BEFORE THE LAND USE BOARD OF APPEALS
OF THE STATE OF OREGON

DTL, INC. dba DOUBLE TEE CONCERTS,
Petitioner,

vs.

CITY OF PORTLAND,
Respondent,

and

BEAM DEVELOPMENT,
Intervenor-Respondent.

LUBA No. 2024-081

FINAL OPINION
AND ORDER

Appeal from City of Portland.

Carrie A. Richter filed the petition for review and reply brief and argued on behalf of petitioner. Also on the brief was Bateman Seidel Miner Blomgren Chellis & Gram, PC.

Robert L. Taylor represented respondent. Lauren A. King filed the respondent's brief and argued on behalf of respondent.

Damien R. Hall filed the intervenor-respondent's brief and argued on behalf of intervenor-respondent. Also on the brief were Nikesh J. Patel and Dunn Carney LLP.

ZAMUDIO, Board Chair; BASSHAM, Board Member; WILSON, Board Member, participated in the decision.

AFFIRMED 06/04/2025

You are entitled to judicial review of this Order. Judicial review is governed by the provisions of ORS 197.850.

Opinion by Zamudio.

NATURE OF THE DECISION

Petitioner challenges a city council decision approving a Major Event Entertainment conditional use and adjustments on land zoned General Industrial 1 (IG1).

BACKGROUND

The subject property is located in the Central Eastside Industrial District (CEID), a subdistrict of the Central City plan district, on the west side of SE Water Avenue between SE Salmon Street and SE Main Street. The IG1 zone implements the Comprehensive Plan map Industrial Sanctuary designation. In addition to industrial uses, the CEID includes event and entertainment venues such as the Oregon Museum of Science and Industry (OMSI), Portland Night Market, and Grand Central Bowl, as well as numerous restaurants and bars. Record 74.

To the west of the site is the I-5 Freeway, Eastbank Esplanade, and the Willamette River. Union Pacific train tracks are located one block east of the site.

FIGURE 1: STUDY INTERSECTIONS AND RAIL CROSSINGS

Record 516.

Intervenor applied to the city for land use review and approval to establish a Major Event Entertainment use and two adjustments for the construction of a 62,000-square-foot building and site improvements for a live music concert venue. Portland City Code (PCC) 33.815.215 governs Major Event Entertainment uses and the purpose statement for that section provides: "These approval criteria ensure that the potentially large size and impacts of these uses are not harmful to surrounding areas and that transportation services are or will be sufficient to serve the use." The approval criteria, quoted below, require the

city to find that the transportation system is capable of supporting the proposed use considering, among other things and as relevant to this appeal, safety and the availability of pedestrian networks. PCC 33.815.215(A)(3)(a). The city also must conclude that "[p]ublic benefits of the proposed use outweigh any impacts that cannot be mitigated." PCC 33.815.215(C).

City staff recommended approval in a staff report to a city hearings officer. The hearings officer held a public hearing and issued a decision approving the application with conditions. The hearings officer's decision was appealed to the city council, which held an on-the-record hearing and issued a decision denying the appeal and upholding the hearings officer's decision with conditions of approval. This appeal followed.

SECOND ASSIGNMENT OF ERROR

PCC 33.815.215 sets out the Major Event Entertainment use approval criteria and provides, in relevant parts:

> "**A. Public Services.**
>
> "* * * * *
>
> "2. If the proposed use will be located in an industrial zone, it will not have a significant adverse effect on truck and freight movement;
>
> "3. Transportation system:
>
> "a. The transportation system is capable of supporting the proposed use in addition to the existing uses in the area. Evaluation factors include safety, street capacity, level of service, connectivity, transit availability, availability

of pedestrian and bicycle networks, access restrictions, neighborhood impacts, impacts on pedestrian, bicycle, and transit circulation. Evaluation factors may be balanced; a finding of failure in one or more factors may be acceptable if the failure is not a result of the proposed development, and any additional impacts on the system from the proposed development are mitigated;

"b. Measures proportional to the impacts of the proposed use are proposed to mitigate on- and off-site transportation impacts. Measures may include transportation improvements to on-site circulation, public street dedication and improvement, private street improvements, intersection improvements, signal or other traffic management improvements, additional transportation and parking demand management actions, street crossing improvements, improvements to the local pedestrian and bicycle networks, and transit improvements.

"c. Transportation improvements adjacent to the development and in the vicinity needed to support the development are available or will be made available when the development is complete or, if the development is phased, will be available as each phase of the development is completed.

"* * * * *

"**C. Benefit.** Public benefits of the proposed use outweigh any impacts that cannot be mitigated[.]"

During the local proceeding, opponents of the venue raised concerns that operation of the venue would create dangerous conditions for pedestrians travelling to and from the venue at train track crossings and road intersections with reported vehicle crashes.

As quoted above, PCC 33.815.215(A)(3)(a) requires the city to find that the "transportation system is capable of supporting the proposed use in addition to the existing uses in the area" taking into account "safety." Intervenor submitted a safety analysis as part of intervenor's transportation impact study (TIS), which was prepared by DKS Associates, a professional transportation engineering firm. Record 512. The TIS identified a study area that included eight intersections and five adjacent at-grade railroad crossings. Record 515. The Portland Bureau of Transportation (PBOT) traffic engineers reviewed the TIS and approved the methodologies, analyses, assumptions, findings, and conclusions therein, and confirmed that the evaluation factors under PCC 33.815.215(A)(3)(a) are addressed and satisfied. The city council agreed with and adopted the findings in the hearings officer's decision, the staff report, and PBOT's memorandum, which all determined that the transportation system is capable of supporting the proposed use in addition to existing uses.

Petitioner argues that the city erred in finding PCC 33.815.215(A)(3)(a) is satisfied with respect to the safety factor. Petitioner argues that city's findings and evidence in the record are inadequate to establish that the traffic generated by the entertainment venue use will be safely accommodated.

A. Waiver

Intervenor initially responds by quoting several of petitioner's specific arguments in the second assignment of error and contends that those arguments were not raised before the city and, thus, are waived. ORS 197.835(3) provides

that LUBA "may only review issues raised by any participant before the local hearings body as provided by ORS 197.195, 197.622 or 197.797, whichever is applicable." ORS 197.797(1), in turn, provides:

> "An issue which may be the basis for an appeal to [LUBA] shall be raised not later than the close of the record at or following the final evidentiary hearing on the proposal before the local government. Such issues shall be raised and accompanied by statements or evidence sufficient to afford the governing body, planning commission, hearings body or hearings officer, and the parties an adequate opportunity to respond to each issue."

The "raise it or waive it" principle does not limit the parties on appeal to the exact same arguments made below, but it does require that the issue be raised below with sufficient specificity to prevent "unfair surprise" on appeal. *Boldt v. Clackamas County*, 21 Or LUBA 40, 46, *aff'd*, 107 Or App 619, 813 P2d 1078 (1991); *Friends of Yamhill County v. Yamhill County*, LUBA No 2021-074 (Apr 8, 2022), *aff'd*, 321 Or App 505 (2022) (nonprecedential memorandum opinion), *rev den*, 370 Or 740 (2023) (slip op at 5-6). A particular issue must be identified in a manner detailed enough to give the local government and the parties fair notice and an adequate opportunity to respond. *Boldt*, 21 Or LUBA at 46. When attempting to differentiate between "issues" and "arguments," there is no "easy or universally applicable formula." *Reagan v. City of Oregon City*, 39 Or LUBA 672, 690 (2001).

A petitioner is required to demonstrate in the petition for review "that the issue raised in the assignment of error was preserved during the proceedings

below. Where an assignment raises an issue that is not identified as preserved during the proceedings below, the petition shall state why preservation is not required." OAR 661-010-0030(4)(d). In the petition for review second assignment of error preservation statement, petitioner states that concerns that the concert venue would create safety conflicts with respect to train crossings, pedestrians, and vehicles were raised below, citing Record 1460, 1728-1729. Petition for Review 13. Opponents argued that the existing high crash frequency of adjacent intersections coupled with a large injection of pedestrians would increase the likelihood of injury or death. Record 1642. Petitioner points to testimony that dangerous behavior of impaired people in and around the nearby train tracks and that this venue would exacerbate these unsafe conditions, citing Record 1391 and 1707.

In its reply brief, petitioner replies, and we agree, that intervenor's waiver argument misapprehends the preservation obligation. The issue raised below, and on appeal in the second assignment of error, is whether the transportation system is capable of safely serving the entertainment venue use for purposes of satisfying PCC 33.815.215(A)(3)(a). Petitioner's specific arguments in the petition for review all address that same issue. The city council findings also specify the safety issues raised below "that the proposed use would generate: conflicts with trains as it relates to pedestrian access and rail crossings; increased darkness and poor visibility for pedestrians at late hours; increased alcohol use; and increased accidents." Record 37. We agree with petitioner that intervenor has not

established that any particular argument in the petition for review raises a new issue that was not raised so that the city or other parties were deprived of an opportunity to respond during the local proceedings. We proceed to analyze the merits of petitioner's arguments under the second assignment of error.

A. PCC 33.815.215(A)(3)(a) Interpretation "Balancing"

On the merits, intervenor responds that the city interpreted and applied PCC 33.815.215(A)(3)(a) by balancing the nine evaluation factors including safety. The city also responds that the city council "found that the plain language of the criterion requires considering and balancing a variety of factors." Respondent's Brief 6 (citing Record 35). The findings state the "Council finds that this criterion requires considering a variety of factors but that the facts are balanced." Record 35. Petitioner argues that the city findings do not "balance" any of the transportation system evaluation factors. Instead, petitioner asserts, the city decided that all of the factors are satisfied, including the safety factor.

With respect to the safety factor, we understand the city accepted and considered the safety concerns identified in the TIS and elaborated upon by opponents' testimony. However, the city concluded that the identified safety concerns are acceptable because the identified unsafe conditions are "not a result of the proposed development, and any additional impacts on the system from the proposed development." PCC 33.815.215(A)(3)(a). For example, the city found that the "overall" cause of collisions reported in crash data for the study intersections was inattentive driving and the proposed venue would not

exacerbate that safety risk. Record 36. With respect to train track crossing safety, the city relied on the TIS assessment that increased traffic from the use would not result in *increased* frequency of train crossing accidents. *Id.*

While petitioner does not expressly pose the second assignment of error as an interpretation challenge, petitioner's findings and evidence arguments are premised on petitioner's proffered interpretation of the safety factor in PCC 33.815.215(A)(3)(a). Specifically, petitioner argues that the city was obligated to "determine what level of safety is required for this facility" and to ensure that the transportation system meets those safety standards with respect to intersection crashes, rail crossing injuries, and pedestrian route safety features, including lighting levels and transportation system features separating pedestrians from vehicular and train traffic. Petition for Review 15. Essentially, petitioner argues that in interpreting and applying the safety factor, the city was required to express more specific standards for determining whether the transportation system is safe and then determine whether the proposed venue use meets those specified safety standards. For example, petitioner argues that PCC 33.815.215(A)(3)(a) requires the city to deny the use if the evidence shows that there is *any* chance of traffic accidents involving patrons of the proposed venue use. Petition for Review 23.[1]

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[1] Petitioner argues that PCC 33.815.215(A)(3)(a) "furthers the City's transportation safety policy that calls for 'Vision Zero' – no accidents." It is not clear to us that a separate city transportation safety policy provides relevant context for the city's interpretation of PCC 33.815.215(A)(3)(a). However, we note that a city transportation safety policy aiming for no accidents is distinct

Petitioner's arguments are not framed within the applicable standard of review. We will reverse or remand a land use decision if we find that the local government improperly construed the applicable law. ORS 197.835(9)(a)(D). We must defer to the city's interpretation of its own plan or regulation if that interpretation is not "inconsistent with the express language of the comprehensive plan or land use regulation" or inconsistent with the underlying purposes and policies of the plan or regulation. ORS 197.829(1); *Siporen v. City of Medford*, 349 Or 247, 243 P3d 776 (2010) (applying ORS 197.829(1)).

> "[T]he plausibility determination under ORS 197.829(1) is not whether a local government's code interpretation best comports with principles of statutory construction. Rather, the issue is whether the local government's interpretation is plausible because it is not expressly *inconsistent* with the text of the code provision or with related policies that 'provide the basis for' or that are 'implemented' by the code provision, including any ordained statement of the specific purpose of the code provision at issue." *Kaplowitz v. Lane County*, 285 Or App 764, 775, 398 P3d 478 (2017) (emphasis in original).

We are not required to defer to an interpretation presented for the first time in the response brief. In order for the deferential standard to apply, the local government's interpretation must be explicit or implicit in the challenged decision. *Green v. Douglas County*, 245 Or App 430, 438-40, 263 P3d 355 (2011). A local government's interpretation of an ordinance or plan provision

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from a land use approval standard requiring an applicant to affirmatively demonstrate that zero traffic accidents are likely to occur in relation to the land use.

need not be explicit; an interpretation may also be "inherent in the way that it applied the standard." *Alliance for Responsible Land Use v. Deschutes County*, 149 Or App 259, 267, 942 2d 836 (1997), *rev dismissed as improvidently allowed*, 327 Or 555, 971 P2d 411 (1998); *1000 Friends of Oregon v. Linn County*, 306 Or App 432, 435, 475 P3d 121 (2020).

In this case, we agree with respondents that petitioner's second assignment of error is premised on petitioner's preferred interpretation of PCC 33.815.215(A)(3)(a) as imposing safety standards that are not contained in the approval criteria. The city evaluated the safety factor considering all of the evidence in the record and concluded that "[t]he transportation system is capable of supporting the proposed use in addition to the existing uses in the area." The city council's interpretation is inherent in the way that it applied the standard. We agree with intervenor that the city council implicitly interpreted the PCC 33.815.215(A)(3)(a) safety factor to not require elimination of all transportation risks. PCC 33.815.215(A)(3)(a) does not provide that any evidence of potential traffic accidents involving vehicles and pedestrians in the vicinity of the venue should result in denial. Neither does the safety factor require a lighting study. Instead, the standard requires the city to evaluate the safety of the transportation system as one factor among nine. We agree with intervenor that the city plausibly interpreted the safety factor to require "a reasoned evaluation, not risk elimination." Intervenor-Respondent's Brief 34. Petitioner does not establish that the city implausibly interpreted PCC 33.815.215(A)(3)(a) to allow the

transportation risks identified in the city's findings and evidence in the record that the city relied upon, including the TIS. We proceed to resolve petitioner's inadequate findings and substantial evidence challenges through this deferential interpretative lens.

Generally, findings must (1) address the applicable standards, (2) set out the facts relied upon, and (3) explain how those facts lead to the conclusion that the standards are met. *Heiller v. Josephine County*, 23 Or LUBA 551, 556 (1992). "What is needed for adequate judicial review is a clear statement of what, specifically, the decision-making body believes, after hearing and considering all the evidence, to be the relevant and important facts upon which its decision is based." *Sunnyside Neighborhood v. Clackamas Co. Comm.*, 280 Or 3, 20-21, 569 P2d 1063 (1977). Findings must address and respond to specific issues relevant to compliance with applicable approval standards that were raised in the proceedings below. *Norvell v. Portland Area LGBC*, 43 Or App 849, 853, 604 P2d 896 (1979). "While a local government is required to identify in its findings the facts it relies upon in reaching its decision, it is not required to explain why it chose to balance conflicting evidence in a particular way, or to identify evidence it chose not to rely on." *Moore v. Clackamas County*, 29 Or LUBA 372, 380 (1995); *see also Tallman v. Clatsop County*, 47 Or LUBA 240, 246 (2004) ("At least where this Board is able to determine that a reasonable decision maker would rely on the evidence the decision maker chose to rely on, findings specifically addressing conflicting evidence are unnecessary.").

A finding of fact is supported by substantial evidence if the record, viewed as a whole, would permit a reasonable person to make that finding. *Younger v. City of Portland*, 305 Or 346, 360, 752 P2d 262 (1988); *Dodd v. Hood River County*, 317 Or 172, 179, 855 P2d 608 (1993). In reviewing the evidence, we may not substitute our judgment for that of the local decision maker. Rather, we must consider all the evidence to which we are directed, and determine whether based on that evidence, a reasonable local decision maker could reach the decision that it did. *Younger*, 305 Or at 358-60. The substantial evidence standard is not satisfied when "the credible evidence apparently weighs overwhelmingly in favor of one finding and the [decision maker] finds the other without giving a persuasive explanation." *Wal-Mart Stores, Inc. v. City of Bend*, 52 Or LUBA 261, 271 (2006) (quoting *Armstrong v. Asten-Hill Co.*, 90 Or App 200, 206, 752 P2d 312 (1998)).

B. Street Intersection and Rail Crossing Safety

The city council's findings begin by explaining that the TIS determined that "with the recommended improvements, the transportation system will be capable of safely supporting the proposed venue, in addition to accommodating existing uses." Record 35. The city also explained that the PBOT traffic engineers reviewed the TIS and confirmed that the evaluation factors in PCC 33.815.215(A)(3)(a) were addressed and satisfied. The city council also agreed with and adopted the findings in the hearings officer's decision, staff report, and

PBOT memorandum, which each determined that the transportation system can support the proposed use in addition to existing uses. Record 35.

The city council findings respond in detail to specific opponent arguments and testimony regarding pedestrian access; street intersection and rail crossing accidents; darkness and poor visibility for pedestrians at late hours; alcohol use; and adequacy of the traffic evidence. The city concluded that "the proposed use is not expected to result in any material change to the frequency of accidents." Record 38. With respect to criticism of the TIS, the city found that the opponents' comments did not provide any empirical traffic data and analysis sufficient to undermine the TIS analysis and conclusions. *Id.* As a whole, the city's findings are adequate because they (1) address the applicable standards, (2) set out the facts relied upon, and (3) explain how those facts lead to the conclusion that the standards are met.

Petitioner argues that the city failed to address specific issues raised below regarding the safety of the transportation system. Petitioner points out that the TIS identifies three intersections as having an "over critical crash rate": SE Water Avenue/I-5 Off Ramp/SE Yamhill Street (study intersection 2); SE Water Avenue/SE Salmon Street (study intersection 3); and SE Water Avenue/SE Hawthorne Boulevard (study intersection 5). Record 524-25. However, the city council's findings specifically address only SE Water Avenue/SE Salmon Street (study intersection 3), concluding that crashes at this intersection were the result

of "inattentive" driving and that, given the improvements to the intersection, "the proposed venue is not anticipated to exacerbate it." Record 36.

Petitioner argues that the city failed to make findings addressing whether the proposed venue use will exacerbate the crash rate at study intersections 2 and 5. Respondents respond, and we agree, that the city was not required to make specific findings on every intersection in the study area identified in the TIS with an "over critical crash rate" in order to find that PCC 33.815.215(A)(3)(a) is satisfied. The city's findings address the study intersections, generally stating that "[t]he most common collision types at the study intersections were angle, turning and rear-end crashes, many of which show 'no yield' or 'disregarded traffic signal' as the cited cause." Record 35. The city pointed to the TIS, which supports that finding. Record 35, 522-25. The city may have focused on study intersection 3 because it is adjacent to the venue site and intervenor will provide frontage improvements adjacent to those intersections, which the city found "can improve driver awareness." Record 36.

Ultimately, the city concluded that the TIS and PBOT memorandum provided sufficient evidence that that the transportation systems is capable of supporting the proposed use. The city further found:

> "[T[he proposal is designed to ensure safe conditions for all modes and PBOT standards are designed to provide safe conditions for all modes, especially pedestrian and cyclists. The applicant will be required to dedicate property along all three frontages and reconstruct the abutting pedestrian corridor to City standards. Exhibit H-16, at 3. The TIS also recommended curb extensions at

> both the SE Salmon and SE Main Street intersections. The curb extension into SE Main Street (see Figure 10 of Exhibit A-10) would shift the travelway slightly south for drivers heading westbound away from SE Water Avenue and would provide space for a tour bus to be staged on-street during events to the east of the loading dock for the proposed venue. Exhibit A-10, at 36-37. The curb extension into SE Salmon is adjacent to the proposed bike parking on SE Salmon Street and is recommended to support the proposed bike parking. *Id.* at 37 and 39. As noted by PBOT, there is also a planned two-way cycle track along the site's SE Water frontage in the future. Exhibit H-16, at 3. Additional safety improvements such as crosswalk stripping, signage, lighting, etc. will be determined during the review of the Public Works permitting process. Exhibit H-16, at 3." Record 36-37.

Those findings are adequate and supported by substantial evidence.

Petitioner argues that licensed traffic engineer H. Lee independently evaluated the traffic safety concerns and that the findings do not respond to all of Mr. Lee's testimony. Record 1457-58. The city responds that the city council explicitly rejected opponents' testimony related to safety and increased accidents at Record 37-38. The city expressly rejected H. Lee's testimony because the city council found that Lee's comments "simply agree[d] with appellant without providing any empirical traffic data and analysis." Record 38. The city was not required to respond to every comment in opponents' testimony.

C. Train Rail Crossing Safety

Petitioner argues that the city failed to adopt adequate findings supported by substantial evidence that the transportation system is safe with respect to travel across train tracks to and from the proposed venue site. The TIS reports that over

a five-year period, three train collisions were reported, two of which were fatal.[2] Petitioner points out that "[g]iven the location of surface parking and transit, opponents calculated that approximately one-third of the visitors to this venue would have to cross these tracks either on foot or by car at least twice in order to access this venue." Petition for Review 22.

The city found that, based on the TIS At-Grade Study Rail Crossing Safety Assessment, "the accident probability analysis found the study crossings to be well below 0.50 accidents per year with existing crossing safety protection, and the increased traffic in the 2025 Build scenario would not be expected to result in any material change to the frequency of accidents compared to the 2025 No-build scenario." Record 36. The city further found that, as explained in the TIS:

> "[T]he standard protective devices at rail crossings in Oregon are installed and maintained by the railroad (not the applicant or the City) per OAR 741-110-0020 to 0090 and 741-115-0010 to 0080. Exhibit H-52, at 4. The crossing characteristics near the proposed venue are documented in the TIS at SE Stark Street, SE Yamhill Street, SE Salmon Street, SE Main Street and SE Clay Street (see page 6 of the TIS), and include advance warning pavement markings and signage, and post mounted flashing light signals, automatic gates and supplemental signage indicating the number of tracks at the crossing, with the crossing at SE Clay Street also including flashing-light signals on cantilevered supports. Exhibit H-52, at 4. These grade crossings also include nearby illumination to provide

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[2] "Two of these incidents were caused by pedestrians ignoring the flashing light signals and audible warnings (one each at the SE Salmon Street and SE Clay Street crossings), while the third was a reported pedestrian suicide at the SE Salmon Street crossing." Record 1565.

light during hours of darkness. Exhibit H-52, at 4. Exhibits H-49, H-50, H-51 show that visibility at night in the surrounding area and at the site are not impaired and include nearby illumination. Exhibit H-52 (at. p. 2) further demonstrates that rail crossings do not pose operational safety concerns." Record 37.

Petitioner argues that the TIS At-Grade Study Rail Crossing Safety Assessment "appears directed solely at vehicles and does not appear to take into account any changes in the volume of pedestrians or bicyclists, much less the need for additional warnings or protections." Petition for Review 24. Petitioner also contends that the described crossing protective warnings and gates provide safety features for vehicles and not pedestrians.

Intervenor responds that a DKS Associates Technical Memorandum (DKS Rail Crossing Memo) in the record further addresses rail crossings and demonstrates that existing rail crossing safety devices indicate the crossing and trains to motorists, bicyclists, and pedestrians. Record 1565. The city's findings with respect to rail crossing safety are adequate and supported by substantial evidence.

D. Street Lighting

Opponents raised safety concerns about the lack of adequate street lighting to allow pedestrians to safely access transit, parking, and rideshare resources. Record 1686. Intervenors responded by submitting photographs of the area in the evening showing sidewalks and streetlights. Record 1547-1561. The city found:

"[T]here is sufficient street lighting in the area surrounding the site and along the streets which provide pedestrian access to the site, as demonstrated by the photographs of the area taken on 7/23/24 at

> approximately 10pm. See Exhibits H-49, H-50, H-51. Further, development of the proposed venue will result in new street lighting improvements to city standards immediately adjacent to the site, further ensuring an adequately lit and safe experience for venue patrons." Record 37.

Petitioner observes that the photographs were taken in the summer and contends that no reasonable person would conclude that those photographs demonstrate adequate lighting on a rainy winter night. Petitioner also points out that the photographs are not labeled with locations.

Many of the photos include street intersection signs and petitioner does not dispute that the photographs depict street lighting in the area surrounding the site and along the streets which provide pedestrian access to the site. We conclude that a reasonable person could rely on the photographs in the record to conclude that there is adequate lighting to allow for safe pedestrian transportation in the vicinity of the venue.

In sum, the city's transportation safety evaluation and conclusion that "the transportation system is capable of supporting the proposed use in addition to the existing uses in the area" plausibly interprets the city standard and is supported by adequate findings and substantial evidence. PCC 33.815.215(A)(3)(a).

The second assignment of error is denied.

FIRST ASSIGNMENT OF ERROR

Petitioner argues that the city's conclusion that "the transportation system is capable of supporting the proposed use in addition to the existing uses in the area" considering pedestrian facilities and transit connection is unsupported by

adequate findings and substantial evidence. PCC 33.815.215(A)(3)(a). Petitioner emphasizes the undisputed fact that the entertainment venue will increase pedestrian traffic in an industrially zoned area. No bus or other transit service passes directly by the venue site. Nearby transit stops are three to four blocks away from the site and some are up flights of stairs that are not accessible in compliance with the Americans with Disabilities Act (ADA). 42 U.S.C. § 12101 et seq. (1990). Those individuals who are unable to utilize the stairs must travel a four to five-block route that crosses train tracks to reach SE MLK Boulevard and SE Grand Avenue.

The city found:

> "Pedestrian, Cycling, and Transit Availability: The proposed venue is very accessible to pedestrians and bicyclists and is well-served by a network of continuous sidewalks and bike facilities on the surrounding streets between nearby existing private vehicle parking, bike parking, ride hailing or transit stops. Exhibit A-10, at 11. The proposed venue is also adjacent to existing bikeways along the Eastbank Esplanade, SE Water Avenue and SE Salmon Street. Exhibit A-10, at 7. Current transit service near the proposed venue is primarily accessed via stops located on SE Grand Avenue and SE Martin Luther King Jr Boulevard between SE Salmon Street and SE Taylor Street, on the SE Madison Street and SE Hawthorne Boulevard viaducts (accessed via stairs from SE Water Avenue), on the SE Morrison Street and SE Belmont Street viaducts (accessed via stairs from SE Water Avenue), along SW 1st Avenue in downtown Portland across the Morrison Bridge, and near SE Tilikum Way. Exhibit A-10, at 7-8, 58. Event attendees and employees who utilize transit for travel to and from the venue would primarily utilize SE Water Avenue, SE Salmon Street and the Eastbank Esplanade to access transit services before and after events. Exhibit A-10, at 58. Current schedules indicate that the

> TriMet Routes 6, 14 and 15 and MAX light-rail service near the proposed venue extends beyond the conclusion of a typical event (i.e., expected to be 11:00 p.m. or later for most events). Exhibit A-10, at 58." Record 39.

Petitioner argues that the city failed to analyze whether the existing sidewalk system is adequate by finding it is safe and accessible for all users.[3] The TIS includes a table of Existing Roadway Characteristics Near the Proposed Venue that states that there are sidewalks on both sides of the street on roadway segments directly adjacent to the site. Record 519. Petitioner argues that limited assessment is inadequate. Petitioner points out that PBOT did not evaluate or provide any independent evidence of the availability or condition of pedestrian routes to transit stops. Petitioner argues that a finding that PCC 33.815.215(A)(3)(a) is satisfied requires "evidence in the form of a sidewalk inventory and conditions study that evaluates the condition of sidewalks on the multiple blocks that intervenor admits are necessary for concert-goers to reach transit stops and parking lots[.]" Petition for Review 11.

Petitioner argues that the evidence in the record demonstrates that the pedestrian routes are inadequate because they are not connected, well lit, or ADA accessible. For example, petitioner points out that transit on the SE Madison Street, SE Hawthorne Boulevard, SE Morrison Street and SE Belmont Street

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[3] Intervenor argues that petitioner has failed to establish that the arguments raised in the first assignment of error are preserved. We reject that waiver argument using the same reasoning explained in rejecting intervenor's waiver argument under the second assignment of error.

viaducts are accessed via stairs from SE Water Avenue, and those stairs are not ADA accessible. Petitioner also points to a photograph showing that the sidewalk on the northeast corner of SE Water Avenue/SE Salmon Street intersection (study intersection 3) has no ramp access and is not ADA accessible. Petitioner explains that this sidewalk corner is diagonally across the street from the primary venue entrance and, without any planned or required sidewalk improvements, a wheelchair user heading in an easterly direction along SE Salmon Street would be forced to proceed in the vehicle travel lane. Petitioner argues these deficiencies preclude a conclusion that PCC 33.815.215(A)(3)(a) is satisfied.

The city responds by acknowledging that the federal ADA requires the city to provide a program or service for an accessible pedestrian path of travel. However, the city responds that PCC 33.815.215(A)(3)(a) does not require the city to find compliance with the ADA in the challenged land use decision. The city cites *Rogue Advocates v. Josephine County*, 72 Or LUBA 275, 292 (2015) and *Kenney v. Tillamook County*, LUBA No 2020-117 (Apr 26, 2021) for the proposition that, absent a land use regulation or other applicable law that requires the city to address compliance with state and federal laws in approving the application, the city's failure to adopt such findings or impose conditions is not legal error. Thus, here, the city was not required to adopt findings addressing the ADA because it is not an applicable approval standard.

The city emphasizes that intervenor is required to dedicate and improve the frontages on its property, and those improvements must comply with ADA

standards.[4] The city also points out that corners on the sidewalks adjacent to the site already include curb cuts. Record 1035; 1036; 1038; 1039. The city argues that, viewing the record as whole, a reasonable person could conclude that the pedestrian network is capable of supporting the proposed use. We agree. The city's reasoning in its response brief is also implicit in the city council's decision. While "availability of pedestrian and bicycle network" could be interpreted to include all pedestrians and cyclists, including those with limited mobility, that provision does not require the applicant to demonstrate or the city to find that all pedestrian and bicycle routes to the venue are ADA accessible. The fact that some sidewalks or access points in the area do not conform to ADA standards does not undermine the city's conclusion that PCC 33.815.215(A)(3)(a) is satisfied with respect to "availability of pedestrian and bicycle network," or demonstrate that that finding is not supported by substantial evidence.

With respect to transit, the city points out that the venue site is located in the central city area and is served by multiple public transit modes, including TriMet bus service, the Portland Streetcar, and the MAX line, with routes that "provide transfer opportunities to other MAX light-rail and TriMet bus routes in downtown Portland." Record 521-22. In response to petitioner's argument that some of the nearby transit stops are not ADA accessible due to stairs, the city

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[4] The city explains that it will not require intervenor to construct a new sidewalk on a vacant lot that the intervenor does not own as a condition of approval. Respondent's Brief 10.

explains that "a pedestrian can avoid the stairs and access many of those same transit stops by traveling a few additional blocks." Respondent's Brief 11.

Petitioner argues that the city's findings are inadequate because the decision does not include findings responding to testimony that the venue and nearby transit stops are not wheelchair accessible. The city responds, and we agree, that the city is not required to address all comments. *See Oregon Coast Alliance v. City of Bandon*, LUBA No 2024-020 (Sept 5, 2024) (slip op at 11) ("While a local government is required to identify the facts it relied upon in reaching its decision, it is not required to explain why it chose to balance conflicting evidence in a particular way, or to identify evidence it chose not to rely on."). The city's findings address the central issue raised by the comments—whether the transportation system is capable of supporting the proposed use considering the availability of pedestrian and bicycle networks. PCC 33.815.215(A)(3)(a).

Petitioner also argues that, for the same reasons petitioner argues that the pedestrian, bicycle, and transit networks are not capable of supporting the proposed use, the evidence does not support the "connectivity" factor in PCC 33.815.215(A)(3)(a). The city found that the connectivity consideration is satisfied by satisfaction of the street connectivity access standards in PCC 17.88.040. Record 39. Petitioner does not challenge that finding and interpretation. Accordingly, petitioner's PCC 33.815.215(A)(3)(a) connectivity factor argument provides no basis for remand.

The first assignment of error is denied.

THIRD ASSIGNMENT OF ERROR

To approve a Major Event Entertainment use, the city must find that "[p]ublic benefits of the proposed use outweigh any impacts that cannot be mitigated." PCC 33.815.215(C). We refer to that criterion as the benefit standard. Petitioner argues that the city council failed to interpret the benefit standard and, to the extent the city did interpret the standard, the city's interpretation is inconsistent with the express language of PCC 33.815.215(C) and the city's comprehensive plan.

A. The city council interpreted and applied PCC 33.815.215(C).

Petitioner argues that the city council misunderstood its scope of review in the local appeal as limited to reviewing the hearings officer's interpretation and, thus, the city council failed to interpret the benefit standard in the first instance. In support of that argument, petitioner quotes the mayor's opening statements at the public hearing. The city responds, and we agree, that we review the city's final written decision, not statements made during the proceedings. *Toth v. Curry County*, 22 Or LUBA 488, 492 (1991). The final decision includes the city council's interpretation and application of the benefit standard, as examined further below.

B. The city council's interpretation of PCC 33.815.215(C) is plausible and entitled to deference.

The city found the proposed use would result in the following public benefits: (1) increased activity on a historically vacant lot will deter crime; (2) infrastructure improvements; and (3) induced economic activity will have a positive effect on surrounding businesses. The city found that the only impact is the number of trips the venue use generates but that mitigations reduce those impacts. Record 44. The city found:

> "The concert venue would create a higher level of activity in the evenings to deter crime and support nearby bars and restaurants without interfering with industrial businesses that operate primarily in the daytime. In addition, the applicant would be required to install public improvements such as wider sidewalks and street trees around the development site. As explained in the Staff Report, such public infrastructure improvements surrounding the block will improve the safety and security of the pedestrian environment for people who live and work in the area. Exhibit A-12, at 9; see also, Exhibit H-16.
>
> "Additionally, as further reflected in the Economic Impacts Analysis, the proposed use provides extensive public benefits that positively contribute to the area. Exhibit H-36, at 4-37. As described in detail in the analysis, these benefits include: new employment, payroll, spending with local vendors on construction and operations, new tax revenue, and indirect and induced economic activity to the surrounding area. *Id.*
>
> "Further, Council finds that the only impact relevant to the land use review approval criteria are impacts to the surrounding neighborhood. Here, the impacts are the amount of trips the site generates, summarized in the TIS. Mitigations are summarized in the TIS and transportation and parking demand management (TDM) and include public frontage improvements and TDM methods. See

Exhibit A-10, Section 1; see also, Exhibit H-54. As explained in the Staff Report, there are no identified negative impacts from the proposed use that cannot be mitigated. Exhibit H-5, at 11. As noted above, the venue would largely operate outside the hours of operation of most businesses in the industrial area, and as stated in the findings above for criterion A above, public services, including the transportation system, are adequate to accommodate the proposed use." Record 44.

During the local proceeding, opponents argued that the public benefits of the proposed entertainment venue are not outweighed by the impacts that cannot be mitigated. In response to opponents' testimony, the city found:

"[S]ome testifiers including the appellant posed concerns regarding the tenant/operator of the proposed venue (Live Nation) and alleged that the operator and its business practices would negatively impact the local music and entertainment industry by squeezing out local promoters and artists. See Exhibit H-35; see also, appellant's memorandum to Council dated September 18, 2024. Such interpretations by testifiers and the appellant appear to focus on the 'benefit' standard, which states 'Public benefits of the proposed use outweigh any impacts that cannot be mitigated.' The thrust of these arguments is that Council should interpret the phrase 'any impact' as broadly as possible to include considerations about future economic impacts on venues and the local music and entertainment industry. Council rejects these contentions because Council's review is limited to application of the Zoning Code, not speculative and generalized market impacts.

"Specifically, such an overbroad interpretation is inconsistent with the purpose of the Major Event Entertainment conditional use standards, which is to ensure that the impacts of such uses 'are not harmful to surrounding areas and that transportation services are or will be sufficient to serve the use.' PCC 33.815.215. Consistent with this purpose statement, Council finds that the term 'impacts' as used in PCC 33.815.215.C means impacts to the surrounding area and transportation services are land use impacts applying a

> geographically constrained analysis related to land use impacts such as noise, light, traffic, etc. In contrast, opponents interpret the criteria to regulate uncertain economic outcomes that would occur at an unknown time and place and are not directly caused by holding events at the proposed venue. Further, while the appellant cites to *Belluschi v. City of Portland*, 53 OR LUBA 455 (2007) as informative to the interpretation of this standard, it is not controlling for the reasons discussed above. Moreover, the use being proposed is a Major Event Entertainment use, which does not include consideration of the proposed operator (public, private, large, or small). PCC 33.920.230. Therefore, Council rejects these arguments because such contentions are unrelated to the approval criteria, and finds that substantial evidence in the record demonstrates that there are no impacts that cannot be mitigated.
>
> "Because there are no negative impacts identified that cannot be mitigated and which public benefits must outweigh, Council finds that criterion C is met based on substantial evidence in the record." Record 44-45.

Petitioner argues that the city council's interpretation of PCC 33.815.215(C) is inconsistent with the express language of that regulation. Petitioner argues that the city limiting its consideration to only those impacts affecting the surrounding area is inconsistent with the meaning of the term "any." The term "any" is not defined in for purposes of PCC 33.815.215(C), so we look to the plain meaning of that word. Petitioner provides the following definition: "one, no matter what one: Every - used as a function work esp. in assertions and denials to indicate one that is selected without restriction or limitation of choice." *Webster's Third New Int'l Dictionary* 97 (unabridged ed 2002).

The city responds, and we agree, that the city's interpretation of "any impacts" as referring to impacts "to surrounding areas" based on the purpose

statement of PCC 33.815.215 is not inconsistent with the plain meaning of "any" and is consistent with the purpose of the regulation. Thus, we must defer to the city's interpretation. ORS 197.829(1); *Siporen*, 349 Or at 259.

Petitioner argues that the city council failed to adequately describe the "surrounding area." The city responds, and we agree, that PCC 33.815.215(C) does not specify the scope of the surrounding area and the city plausibly implicitly interpreted the surrounding area to include adjacent and nearby existing uses and evaluated benefits and impacts within the TIS study area. The city rejected opponents' proffered interpretation that the city should evaluate the benefit and impacts on a city-wide scale.

Petitioner argues that the city's "surrounding area" interpretation "fails to require any meaningful industrial benefit and the industrial benefits that are identified are not supported by substantial evidence." Petition for Review 37. Petitioner argues that the city must interpret the public benefit criterion in context of the purpose of the General Industrial zone, as set out in PCC 33.140.030(C):

> "The General Industrial zones are two of the three zones that implement the Industrial Sanctuary map designation of the Comprehensive Plan. The zones provide areas where most industrial uses may locate, while other uses are restricted to prevent potential conflicts and to preserve land for industry. The development standards for each zone are intended to allow new development which is similar in character to existing development. The intent is to promote viable and attractive industrial areas."

Petitioner also quotes Comprehensive Plan Policy 6.37, which is to "[p]rotect industrial land as industrial sanctuaries identified on the Comprehensive Plan

Map primarily for manufacturing and distribution uses and to encourage the growth of industrial activities in the city."

In response to this argument below, the city found:

> "The appellant (Exhibit H-35) contended that there are no public benefits that flow to industrial uses and such use improperly develops an industrial lot as a non-industrial use. These contentions are misplaced. Without the proposal, the lot would remain vacant and unproductive as it has been since July 2007, and would continue to consist of unimproved roads. See Exhibit H-45, at 1-2; see also Exhibit H-48. With the proposal however, as noted above, the proposed use provides extensive public benefits to the surrounding uses and area including public infrastructure improvements and benefits to local industry activity (e.g. employment, income, or business revenues). Exhibit H-36, at 4-37; see also, Exhibit H-16. A use like the proposed venue use is expected to revitalize the Central City by generating more activation points and increased foot traffic. See Exhibit H-47. The proposed venue is also not inconsistent with industrial uses. All employment and industrial zones in the City conditionally allow Major Event Entertainment uses (PCC Chapter 33.140 Table 140-1), and as explained above, the proposed use will operate outside of the hours of nearby businesses." Record 44.

On appeal, the city responds, and we agree, that the city council decided to allow Major Event Entertainment as conditional uses in industrial zones and adopted the Major Event Entertainment use criteria to prevent conflicts with industrial uses. Under petitioner's interpretive argument, any Major Event Entertainment use in an industrial zone would conflict with the comprehensive plan. The city's interpretation that a Major Event Entertainment use is an allowed conditional use in the IG1 zone, so long as it complies with the applicable criteria,

is not inconsistent with the comprehensive plan and is plausible and entitled to deference.

The third assignment of error is denied.

The city's decision is affirmed.

BEFORE THE LAND USE BOARD OF APPEALS

OF THE STATE OF OREGON

DTL, INC. dba DOUBLE TEE CONCERTS, Petitioner, v. CITY OF PORTLAND, Respondent.	LUBA No. _____

NOTICE OF INTENT TO APPEAL

I.

Notice is hereby given that Petitioner DLT Inc. dba Double Tee Concerts intends to appeal a decision by the City of Portland regarding "LU 230111784 CU AD" – a conditional use and adjustment review decision approving a new 62,000 square foot concert venue on the west side of SE Water Avenue between SE Salmon and SE Main Streets. Notice of this decision was issued on October 8, 2024.

II.

Petitioner has as its mailing address and telephone number: DLT Inc. dba Double Tee Concerts, 8 NW 6th Ave, Portland, OR 97209 and telephone number: (503) 221-0288 and email address dt2@doubletee.com. Petitioner is represented by Carrie A. Richter, Bateman Seidel, 1000 SW Broadway, Ste 1910, Portland, Oregon 97205; telephone number: (503) 972-9968 and email address crichter@batemanseidel.com.

III.

Respondent City of Portland has as its mailing address and telephone number: City of Portland, 1221 SW 4th Avenue, Room 130, Portland, OR 97204; telephone (503) 823-4082. City of Portland has as its legal counsel Robert L. Taylor, Portland Office of City Attorney, 1221 SW 4th Ave Ste 430, Portland OR 97204, telephone: (503) 823-4047 and email address robert.taylor@portlandoregon.gov.

IV.

The applicant was Johnathan Malsin, Beam Development, which has as their mailing address: 1001 SE Water Ave, Ste. 400, Portland, OR 97214 and telephone: (503) 595-0140 and email address jonathan@beamdevelopment.com. The applicant's representative is Damian Hall, Dunn Carney LLP, 851 SW 6th Ave Ste 1500, Portland OR 97204 and their telephone: (503) 306-5305 and email dhall@dunncarney.com.

The owner was PDC dba Prosper Portland, which has as their mailing address: PDC dba Prosper Portland, 220 NW 2nd Ave, Ste. 200, Portland, OR 97209 and telephone: (503) 823-3200. The owner's agent is Paul Gagliardi, which has as their mailing address: PDC dba Prosper Portland, 220 NW 2nd Ave, Ste. 200, Portland, OR 97209 and telephone: (503) 823-7955 and email address gagliardip@prosperportland.us.

V.

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Portland, OR 97204

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NOTICE

Anyone who desires to participate as a party in this case before the Land Use Board of Appeals must file with the Board a Motion to Intervene in this proceeding as required by OAR 661-010-0050.

Dated: October 29, 2024.

BATEMAN SEIDEL MINER
BLOMGREN CHELLIS & GRAM, P.C.

By: _____
Carrie A. Richter, OSB #003703
Attorneys for Petitioner

CERTIFICATE OF FILING AND SERVICE

I hereby certify that on October 29, 2024, I caused to be filed the original and two copies of this NOTICE OF INTENT TO APPEAL with:

Land Use Board of Appeals
775 Summer Street NE, Suite 330
Salem, OR 97301-1283

by mailing by CERTIFIED MAIL.

On the same date, I caused to be served a true and correct copy by first-class mail, postage prepaid, on all persons listed in Paragraphs III, IV and V of this notice.

Dated: October 29, 2024.

BATEMAN SEIDEL MINER
BLOMGREN CHELLIS & GRAM, P.C.

By: _____
Carrie A. Richter, OSB #003703
Attorneys for Petitioner

IN THE CITY COUNCIL OF THE
CITY OF
PORTLAND, OREGON

IN THE MATTER OF AN APPEAL
BY MUSICPORTLAND OF THE TYPE III CONDITIONAL USE AND ADJUSTMENT REVIEW
FOR A NEW MAJOR EVENT ENTERTAINMENT USE IN THE CENTRAL EASTSIDE

LU 23-111784 CU AD

FINDINGS AND CONCLUSIONS

ADOPTED BY THE CITY COUNCIL ON OCTOBER 2, 2024

(DENIAL of appeal and APPROVAL of Conditional Use and Adjustment Review

IN THE CITY COUNCIL OF THE CITY OF PORTLAND, OREGON

IN THE MATTER OF AN APPEAL BY MUSICPORTLAND OF THE TYPE III CONDITIONAL USE FOR A NEW MAJOR EVENT ENTERTAINMENT USE AND ADJUSTMENT REVIEW IN THE CENTRAL EASTSIDE
LU 23-111784 CU AD

FINDINGS AND CONCLUSIONS

GENERAL INFORMATION

Applicant's Representative:	Suzannah Stanley Mackenzie 1515 SE Water Ave., Ste. 100 Portland OR 97214 (971) 346-3808 sstanley@mcknze.com
Applicant:	Johnathan Malsin Beam Development 1001 SE Water Ave., Ste. 400 Portland, OR 97214
Property Owner's Agent:	Paul Gagliardi PDC dba Prosper Portland 222 NW 5th Ave. Portland, OR 97209
Property Owner:	PDC dba Prosper Portland 220 NW 2nd Ave. #200 Portland, OR 97209
Site Address:	west side of SE Water Ave. between SE Salmon St. and SE Main St.
Legal Description:	LOT 1 TL 3602, PARTITION PLAT 2016-7; LOT 1 TL 4305, PARTITION PLAT 2016-8; LOT 1 TL 1705, PARTITION PLAT 2016-9
Tax Account No.:	R649670250, R649670290, R649670330
State ID No.:	1S1E03AD 03602, 1S1E03AD 04305, 1S1E03AD 01705
Quarter Section:	3130
Neighborhood:	Buckman, contact John Rose or Josh Baker at buckmanlandusepdx@gmail.com
Business District:	Central Eastside Industrial Council, contact ceic@ceic.cc.
District Coalition:	Southeast Uplift, contact at operations@seuplift.org
Plan District:	Central City (Central Eastside Subdistrict)
Zoning:	IG1 – General Industrial 1
Case Type:	CU AD – Conditional Use Review and Adjustment Review
Procedure:	Type III, with a public hearing before the Hearings Officer. The decision of the Hearings Officer can be appealed to City Council.

Proposal: The applicant proposes to construct a new, 62,000-square-foot building on this site to be used as a concert venue with 1,280 seats and a maximum spectator capacity of 3,500. The applicant requests Conditional Use Review approval for a new Major Event Entertainment use in the IG1 zone. Type III Conditional Use Review is required by Zoning Code Sections 33.140.100.C and 33.815.040.A.1.

The applicant also requests approval of two Adjustments to Zoning Code requirements for this project:

- To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c). The applicant proposes to create 2 truck loading spaces which are primarily in the public right-of-way adjacent to the site. However, loading areas in the public right-of-way do not count toward the Zoning Code requirement.

- To reduce the amount of ecoroof area required from 14,617 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 4,670 square feet (Zoning Code Section 33.510.243.B.1).

Note: The applicant originally requested three Adjustments, including an Adjustment request to Zoning Code Section 33.266.200.B.1 to reduce the minimum number of on-site, short-term bike parking spaces from 32 to zero. The applicant had proposed to construct bike parking in the public right-of-way adjacent to the site as justification for this Adjustment. After discussion with the Portland Bureau of Transportation (PBOT), the applicant decided to withdraw this Adjustment request (Exhibit G-3). The applicant will pay into PBOT's bike parking fund when the building permit is issued, as required by Zoning Code Section 33.266.210.E.1.b when there is insufficient space on-site to provide the required short-term bike parking. PBOT would then construct and maintain bike parking in the public right-of-way.

Relevant Approval Criteria: To be approved, this proposal must comply with the approval criteria of Title 33, the Portland Zoning Code. The applicable approval criteria are:

- Zoning Code Section 33.815.215.A-D (Conditional Use Review); and
- Zoning Code Section 33.805.040.A-F (Adjustment Review).

The Portland Zoning Code is available online at https://www.portland.gov/code/33.

ANALYSIS

Site and Vicinity: The subject site consists of three undeveloped lots owned by Prosper Portland in the Central Eastside industrial area. The middle lot, which abuts SE Salmon Street to the north, SE Water Avenue to the east, and SE Main Street to the south, is the subject of this development proposal. No new development is proposed for the other two Prosper Portland lots to the north and south, and these lots would continue to be used as parking. The site is at the western edge of the industrial area, and properties to the north, east, and south of the Prosper Portland property are developed with commercial and industrial buildings. To the west of the subject site is the I-5 freeway right-of-way, and beyond that is the Eastbank Esplanade and the Willamette River. The on-ramp to the Hawthorne Bridge is just south of the site.

Zoning: The IG1 (General Industrial 1) zone is one of the three zones that implement the Industrial Sanctuary map designation of the Comprehensive Plan. The zone provides areas where most industrial uses may locate, while other uses are restricted to prevent potential conflicts and to preserve land for industry. IG1 areas generally have smaller lots and a grid block pattern.

The Central City plan district implements the Central City Plan and other plans applicable to the Central City area. The district implements portions of these plans by adding code provisions which address special circumstances existing in the Central City area.

Land Use Review History: Below are prior land use review decisions that include the subject site. None of these land use review decisions have conditions of approval that affect the current proposal.

- LU 14-235124 LC. 2015 approval of a lot consolidation.
- LU 11-171075 AD. 2011 approval of Adjustments to landscaping and exterior activity requirements for a temporary (3-year) asphalt and concrete processing use. The approval has since expired.
- LU 00-00704 GW AD. 2001 approval of a Greenway Review and Adjustments to landscaping and nonconforming upgrades requirements for a parking lot.
- LU 00-00134 GW. 2000 approval of a Greenway Review for new fencing.
- CU 063-86. 1986 Conditional Use Review approval for fill associated with a Willamette River greenway trail.

Agency Review: A "Request for Response" was sent to City agencies May 29, 2024 (Exhibit D-1). The following City reviewers responded:

- The Bureau of Environmental Services (BES) evaluated the approval criterion related to sanitary sewer service and stormwater disposal. The response is referenced in the findings for Zoning Code Section 33.815.215.A.4, below. (Exhibit E-1)
- PBOT evaluated the approval criteria related to the transportation system. The responses are referenced in the findings for Zoning Code Section 33.815.215.A.1-3, below. (Exhibits E-2 and H)
- The Water Bureau responded with no concerns. (Exhibit E-3)

- The Fire Bureau responded with information on building permit requirements and no objections to approval. (Exhibit E-4)

- The Police Bureau responded that police can adequately serve the proposed development. (Exhibit E-5)

- The Site Development Review Section of the Bureau of Development Services (BDS) responded with information on building permit requirements and no objections to approval. (Exhibit E-6)

- The Life Safety Review Section of BDS responded with information on building permit requirements and no objections to approval. (Exhibit E-7)

- The Urban Forestry Division of the Parks Bureau responded with information on street tree requirements and no objections to the land use review proposal. (Exhibit E-8)

Neighborhood Review: Signs notifying neighbors of the public hearing were posted on June 6, 2024 (Exhibit D-3) and a "Notice of Public Hearing" was mailed to neighbors on June 20, 2024 (Exhibits D-4 and D-5).

The application generated significant interest from members of the public and community stakeholders. Like many projects, the application attracted proponents and opponents. The parties to this case submitted a substantial amount of written evidence and argument into the record. Responses to issues directly related to the relevant Conditional Use approval criteria (PCC 33.815.215.A-D) and Adjustment approval criteria (PCC 33.805.040.A-F) submitted by the public are addressed in the Council findings below.

Procedural History: The application for this land use review was submitted on December 22, 2023, and was determined to be complete on May 23, 2024. The Staff Report and Recommendation to the Hearings Officer was issued prior to the hearing before the Hearings Officer. The hearing before the Hearings Officer was held on July 10, 2024. The Hearings Officer held the record open until July 17, 2024, for new evidence, July 24, 2024 for rebuttal evidence, and July 31, 2024 for final legal argument. The record of the hearing was therefore held open consistent with the requirements of ORS 197.797(6). On August 14, 2024, the Hearings Officer, having reviewed and considered all the evidence and argument in the record, issued a decision approving the application with conditions. Music Portland subsequently filed a timely appeal of the Hearings Officer's decision to the City Council on August 27, 2024. The City Council held an on the record hearing on the appeal on September 19, 2024, and unanimously voted to tentatively deny the appeal and uphold the Hearings Officer's Decision with conditions of approval. At the close of the City Council hearing on September 19, 2024, the City Council set a date for adoption of findings and a final vote. At the final proceeding on **October 2, 2024,** the City Council adopted the findings contained in this Decision and the Hearings Officer's final conditions of approval.

Because the appeal to the City Council was an on-the-record proceeding, evidentiary submittals were limited to the evidence that was in the record on the date the Hearings Officer closed the public record; in this case that date is July 31, 2024. No new evidence was permitted during the City Council proceedings. The City Attorney and City Planner monitored the evidence submitted into the record after July 31, 2024, and during the City Council proceedings advised the City Council on a list of submittals that they believed were not previously submitted into the record before the Hearings Officer. The following is a list of new evidence that was submitted to the City Council at the September 19, 2024 appeal hearing:

- The decision adopted by Prosper Portland at their September 18, 2024, meeting, and any information and discussions arising from the Prosper Portland hearing
- Discussions of prior attempts to build mid-size concert venues in the city (though discussion of a current proposal for another mid-size venue was in the record).
- Comments related to impacts from a recent Live Nation-sponsored event at Providence Park
- Information related to pending federal litigation and enforcement against Live Nation that were beyond the close of the record
- Comments regarding allegations of bullying by the applicant's team and use of the word "firebombing" by opponents
- Comments related to experiences at Live Nation concerts in Bend, Oregon, and in Austin, Texas

No party objected to the exclusion of this new evidence and the City Council rejected this evidence from consideration. To the extent any of the many submittals after July 31, 2024, contain new evidence, such evidence is rejected and not included in the record and is not relied on by the City Council this decision.

ZONING CODE APPROVAL CRITERIA

Conditional Use Review

33.815.215 Major Event Entertainment
These approval criteria ensure that the potentially large size and impacts of these uses are not harmful to surrounding areas and that transportation services are or will be sufficient to serve the use. The approval criteria are:

A. Public services.

1. The proposed use is in conformance with the street designations shown in the Transportation Element of the Comprehensive Plan;

Findings: As a preliminary matter, as described in the purpose statement, Council generally interprets the Major Event Entertainment Conditional Use Review criteria to consider the impact of the proposed use on the surrounding area. For the purposes of this criterion, surrounding area is not defined but Council generally interprets the term to include the neighborhood. More explicitly, Council rejects the interpretation that suggests the purpose statement require Council to consider whether a particular tenant (or user) would have an impact on the city as a whole.

Compliance with this standard is demonstrated by substantial expert evidence in the record. PBOT provided a detailed written response to this criterion [Exhibit E-2; see also, Exhibit H-16, at 2]. At this location, the City's Transportation System Plan (TSP) classifies the following abutting streets as follows:

Street Name	*Traffic*	*Transit*	*Bicycle*	*Pedestrian*	*Freight*	*Emergency Response*	*Street Design*
SE Salmon St	*Local Service*	*Local Service*	*Major City Bikeway*	*Local Service in a Ped. Dist.*	*Freight District*	*Minor Response*	*Local Street*
SE Water Ave	*Traffic Access St*	*Local Service*	*Major City Bikeway*	*Major City Walkway in a Ped. Dist.*	*Priority Truck Street*	*Major Response*	*Neighbor-hood Main Street*

SE Main St	*Local Service*	*Local Service*	*City Bikeway*	*Local Service in a Ped. Dist.*	*Freight District*	*Minor Response*	*Local Street*

See Exhibit E-2. As expressly determined by PBOT and as adopted by the Staff Report, PBOT found that the proposed Conditional Use is consistent with the surrounding street designations of the Transportation Element of the Comprehensive Plan and TSP classifications *Id.*; see also, Exhibit H-5, at 4.

Further, the Applicant's Traffic Impact Study ("TIS") [Exhibit A-10], contains a detailed discussion of how the proposed use is appropriate for the site's traffic street designations identified in Table 1 of the TIS [Exhibit A-10, at 57]. As identified above, the design classifications (SE Salmon Street and SE Main Street are Local Streets, and SE Water Avenue is a Neighborhood Main Street) are also suited for the proposed land use [*Id.*; see also, Exhibit A-12, at 5]. The intended land use of these designations is:

- SE Salmon Street and SE Main Street (Local Streets): Local Streets are multimodal and important for local circulation of trucks in commercial and industrial areas.

- SE Water Avenue (Neighborhood Main Street): These are segments of Neighborhood Corridors located within the Central City and areas of intensive commercial activity. They are intended to serve a mix of uses which are oriented toward the street.

In furtherance of these design classifications, applicant will improve the street frontages of the proposed venue to feature wider sidewalks corridors on SE Main Street and SE Salmon Street, consistent with their local street designations in a Pedestrian District and along SE Water Avenue, consistent with its Major City Walkway and Neighborhood Main Street designations. Such improvements will be reviewed through a Public Works Permit [Exhibit H-5, at 8].

Therefore, Council finds criterion A.1 is met.

2. If the proposed use will be located in an industrial zone, it will not have a significant adverse effect on truck and freight movement;

Findings: This standard is supported by substantial expert evidence in the record. As addressed in the applicant's TIS, the project will not have a significant adverse effect on truck and freight movement and will protect the important freight connection between the Central Eastside and nearby regional truck routes along Interstate 5 and OR 99E. Exhibit A-10, at 57. Adjacent and nearby streets will continue to fully accommodate truck movements (and all modes of transportation). The loading dock and staging area for the proposed venue will be located away from the SE Water Avenue Priority Truck Street to allow efficient passage for large vehicles along SE Water Avenue. Exhibit A-10, at 57; Exhibit A-10, Section 17 – Traffic Control Plan. Loading-related truck movements will ultimately be addressed pursuant to an angle loading permit or other permit approved by PBOT, and the TIS contains a traffic control plan demonstrating that movements using Water Avenue are performed efficiently and safely and that it is feasible for loading to occur without significant adverse effect on truck and freight movement. SE Main Street and SE Salmon Street are not used for truck and freight movement due to vehicular traffic terminating to the west of the site, and the lots along these street sections remaining vacant.

Further, PBOT reviewed the proposal, concurred with the TIS, and submitted the following response to criterion A.2:

> "The proposed use is located within the Central Eastside Industrial Sanctuary. The applicant's TIS [Exhibit A-10] provided an analysis of existing, projected no-build, and post-development multi-modal transportation patterns. Conclusions indicate that since all of the development is located west of SE Water Ave, with the abutting east-west streets of SE Salmon and SE Main terminate into the Eastbank Esplanade, the proposed development will not conflict with existing truck and freight movement throughout the district. This criterion is met."

See Exhibit E-2; Exhibit H-5, at 5; Exhibit H-16, at 2. Based on the above finding from PBOT and substantial expert evidence in the record, Council finds criterion A.2 is met.

3. Transportation system:

   a. The transportation system is capable of supporting the proposed use in addition to the existing uses in the area. Evaluation factors include safety, street capacity, level of service, connectivity, transit availability, availability of pedestrian and bicycle networks, access restrictions, neighborhood impacts, impacts on pedestrian, bicycle, and transit circulation. Evaluation factors may be balanced; a finding of failure in one or more factors may be acceptable if the failure is not a result of the proposed development, and any additional impacts on the system from the proposed development;

Findings: Council finds that this criterion requires considering a variety of factors but that the facts are balanced. The applicant's traffic engineer has evaluated each of the evaluation factors to determine that "with the recommended improvements, the transportation system will be capable of safely supporting the proposed venue, in addition to accommodating existing uses." Exhibit A-10, at 58-59. PBOT Traffic Engineers have also reviewed applicant's TIS (Exhibit A-10) and approved the methodologies, analyses, assumptions, findings, and conclusions therein, and confirmed that the evaluation factors under this standard have been addressed and satisfied. See Exhibit E-2. Council agrees with the findings in the Hearings Officer's decision, the Staff Report [Exhibit H-5, at 5-8], PBOT's memorandum [Exhibit H-16, at 2-5], which determined that the transportation system is capable of supporting the proposed use in addition to existing uses, and are expressly adopted and incorporated herein.

Council finds that the application satisfies this criterion based on substantial expert evidence in the record. Council addresses each evaluation factor and responds to oppositional testimony raised during the course of the proceedings, as follows:

- Safety: For vehicle safety, the applicant's traffic engineer utilized Oregon Department of Transportation's (ODOT) Crash Data System over a five-year period from January 2016 to December 2020. Exhibit A-10. There were 66 crashes recorded at the study intersections over the five-year period (see Table 4), with the most crashes occurring at the SE Stark St/SE Grand Ave and SE Stark St/SE MLK Jr Blvd intersections. Exhibit A-10, at 19-20. Seven involved people walking or biking, including one at the SE Water Ave/SE Salmon St intersection. Exhibit A-10, at 8. The most common collision types at the study intersections were angle, turning and rear-end crashes, many of which show "no yield" or "disregarded traffic signal" as the cited cause. Exhibit A-10, at 8. In addition, the Union Pacific study rail crossings along the segment between SE Stark Street and SE Clay Street also had three reported incidents in the past five years, two in 2020 and one in 2022, two at the SE Salmon Street and one at the SE Clay Street crossings (see Table 5). Exhibit A-10, at 9-10. Each of these incidents included a train striking a pedestrian, with two resulting in a fatality and one resulting in an injury.

When an intersection's crash rate (crashes per million entering vehicles) is greater than the critical crash rate (an intersection's crash history compared to similar intersections, adjusting for volume), it's an indication that a design deficiency may exist and further study is warranted. As shown in Table 6, one of the identified intersections is located at the intersection of SE Water Ave/SE Salmon St – where the proposed use is located. Exhibit A-10, at 11. This is a 4-leg intersection with stop control of the side street approaches. Of the six recorded crashes over the 5-year period, four involved people running the stop sign (one being a bike running the stop sign), and two involved drivers running into a stopped vehicle (one being a parked car). Exhibit A-10, at 10-11. Of the four collisions where a driver or bike ran the stop sign, the direction of travel was split between the east and west approaches of SE Salmon Street and included either an inattentive driver "failing to yield" or "passing the stop sign" as the cause, rather than an intersection design flaw. Exhibit A-10, at 10-11. As further explained in DKS's Technical Memorandum, the proposed venue will provide frontage improvements adjacent to these intersections which can improve driver awareness when approaching the SE Water Avenue intersection along SE Salmon Street, but overall, these collisions were caused by inattentive drivers and the proposed venue is not anticipated to exacerbate it. Exhibit H-15.

Moreover, the predicted accident probability based on current safety protection for each at-grade study crossing is summarized in the table below for the 2025 No-Build and 2025 Build scenarios. As shown in the table, the accident probability analysis found the study crossings to be well below 0.50 accidents per year with existing crossing safety protection, and the increased traffic in the 2025 Build scenario would not be expected to result in any material change to the frequency of accidents compared to the 2025 No-build scenario. See Exhibit H-52, at 4-6.

Table 1: At-Grade Study Rail Crossing Safety Assessment

STUDY RAIL CROSSING*	PREDICTED ACCIDENTS (ACCIDENTS/YEAR)		
	FUTURE NO BUILD 2025	FUTURE BUILD 2025	CHANGE (2025 BUILD- 2025 NO BUILD)
SE STARK STREET (754542S)	0.006	0.007	0.001
SE YAMHILL STREET (754550J)	0.004	0.004	0.000
SE SALMON STREET (754552X)	0.207	0.208	0.001
SE MAIN ST (754553E)	0.003	0.004	0.001
SE CLAY STREET (754559V)	0.107	0.107	0.000

Furthermore, the proposal is designed to ensure safe conditions for all modes and PBOT standards are designed to provide safe conditions for all modes, especially pedestrian and cyclists. The applicant will be required to dedicate property along all three frontages and reconstruct the abutting pedestrian corridor to City standards. Exhibit H-16, at 3. The TIS also recommended curb extensions at both the SE Salmon and SE Main Street intersections. The curb extension into SE Main Street (see Figure 10 of Exhibit A-10) would shift the travelway slightly south for drivers heading westbound away from SE Water Avenue and would provide space for a tour bus to be staged on-street during

events to the east of the loading dock for the proposed venue. Exhibit A-10, at 36-37. The curb extension into SE Salmon is adjacent to the proposed bike parking on SE Salmon Street and is recommended to support the proposed bike parking. *Id.*, at 37 and 39. As noted by PBOT, there is also a planned two-way cycle track along the site's SE Water frontage in the future. Exhibit H-16, at 3. Additional safety improvements such as crosswalk stripping, signage, lighting, etc. will be determined during the review of the Public Works permitting process. Exhibit H-16, at 3.

Some opponents including the appellant assert that the site may not be adequately lit and that should be accounted under the "safety" factor. Simply put, there is sufficient street lighting in the area surrounding the site and along the streets which provide pedestrian access to the site, as demonstrated by the photographs of the area taken on 7/23/24 at approximately 10pm. See Exhibits H-49, H-50, H-51. Further, development of the proposed venue will result in new street lighting improvements to city standards immediately adjacent to the site, further ensuring an adequately lit and safe experience for venue patrons.

On the issue of traffic safety, the appellant submitted written testimony (Exhibit H-35 and appellant's memorandum to Council dated September 18, 2024) and testified at the hearing before Council alleging traffic impact-related arguments that the proposed use would generate: conflicts with trains as it relates to pedestrian access and rail crossings; increased darkness and poor visibility for pedestrians at late hours; increased alcohol use; and increased accidents. The appellant also questioned the traffic evidence in the record. Council finds that these arguments should be denied for the reasons below.

First, as explained in applicant's Exhibit H-52, the standard protective devices at rail crossings in Oregon are installed and maintained by the railroad (not the applicant or the City) per OAR 741-110-0020 to 0090 and 741-115-0010 to 0080. Exhibit H-52, at 4. The crossing characteristics near the proposed venue are documented in the TIS at SE Stark Street, SE Yamhill Street, SE Salmon Street, SE Main Street and SE Clay Street (see page 6 of the TIS), and include advance warning pavement markings and signage, and post mounted flashing light signals, automatic gates and supplemental signage indicating the number of tracks at the crossing, with the crossing at SE Clay Street also including flashing-light signals on cantilevered supports. Exhibit H-52, at 4. These grade crossings also include nearby illumination to provide light during hours of darkness. Exhibit H-52, at 4. Exhibits H-49, H-50, H-51 show that visibility at night in the surrounding area and at the site are not impaired and include nearby illumination. Exhibit H-52 (at. p. 2) further demonstrates that rail crossings do not pose operational safety concerns.

Second, regarding alcohol consumption, the approval standards do not require projecting and accounting for impairment of individual users of the transportation system. And while Council finds that the proposed operator is not relevant to the criteria, it is worth noting that evidence in the record demonstrates the proposed venue operator is committed to responsible alcohol service as evident in the record, and has been a member of the TEAM Coalition (Techniques for Effective Alcohol Management), which is a non-profit organization that trains and certifies concessions, operations, and security staff on safe and responsible alcohol service. See Exhibit H-52, at 12. The proposed venue will also comply with State law, which maintains its own robust alcohol regulations. *Id.*

Third, regarding alleged traffic safety concerns and increased accidents, such contentions are unfounded for the reasons already addressed above. Specifically, as noted in Table 1 above, the proposed use is not expected to result in any material change to the frequency of accidents. To the extent that the project opponent alleges that the TIS failed to consider employee trip generation, that contention is untrue. As expressly noted in Applicant's Exhibit H-52 (at p. 6), employee trip generation information was considered in the analyses and summarized in the TIS (Exhibit A-10, at 21-24)

Further, traffic-related evidence (Exhibit H-41) was submitted in the record on behalf of appellant in response to the applicant's TIS (Exhibit A-10). Council finds these comments inconsistent with extensive analysis provided in the TIS and additional evidence in the record. The traffic comments simply agree with appellant without providing any empirical traffic data and analysis and further argues that the applicant has not provided adequate traffic analysis to fully determine impacts and mitigation. However, as identified above and as reflected in the record, there is substantial evidence in the record demonstrating the methodologies, analyses, assumptions, findings, and conclusions with regard to traffic safety, intersection capacity, Level of Service (LOS), connectivity between travel modes, trip generation including employee trip generation, multi-modal safety, potential impacts, mitigation measures, and proposed public improvements. See Exhibit A-10; Exhibit H-15; Exhibit H-16; see also, Exhibit H-52, at 4-6. Thus, Council rejects allegations including safety-related contentions in Exhibit H-41 and evidentiary-related contentions in the appellant's memorandum to Council dated September 18, 2024.

Finally, the appellant contended that no venue can be safely located in proximity to a rail line. Exhibit H-35. However, there is evidence in the record demonstrating many venues across the county are located in proximity to a rail line. See Exhibit H-52, at 7-11. Specific to the subject site, the traffic engineer analyzed the increase in pedestrian crossings for safety impacts and found that the proposed use would not result in any material change, as discussed above. See Exhibit H-52, at 4-6.

Based on substantial expert evidence in the record, Council finds that this evaluation factor is satisfied.

- Street Capacity/Level of Service (LOS): To determine the pre-build and post-build intersection capacity and LOS, turning movement data was obtained for the study intersections during the weekday and weekend pre-event period (6 p.m. to 8 p.m.) and post-event period (10:00 p.m. to 12:00 a.m.). Exhibit A-10, 12. Daily motor vehicle count data was also collected adjacent to the proposed venue along SE Water Avenue, south of SE Salmon Street and north of SE Main Street. Exhibit A-10, 12. The count data indicates that approximately 4,900 vehicles pass the proposed venue along SE Water Avenue during an average weekday. Exhibit A-10, 12. Of these vehicles, 1,300 travel northbound and 3,600 travel southbound. The highest number of trips along SE Water Avenue occurs from 5:00 – 6:00 p.m., with 488 vehicles passing the proposed venue (157 northbound and 331 southbound). Exhibit A-10, 12. During the pre-event and post-event peak hours, 165 and 35 vehicles pass the proposed venue along SE Water Avenue, respectively. Exhibit A-10, 12. For City study intersections along SE Water Avenue not designated on the Metro Regional Transportation Plan Arterial and Throughway Network, the City of Portland standards require a LOS "D" or better to be maintained for signalized intersections and a LOS "E" or

better for intersections with stop control. Exhibit A-10, 12-13. As shown in Table 7 of the TIS, all study intersections meet the current mobility targets during the weekday and weekend pre-event and post event peak hours. Exhibit A-10, 14-15. All intersections along SE Water Avenue operate with a LOS B or better, while the signalized intersections at SE Stark Street/SE Grand Avenue and SE Stark Street/SE Martin Luther King Jr Boulevard operate with a LOS C or better, well below the current mobility targets. Exhibit A-10, 14.

For post-build expectations, Table 17 of the TIS shows the future 2025 intersection operations at study intersections, with the proposed venue. Exhibit A-10, 47-48. As shown, all study intersections are expected to continue to meet mobility targets despite the added traffic growth from the proposed venue through 2025, despite an expected increase up to 14 percent during the pre-event peak hour and up to 41 percent during the post-event peak hour. Exhibit A-10, 47. All intersections along SE Water Avenue are expected operate with a LOS C or better, while the signalized intersections at SE Stark Street/SE Grand Avenue and SE Stark Street/SE Martin Luther King Jr Boulevard also operate with a LOS C or better. Exhibit A-10, 47. Therefore, the system evaluation found no street capacity or level of service impacts with the proposed venue, as shown in Table 17, 18 and 19. Exhibit A-10, at 58.

Council finds that this evaluation factor is satisfied.

- Pedestrian, Cycling, and Transit Availability: The proposed venue is very accessible to pedestrians and bicyclists and is well-served by a network of continuous sidewalks and bike facilities on the surrounding streets between nearby existing private vehicle parking, bike parking, ride hailing or transit stops. Exhibit A-10, at 11. The proposed venue is also adjacent to existing bikeways along the Eastbank Esplanade, SE Water Avenue and SE Salmon Street. Exhibit A-10, at 7. Current transit service near the proposed venue is primarily accessed via stops located on SE Grand Avenue and SE Martin Luther King Jr Boulevard between SE Salmon Street and SE Taylor Street, on the SE Madison Street and SE Hawthorne Boulevard viaducts (accessed via stairs from SE Water Avenue), on the SE Morrison Street and SE Belmont Street viaducts (accessed via stairs from SE Water Avenue), along SW 1st Avenue in downtown Portland across the Morrison Bridge, and near SE Tilikum Way. Exhibit A-10, at 7-8, 58. Event attendees and employees who utilize transit for travel to and from the venue would primarily utilize SE Water Avenue, SE Salmon Street and the Eastbank Esplanade to access transit services before and after events. Exhibit A-10, at 58. Current schedules indicate that the TriMet Routes 6, 14 and 15 and MAX light-rail service near the proposed venue extends beyond the conclusion of a typical event (i.e., expected to be 11:00 p.m. or later for most events). Exhibit A-10, at 58.

  Council finds that this evaluation factor is satisfied.

- Connectivity: The subject site located at the intersection of three ROWs meeting the City's Street spacing standards noted in 17.88.040. Therefore, additional connections are not required. Council finds that this evaluation factor is satisfied.

- Access Restrictions: Of the three frontages, SE Main Street is the lowest classified street, therefore the appropriate frontage to which provide vehicular access. As discussed further below, the applicant proposes to provide loading

from SE Main Street, reviewed through a permit as determined by PBOT Council finds that this evaluation factor is satisfied.

- On-Street Parking Impacts: Parking surveys were conducted between 6:00 p.m. and 11:00 p.m. on a weekday (Thursday, July 27, 2023) and a weekend (Saturday, August 5, 2023) within a 0.25 mile or about a 10-minute walk of the proposed venue, which is generally considered a comfortable walking distance. Exhibit A-10, at 15. This roughly includes the blocks bounded by the Willamette River to the west, SE Morrison Street to the north, SE Grand Avenue to the east and SE Clay Street to the south. Exhibit A-10, at 15. On-street parking in the surveyed area is either permit parking (i.e., Zone G or Zone N permit) or available via a 2-hour time limit for non-permit holders and enforced on weekdays only from 7 a.m. to 6 p.m. in non-metered spots and 8 a.m. to 6 p.m. in metered spots. Exhibit A-10, at 15. As shown in Table 14 of the TIS, about 1,318 parking spots were identified within the surveyed area, including 1,084 on-street parking stalls and 234 parking spots in public off-street lots (see Figure 16 and Figure 17). Exhibit A-10, at 15. A maximum estimated parking occupancy for the entire surveyed area of 32 percent was observed during the weekday and 17 percent was observed during the weekend, both occurring in the 5:00 p.m. and 7:00 p.m. survey period. Exhibit A-10, at 15.

  Table 15 of the TIS shows that a sold-out concert is estimated to generate demand for 915 parking spaces during both a weekday and weekend event, with attendee and employee arrivals occurring between 6:00 p.m. and 9:00 p.m. and most assumed to use parking locations within 0.25 miles of the proposed venue (i.e., 763 of the 915 parking spaces). Exhibit A-10, at 42-43. The total occupied parking spaces with the proposed venue is estimated to be highest between 8:00 p.m. and 9:00 p.m. during both a weekday and weekend event when the attendee and employee parking demand is at its highest (i.e., demand for 763 spaces within 0.25 miles of the proposed venue). Exhibit A-10, at 42-43. The parking occupancy rate during this period is estimated to reach 82 percent during a weekday event (i.e., 1,074 parking spaces) and 71 percent during a weekend event (i.e., 930 parking spaces) for the 1,318 parking spaces within 0.25 miles of the proposed venue. The estimated parking occupancy rates between 6:00 and 8:00 p.m. are under 80 percent for a weekday event and under 70 percent for a weekend event. Exhibit A-10, at 42-43.

  Table 16 of the TIS shows that a weekday special event is estimated to generate demand for 131 parking spaces, with attendee and employee arrivals occurring between 12:00 p.m. and 3:00 p.m. and all are assumed to use parking locations within 0.25 miles of the proposed venue. Exhibit A-10, at 44. The total occupied parking spaces with the proposed venue is estimated to be highest between 1:00 p.m. and 2:00 p.m., when 1,135 parking spaces are utilized. Exhibit A-10, at 44. This represents an 86 percent occupancy rate for the 1,318 parking spaces within 0.25 miles of the proposed venue. Exhibit A-10, at 44. The estimated parking occupancy rates between 12:00 and 1:00 p.m. and are 2:00 and 3:00 p.m. are at or below 84 percent. Exhibit A-10, at 44. PBOT regularly evaluates the on-street parking demand and has the ability to adjust controlling factors in accordance with existing practices and policies. See Exhibit H-16, at 4.

  Based on the above, Council finds that this evaluation factor is met.

- Neighborhood Impacts: The purpose of the IG zone is to protect the Industrial Sanctuary area designated by the Comprehensive Plan. The Industrial Sanctuary zones identify areas where industrial uses may locate, while other

uses – such as the current proposal – are restricted to prevent potential conflicts and to preserve land for industry. Here, the proposed venue is located on the edge of the Central Eastside subdistrict, and the majority of proposed operations would occur when many industrial and allowed uses are closed, avoiding the impact to the industrial operations in the district. Council finds that this evaluation factor is satisfied.

Accordingly, based on substantial and unrefuted expert evidence in the record, Council finds criterion A.3.a is met with conditions recommended by PBOT.

b. Measures proportional to the impacts of the proposed use are proposed to mitigate on- and off-site transportation impacts. Measures may include transportation improvements to on-site circulation, public street dedication and improvement, private street improvements, intersection improvements, signal or other traffic management improvements, additional transportation and parking demand management actions, street crossing improvements, improvements to the local pedestrian and bicycle networks, and transit improvements.

c. Transportation improvements adjacent to the development and in the vicinity needed to support the development are available or will be made available when the development is complete or, if the development is phased, will be available as each phase of the development is completed.

Findings: The applicant's TIS found no off-site transportation impacts resulting from the proposed venue that will not be mitigated, based on the analysis comparison of no-build versus build. See Exhibit A-10, at 59. As found in the TIS, the only impacts of the proposed use are on-site transportation impacts resulting from new site generated trips, which will be mitigated with proposed improvements. Exhibit A-10, at 59. Transportation impacts resulting from new site generated trips will be mitigated with improved street frontages to feature wider sidewalks, to include 12-foot sidewalk corridors on SE Main Street and SE Salmon Street, consistent with their local street designations in a Pedestrian District and a 15-foot sidewalk corridor along SE Water Avenue, consistent with its Major City Walkway and Neighborhood Main Street designations. *Id.*, at 58.

In addition, applicant submitted a transportation and parking demand management plan (TDM) (Exhibit A-10, Section 1) for the proposed venue to reduce the impact of events on the transportation system and provide employees and attendees with information and incentives to use transportation methods other than single occupancy vehicles. The plan provides strategies to increase the transit, walking, and biking travel options, along with traffic management techniques to ensure that people who travel via motor vehicle effectively navigate to their parking, drop-off, or pick-up location with fewer delays than what would occur under an unmanaged setting. *Id.* PBOT Parking Control and Traffic Engineering will also evaluate ride hailing locations as deemed appropriate to serve the use and reserve the right to modify and relocate such service locations as the project comes online. Exhibit E-2.

Further, as described in applicant's Technical Memorandum, given the planned future two-way cycle track on the west side of SE Water Avenue adjacent to the proposed venue, no curb extensions are required into SE Water Avenue. Exhibit H-15, at 2. To support this future two-way cycle track improvement, the existing curb extension into SE Water Avenue at the northwest corner of the SE Main Street intersection is proposed to be removed as part of the recommended curb extension improvement noted above into SE Main Street at the same corner. *Id.* These proposed improvements are also recommended to include the associated crosswalk striping and signage as required. The final design of the curb

extension and overall crossing/street layout will be determined during the public works permitting process. *Id.*

The applicant also identified several Capital Improvement Projects (CIP) in and around the area that will also help mitigate anticipated impacts and strengthen the City's mode-split goals. See Exhibit A-10, at 55-56 and 59. Some project opponents argued the insufficiency of such CIP or the resulting transportation system. However, substantially more trips to the Oregon Museum of Science and Industry (OMSI) are adequately accommodated on a daily basis than that would be created by the venue [Exhibit H-52, at 2]. OMSI is similarly located west of the rail line in the Central Eastside. As reflected in Exhibit H-52 in the record, throughout OMSI's history at 1945 SE Water Avenue, it has not had an accident with a visitor and the train, and OMSI does not anticipate operational impacts from any rail operations. Exhibit H-52, at 2.

Finally, the Staff Report and PBOT evaluated and analyzed the above measures in detail to find that the project will be able to sufficiently mitigate transportation-related impacts immediately surrounding the site and within the district. Exhibit H-5, 8-9; Exhibit E-2; Exhibit H-16, at 2. Council agrees with those findings and conclusions.

Accordingly, with the proposed measures, Councils finds that criteria A.3.b-c are met.

4. Public services for water supply, police and fire protection are capable of serving the proposed use, and proposed sanitary waste disposal and stormwater disposal systems are acceptable to the Bureau of Environmental Services.

Findings: The Water Bureau and the Fire Bureau reviewed the proposal and responded with no objections (Exhibits E-3 and E-4, respectively), indicating that adequate water supply and fire protection would be available. See also, Exhibit H-5, at 10. The Police Bureau reviewed the proposal and responded that police would be able to adequately serve the proposed use (Exhibit E-5). *Id.* The Bureau of Environmental Services reviewed the application and found the proposed sanitary sewer connection and stormwater management plan are acceptable (Exhibit E-1). *Id.*

During the proceedings before the Hearings Officer, the appellant submitted testimony (Exhibit H-35, at 9-10) contending that there is nothing in the record indicating that the proposed venue had been reviewed by the City's Fire Bureau. However, as noted above, the Portland Fire & Rescue ("PF&R") reviewed the proposal and responded with no objections to the application. Further PF&R analysis will occur during the building permit process.

For these reasons, Council finds criterion A.4 is met.

B. Appearance. The appearance of the facility is consistent with the intent of the zone in which it is to be located and with the character of the surrounding uses and development;

Findings: Zoning Code Section 33.140.030.C states the intent of the General Industrial zones, including the IG1 zone that applies to the subject site:

> *The General Industrial zones are two of the three zones that implement the Industrial Sanctuary map designation of the Comprehensive Plan. The zones provide areas where most industrial uses may locate, while other uses are restricted to prevent potential conflicts and to preserve land for industry. The development standards for each zone are intended to allow new development which is similar in character to existing development. The intent is to promote viable and attractive industrial areas.*

1. *General Industrial 1. IG1 areas generally have smaller lots and a grid block pattern. The area is mostly developed, with sites having high building coverages and buildings which are usually close to the street. IG1 areas tend to be the City's older industrial areas.*

2. *General Industrial 2. IG2 areas generally have larger lots and an irregular or large block pattern. The area is less developed, with sites having medium and low building coverages and buildings which are usually set back from the street.*

The site is at the western edge of an older industrial area, and the I-5 freeway and the Willamette River are just west of the site. Exhibit H-37, at 11. The lots to the north and south of the proposed building are undeveloped, and no development is currently proposed for these lots. Exhibit A-7, at 2; see also, Exhibit H-45, at 1-2. Properties east of the site, on the opposite side of SE Water Street, are developed with one- and two-story industrial and commercial buildings. Exhibit H-45, at 1-2. A larger, four-story building (the Eastbank Commerce Center) is one block north of the proposed concert venue.

As intended for the IG1 zone, this area has a grid block pattern and relatively small lots for an industrial area. The concert venue lot would be about 32,000 square feet after required street dedications. Since this proposal is to construct a new building on a currently vacant lot, and since that building would be close to all three abutting streets, covering most of the lot area, Council finds the proposal is consistent with the intent of the IG1 zone to have "high building coverages and buildings which are usually close to the street."

The new building would have a four-story scale and a modern design with angled roof lines and minimal ornamentation other than rooftop plantings. See Exhibit C-4; see also, Exhibit H-36 – Planting Plan, at 38; see also, Exhibit H-36 - Roofing Plan, at 39. The applicant describes the design as similar to an "upscale warehouse" (Exhibit A-12, page 9), and Exhibits A-3 and Exhibit H-45 (Neighborhood Building, at p. 4) show how the exterior design, though modern, reflects existing buildings in the area. While multiple project opponents asserted allegations that the proposed venue does not satisfy this standard, Council agrees with the Staff Report's findings that the appearance of the proposed building would be both attractive and compatible with the industrial character of the area, consistent with the intent of the General Industrial zones to "promote viable and attractive industrial areas."

Finally, in Exhibit H-35 and at the hearing before City Council, the appellant and some testifiers argued that the proposed use is a "wrong use in the wrong place" and that the appearance and design of the proposed venue is inconsistent with the zone and surrounding area. That argument is not supported by evidence in the record. As noted above, the proposed use is consistent with the intent of the IG1 zone and surrounding area. Neighborhood industrial buildings are similar to the proposed venue as depicted in Exhibit H-45, at 4. Additionally, the approval criteria in 33.815.215 are specifically for Major Event Entertainment Uses, and PCC Chapter 33.140 Table 140-1 explicitly recognizes that these uses may be proposed as Conditional Uses in industrial zones which includes the IG1 zone. See PCC Chapter 33.140 (Employment and Industrial Zones) – Table 140-1. Therefore, Council rejects these contentions.

Accordingly, because Council finds that the appearance of the proposed facility is consistent with the intent of the IG1 zone and with the character of surrounding uses and development, Council finds criterion B is met.

C. Benefit. Public benefits of the proposed use outweigh any impacts that cannot be mitigated;

Findings: The concert venue would create a higher level of activity in the evenings to deter crime and support nearby bars and restaurants without interfering with industrial businesses that operate primarily in the daytime. In addition, the applicant would be required to install public improvements such as wider sidewalks and street trees around the development site. As explained in the Staff Report, such public infrastructure improvements surrounding the block will improve the safety and security of the pedestrian environment for people who live and work in the area. Exhibit A-12, at 9; see also, Exhibit H-16.

Additionally, as further reflected in the Economic Impacts Analysis, the proposed use provides extensive public benefits that positively contribute to the area. Exhibit H-36, at 4-37. As described in detail in the analysis, these benefits include: new employment, payroll, spending with local vendors on construction and operations, new tax revenue, and indirect and induced economic activity to the surrounding area. *Id*.

Further, Council finds that the only impact relevant to the land use review approval criteria are impacts to the surrounding neighborhood. Here, the impacts are the amount of trips the site generates, summarized in the TIS. Mitigations are summarized in the TIS and transportation and parking demand management (TDM) and include public frontage improvements and TDM methods. See Exhibit A-10, Section 1; see also, Exhibit H-54. As explained in the Staff Report, there are no identified negative impacts from the proposed use that cannot be mitigated. Exhibit H-5, at 11. As noted above, the venue would largely operate outside the hours of operation of most businesses in the industrial area, and as stated in the findings above for criterion A above, public services, including the transportation system, are adequate to accommodate the proposed use.

The appellant (Exhibit H-35) contended that there are no public benefits that flow to industrial uses and such use improperly develops an industrial lot as a non-industrial use. These contentions are misplaced. Without the proposal, the lot would remain vacant and unproductive as it has been since July 2007, and would continue to consist of unimproved roads. See Exhibit H-45, at 1-2; see also Exhibit H- 48. With the proposal however, as noted above, the proposed use provides extensive public benefits to the surrounding uses and area including public infrastructure improvements and benefits to local industry activity (e.g. employment, income, or business revenues). Exhibit H-36, at 4-37; see also, Exhibit H-16. A use like the proposed venue use is expected to revitalize the Central City by generating more activation points and increased foot traffic. See Exhibit H-47. The proposed venue is also not inconsistent with industrial uses. All employment and industrial zones in the City conditionally allow Major Event Entertainment uses (PCC Chapter 33.140 Table 140-1), and as explained above, the proposed use will operate outside of the hours of nearby businesses.

Finally, in response to this standard, some testifiers including the appellant posed concerns regarding the tenant/operator of the proposed venue (Live Nation) and alleged that the operator and its business practices would negatively impact the local music and entertainment industry by squeezing out local promoters and artists. See Exhibit H-35; see also, appellant's memorandum to Council dated September 18, 2024. Such interpretations by testifiers and the appellant appear to focus on the "benefit" standard, which states "Public benefits of the proposed use outweigh any impacts that cannot be mitigated." The thrust of these arguments is that Council should interpret the phrase "any impact" as broadly as possible to include considerations about future economic impacts on venues and the local music and entertainment industry. Council rejects these contentions because Council's review is limited to application of the Zoning Code, not speculative and generalized market impacts.

Specifically, such an overbroad interpretation is inconsistent with the purpose of the Major Event Entertainment conditional use standards, which is to ensure that the impacts of such uses "are not harmful to surrounding areas and that transportation services are or will be sufficient to serve the use." PCC 33.815.215. Consistent with this purpose statement, Council finds that the term "impacts" as used in PCC 33.815.215.C means impacts to the surrounding area and transportation services are land use impacts applying a geographically constrained analysis related to land use impacts such as noise, light, traffic, etc. In contrast, opponents interpret the criteria to regulate uncertain economic outcomes that would occur at an unknown time and place and are not directly caused by holding events at the proposed venue. Further, while the appellant cites to *Belluschi v. City of Portland*, 53 OR LUBA 455 (2007) as informative to the interpretation of this standard, it is not controlling for the reasons discussed above. Moreover, the use being proposed is a Major Event Entertainment use, which does not include consideration of the proposed operator (public, private, large, or small). PCC 33.920.230. Therefore, Council rejects these arguments because such contentions are unrelated to the approval criteria, and finds that substantial evidence in the record demonstrates that there are no impacts that cannot be mitigated.

Because there are no negative impacts identified that cannot be mitigated and which public benefits must outweigh, Council finds that criterion C is met based on substantial evidence in the record.

D. In the campus institutional zones. These approval criteria allow Major Event Entertainment facilities to be part of an institutional campus. They also ensure that the impacts of the facility on nearby areas are mitigated and that affected neighbors have an opportunity to comment on the proposals for mitigation. The approval criteria are:

1. The facility is to be established as part of a school or college. Such facilities are prohibited as part of a medical center campus;

2. The facility is limited to events that feature the athletic or performance skills of students, faculty or staff or which supplement the institution's programs;

3. In the IR zone the facility is listed in the mission statement as part of the institution's impact mitigation plan;

4. In the IR zone the mitigation activities completed to implement the impact mitigation plan are adequate to mitigate for the expected impact of the facility. The location chosen and mitigation measures used are consistent with the institution's approved impact mitigation plan; and

5. All approved limited uses and major event entertainment uses in aggregate occupy 30 percent or less of all campus net building area including portions of parking structures associated with these uses. If the institutional campus includes structured parking, 250 square feet of the structured parking will be associated with the major event entertainment facility for each parking space associated with the facility. Size exceptions are prohibited.

Findings: The campus institutional zones are listed in Zoning Code Section 33.150.020. Since this site is not in a campus institutional zone, criterion D does not apply.

Adjustment Review

33.805.040 Approval Criteria

Adjustment requests will be approved if the applicant has demonstrated that approval criteria A through F, below, have been met.

A. Granting the Adjustment will equally or better meet the purpose of the regulation to be modified; and

Findings: The applicant is requesting two Adjustments:

- To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c).

- To reduce the amount of ecoroof area required from 14,617 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 4,670 square feet (Zoning Code Section 33.510.243.B.1).

Consistency with the purpose of each requirement to be modified is discussed below.

Loading
Zoning Code Section 33.266.310.A states the purpose of the on-site loading space requirement:

> *A minimum number of loading spaces are required to ensure adequate areas for loading for larger uses and developments. These regulations ensure that the appearance of loading areas will be consistent with that of parking areas. The regulations ensure that access to and from loading facilities will not have a negative effect on the traffic safety or other transportation functions of the abutting right-of-way.* (emphasis added)

The applicant proposes to use the SE Main Street right-of-way adjacent to the site for truck loading when needed, and this Adjustment is necessary because the Zoning Code requires loading areas that are on-site rather than in the right-of-way. However, the proposal would still accommodate two large trucks or buses simultaneously, as required by Zoning Code Section 33.266.310.C.2.c, and the loading area would be as large as would be required by Zoning Code Section 33.266.310.D.1. Thus, the purpose of ensuring adequate areas for loading for larger uses and developments is equally or better met by the proposed Adjustment.

The appearance of the loading areas will be consistent with that of required parking areas. Here, there are no required on-site parking areas or associated landscaping and screening requirements that address the appearance of parking areas. Exhibit H-54. The proposed loading areas will be visually standard loading areas and indistinguishable from parking when trucks are not present. Exhibit H-54. As found in the Hearings Officer's decision and in the Staff Report, the street would not have the appearance of a loading area or parking area when not in use for truck loading, and using the public street for loading rather than creating a dedicated loading area on-site reduces visual impacts by reducing the amount of pavement area required for the proposal. The purpose of ensuring that "appearance of loading areas will be consistent with that of parking areas" is equally or better met by the proposed Adjustment.

The applicant has also provided a detailed analysis of loading-related truck movements and traffic control plans to ensure traffic safety and continuous transportation functionality while trucks are loading and accessing the loading area. The TIS includes a traffic control plan illustrating how vehicle, bike, and pedestrian travel will be maintained on SE Main Street during the time that trucks are loading. The final measures and improvements are subject to the public works and permitting process,

but the applicant has presented feasible plans that achieve the following traffic safety measures:

- SE Main Street remaining accessible to two-way vehicular and bicycle traffic at all times. Even with the largest trucks loading, no less than 21.6 feet of the street will remain usable for vehicles. 20 feet is the standard minimum width to accommodate two-way traffic.

- Full signage and certified flagger support for truck movements to access the loading area.

- Swinging gate that closes the sidewalk and landscape area, directing pedestrians to use the sidewalk on the other side of SE Main Street when trucks are present in the loading area.

Exhibit A-10, at 35-36. The applicant's traffic control plan demonstrates that it is feasible for the proposed loading to occur without negative effect on the traffic safety or function of the surrounding transportation system. Further, any impact to SE Water Ave is not attributable to the proposed Adjustment. Even if the loading area were on-site as would be consistent with the code, the same truck movements would be required to access the loading areas. Additionally, while not relied on to approve the Adjustment, as a practical matter, construction of the venue would result in improvements to adjacent rights-of-way resulting in substantial improvement for transportation functionality of the adjacent rights-of-way. The improvements are listed at Table 21 of the TIS and benefit all modes of transportation. Exhibit A-10, at 55-56. Currently, the abutting street improvements do not meet City standards and result in conflicts between modes. For example, Exhibit H-48, at pages 2 and 3, show a pick-up truck of a local services provider navigating the current illegal angle parking on SE Salmon and lack of sidewalk improvements resulting in pedestrians in the vehicular travelway.

Based on the applicant's traffic control plan, the Council finds that it is feasible for the proposed loading Adjustment to equally or better meet the purpose of ensuring that PCC 33.266.310.A is met. Imposition of Condition of Approval C, requiring permit approval from PBOT, ensures this standard will be met.

For these reasons, and with the condition of approval of the appropriate permit as determined by PBOT, Council finds the Adjustment request equally meets the purpose of the standard.

Ecoroof

Zoning Code Section 33.510.243.A states the purpose of the ecoroof requirement:

> *Ecoroofs provide multiple complementary benefits in urban areas, including stormwater management, reduction of air temperatures, mitigation of urban heat island impacts, air quality improvement, urban green spaces, and habitat for birds, plants and pollinators. The standards are intended to:*
> - *Maximize the coverage of ecoroofs;*
> - *Allow for the placement of structures and other items that need to be located on roofs; and*
> - *Support the architectural variability of rooftops in the Central City.* (emphasis added)

Without this Adjustment, ecoroofs would be required over all the roof area with slopes not steeper than 25% and not covered by mechanical equipment and elevator and

stairwell overruns (Zoning Code Section 33.510.243.B.1). The proposed building design incorporates large, sloping roof forms that are not steep enough to be exempt from this requirement (Exhibit A-8, page 7).

While 14,670 square feet of ecoroof is proposed over parts of the roof (Exhibit H-36, at 39), the applicant states the long spans of the sloped roof areas make supporting the additional ecoroof area impractical (Exhibit A-6, page 3). As found in the memorandum by DCI Engineers, compliance with the full ecoroof standard can add up to 1,243,000 pounds, which is 20% increase in mass to the structure. Exhibit H-36, at 3. With the structural challenges identified in the memorandum, reducing ecoroof weight on the subject structure as much as possible is recommended to reduce gravity and seismic loads to the structural framing, lateral system, and piles, given the low quality soils and depth of fill. *Id.*

As such, with more ecoroof weight added to the building structure itself, the additional tons in steel and concrete would significantly increase CO2 emissions. As evident in the record, with the proposed adjustment, approximately 222 tons of CO2 emissions generated from additional steel is avoided and 289 tons of CO2 emissions generated from additional concrete is avoided. See Exhibit H-47, at 64-65. That amount of avoided emissions is equivalent to driving a typical passenger vehicle for about 1,130,400 miles, an annual electrical use of approximately 90 average American homes, and burning around 1,057 barrels of oil. Exhibit H-47, at 66. Such CO2 emissions offset many of the environmental benefits of compliance with the full ecoroof standard, and the air quality purpose of the standard is particularly better met by avoiding such emissions and providing 43% of the required ecoroof.

Council agrees with the Hearings Officer's decision and the Staff Report finding that the proposed building design illustrated in Exhibit C-4 would be unique in the area, supporting architectural variability as noted in the purpose statement above.

Council also finds the proposal creates meaningful, complementary benefits that are intended to be provided by ecoroofs in the purpose statement above. The applicant proposes the following:

- 1,500-square-foot stormwater planter on the south side of the building that exceeds the stormwater management requirements for ecoroof area (Exhibit H-36, Floor Plan – Roof; Exhibit H-36, Planting Plan);
- Stainless steel cables would allow plants to climb toward the roof (Exhibit C-4); and
- Planting of new street trees adjacent to the site (Exhibits C-1 and E-8).

With these features, the site would be much greener than it is currently and would appear greener than typical for sites in the industrial area. While some of the new greenery would not qualify as ecoroof area under Zoning Code Section 33.510.243.B.2, all the new plants and trees would reduce stormwater runoff, improve air quality, mitigate heat island impacts, and provide habitat for birds and insects. The stormwater management requirements for the site would be fully met (Exhibit E-1), and the landscaping plan for the ecoroofs and the other planters includes several plant varieties known to attract pollinators (Exhibit A-8, pages 14-15). The applicant states the planters would utilize a geocell grid to prevent soil erosion, and that plantings would be denser than typical (Exhibit A-12, page 16). The applicant also submitted an operations

and maintenance plan that would promote the long-term success of the planters (Exhibit A-11).

Furthermore, the roof will consist of white Thermoplastic Polyolefin (TPO) roofing material for heat island reduction. See Exhibit H-36, at 2. Specifically, un-planted roof areas would be white TPO roof material. As evident by applicant's Exhibit 36, such roofing materials have highly reflective properties that effectively reflect solar radiation to reduce heat island impacts. *Id*. In effect, the proposed adjustment would meet the purpose of the eco-roof standards by reducing heat islands and air temperatures.

Based on the above, Council finds that the proposed Adjustment better meets the following ecoroof purposes:

- Complimentary benefits to urban areas, stormwater management, air quality improvements, and urban green spaces;
- Allowing for the placement of structures and other items that need to be located on roofs; and
- Support the architectural variability of rooftops in the Central City.

For all these reasons, Council finds the Adjustment request equally meets the purpose of the standard.

While not relied on to determine compliance with this adjustment standard, Council finds that as a practical matter, without these green features, the lot would continue to be a vacant, un-vegetated combination of paving and gravel (Exhibit H-45, at 1; Exhibit H-48).

Summary
With the condition of approval for PBOT permit approval for the loading area, Council finds each Adjustment request equally meets the purpose of the requirement to be modified. With the condition of approval, Council finds criterion A is met.

B. If in a residential, CI1, or IR zone, the proposal will not significantly detract from the livability or appearance of the residential area, or if in an OS, C, E, I, or CI2 zone, the proposal will be consistent with the classifications of the adjacent streets and the desired character of the area; and

Findings: Since the site is in an industrial (I) zone, the Adjustments must be consistent with the classifications of adjacent streets and the desired character of the area.

Street classifications
The Adjustment to the loading requirement would allow SE Main Street, which is classified as a Freight District Street, to be used for truck loading for this development. PBOT is supportive of this request. Exhibit E-2; see also, Exhibit H-16, at 5-6. PBOT noted that truck loading has been traditionally accommodated in the right-of-way in this area, and that with continuous compliance with a PBOT-approved Angle Loading Permit, negative impacts on streets adjacent to the site are not expected (Exhibit E-2).

The Adjustment to the ecoroof requirement affects only the interior of the site and would have no impact on travel demand or the function of adjacent streets.

With the condition of approval for PBOT permit approval for the loading area, Council finds the proposal is consistent with the adjacent street classifications.

Desired character of area
"Desired character" is defined in Zoning Code Chapter 33.910. Pursuant to this definition, the desired character for this site is determined by:

- the character statement for the IG1 zone
- the purpose statement for the Central City Plan District
- the Buckman Neighborhood Plan
- the Central City 2035 Plan

Council finds that "consistency" requires an analysis of whether the proposed Adjustment is on balance consistent with the pertinent character-related provisions of these standards.

IG1 zone
The character statement for the IG1 zone is in Zoning Code Section 33.140.030.C:

> *The General Industrial zones are two of the three zones that implement the Industrial Sanctuary map designation of the Comprehensive Plan. The zones provide areas where most industrial uses may locate, while other uses are restricted to prevent potential conflicts and to preserve land for industry. The development standards for each zone are intended to allow new development which is similar in character to existing development. The intent is to promote viable and attractive industrial areas.*
>
> 1. *General Industrial 1. IG1 areas generally have smaller lots and a grid block pattern. The area is mostly developed, with sites having high building coverages and buildings which are usually close to the street. IG1 areas tend to be the City's older industrial areas.*
>
> 2. *General Industrial 2. IG2 areas generally have larger lots and an irregular or large block pattern. The area is less developed, with sites having medium and low building coverages and buildings which are usually set back from the street.*

The new building would cover most of the lot and would be close to each of the abutting streets, and as discussed in the Conditional Use Review findings under PCC 33.815.215.A, the quality building design would be compatible with nearby development and contribute to a more attractive industrial area. Council finds the proposal is therefore consistent with the character intended for the IG1 zone, and that neither of the Adjustment requests would detract from this character.

Central City Plan District
The purpose statement for the Central City Plan District is in Zoning Code Section 33.510.010:

> *The Central City plan district implements the Central City 2035 Plan. The regulations address the unique role the Central City plays as the region's premier center for jobs, health and human services, tourism, entertainment and urban living. The regulations encourage a high-density urban area with a broad mix of commercial, residential, industrial and institutional uses, and foster transit-supportive development, pedestrian and bicycle-friendly streets, a vibrant public realm and a healthy urban river.*

A new concert venue for 3,500 spectators at this location would broaden the use mix in the Central Eastside and reinforce the Central City's role as the premiere location in the region for entertainment and tourism. The location is easily accessible by multiple transit lines, and pedestrians and cyclists can easily access the site from the nearby Eastside Esplanade as well as from the neighborhood street grid. Neither of the Adjustment requests would detract from the purpose of the Central City Plan District.

Buckman Neighborhood Plan
Council finds the following objectives from the Buckman Neighborhood Plan to be relevant:

Objective 1.6. Support planning and design of new developments that enhance neighborhood livability.

Objective 1.7. Promote the development of a clear identity for commercial nodes on Burnside, Belmont/Morrison, Hawthorne and the Central Eastside.

Objective 5.1. Control neighborhood traffic and parking to ensure safety and livability for neighborhood residents.

Objective 5.2. Encourage alternatives to automobile use.

Objective 5.10. Discourage trucks from blocking the streets when loading and unloading, except in the designated truck zone.

Objective 6.16. Encourage visual, literary, and performing arts to thrive in Buckman.

Objective 7.2. Encourage pedestrian-oriented commercial development.

As found in the Staff Report and in the Hearings Officer's decision, the proposal would create a new destination and amenity in the Buckman Neighborhood, support the performing arts, and contribute to a higher profile for the Central Eastside. Since the concert venue would be several blocks from residential areas, impacts on neighborhood livability would be minimal.

The development would have a pedestrian-oriented design with the building facades close to the street lot lines, improved public sidewalks, and no on-site motor vehicle parking. PBOT found that street parking in the vicinity would be adequate to support the development, and PBOT also recommended a condition of approval to require compliance with a transportation demand management (TDM) plan to limit single-occupancy vehicle trips associated with the proposed use. Exhibit E-2; see also, Exhibit H-16.

The Adjustment to the loading requirement would allow trucks to partially, but not fully, block SE Main Street when loading or unloading, but only within a designated, PBOT-approved truck loading area. As recommended by PBOT, applicant will obtain an approval of and comply with an appropriate permit as determined by PBOT to ensure truck loading does not significantly impact the functions of the public right of way in SE Main Street. Exhibit E-2; see also, Exhibit H-16.

Project opponents argued that the Objective 5.10 cannot be met. However, the loading proposal is consistent with Objective 5.10 because loading in the street is limited to the portion of SE Main Street within the proposed loading area. In short, the loading area is the designated truck zone.

For these reasons, and with the conditions of approval recommended by PBOT, Council finds the proposal is consistent with the Buckman Neighborhood Plan and neither of the Adjustment requests would detract from the objectives of the Buckman Neighborhood Plan.

Central City 2035 Plan
Council finds the following statements from the Central City 2035 Plan to be relevant:

Goal 1.A. Portland's Central City is the preeminent regional center for commerce and employment, arts and culture, entertainment, tourism, education and government.

Policy 1.1. Regional image. Strengthen the roles of the Central City and Willamette River in enhancing a positive image for the city, region and state.

Policy 1.4. Tourism, retail and entertainment. Expand upon activities in the Central City that support tourism and complement economic success, vibrancy, and livability, with a special focus on retail, cultural events and institutions, public spaces, arts and entertainment, urban design, and transportation.

Policy 1.CE-1.a. Industrial center. Protect the Central Eastside as a centralized hub of industrial businesses and services that support the regional economy by serving other industrial districts and businesses located throughout the Portland metropolitan area.

Policy 3.16. Loading. Support the delivery of goods in the Central City. Pursue strategies that bring new ways of delivering goods to the Central City in a way that optimizes loading and freight access and makes efficient use of limited urban space.

Policy 5.6. Distinct and vibrant districts. Enhance the existing character and diversity of the Central City and its districts, strengthening existing places and fostering the creation of new urban places and experiences.

Central Eastside 2035 Vision. The Central Eastside is a large, multimodal and vibrant employment district where existing industrial and distribution businesses continue to thrive while the district's job base grows and diversifies to attract new and emerging industries.

The new investment on this site would broaden the use mix in the Central Eastside, reinforce the Central City's role as the region's premiere location for entertainment and tourism, and support a positive image of the city as a vibrant, healthy community. The venue will activate a site that has been vacant, and an area where restaurant and retail uses will benefit from the influx of venue patrons.

Since the site is at the edge of the industrial area, and since the concert venue would operate in the evenings, the proposal would not significantly impact neighboring industrial businesses, which operate primarily in the daytime.

The Adjustment to allow truck loading from the SE Main Street right-of-way is supported by PBOT (Exhibit E-2 and Exhibit H-16) and would make efficient use of urban space by avoiding the need for a separate truck loading area on-site.

For these reasons, Council finds the proposal is consistent with the Central City 2035 Plan and neither of the adjustment requests would detract from the goals and policies of the Central City 2035 Plan.

Summary
With the conditions of approval recommended by PBOT for the transportation demand management plan and the Angle Loading Permit, Council finds the proposal is consistent with the classifications of adjacent streets and with the desired character of the area. With the condition of approval, Council finds criterion B is met.

C. If more than one Adjustment is being requested, the cumulative effect of the Adjustments results in a project which is still consistent with the overall purpose of the zone; and

Findings: Zoning Code Section 33.140.030.C describes the purpose of the IG1 zone:

The General Industrial zones are two of the three zones that implement the Industrial Sanctuary map designation of the Comprehensive Plan. The zones provide areas where most industrial uses may locate, while other uses are restricted to prevent potential conflicts and to preserve land for industry. The development standards for each zone are intended to allow new development which is similar in character to existing development. The intent is to promote viable and attractive industrial areas.

1. *General Industrial 1. IG1 areas generally have smaller lots and a grid block pattern. The area is mostly developed, with sites having high building coverages and buildings which are usually close to the street. IG1 areas tend to be the City's older industrial areas.*

2. *General Industrial 2. IG2 areas generally have larger lots and an irregular or large block pattern. The area is less developed, with sites having medium and low building coverages and buildings which are usually set back from the street.*

As stated in the findings for criterion B and explained in the Staff Report and Hearings Officer's decision, the new building would cover most of the lot and would be close to each of the abutting streets, and the quality building design would contribute to a more attractive industrial area. In particular, the Adjustment for loading will allow the required number of loading spaces to be provided within the right-of-way, which is quite typical within the Central Eastside industrial area. Exhibit A-12, at 17; see also, Exhibit H-16. Further, with the site located in the Central Eastside, truck loading has historically been accommodated in the ROW with review from PBOT via a loading permit as determined by PBOT or equivalent. Exhibit H-16, at 5-6.

The ecoroof adjustment will allow for less ecoroof coverage than required, but the proposal includes several green design features, including partial ecoroofing combined with stormwater facilities to meet the purpose of the standard as noted above. See Exhibit H-36, at 2; Exhibit H-36 – Planting Plan, at 38; Exhibit H-36 – Eco-roof Area Plan, at 39. Neither of the proposed Adjustments will cause any increase in conflicts with the surrounding industrial uses. There are no such uses on SE Main, west of SE Water Ave. The condition to obtain a PBOT permit will allow PBOT to further mitigate any conflicts on SE Water Ave from loading-related truck movements. No such mitigation would be required for on-site loading areas. Thus, whether considered individually or cumulatively, the effects of the Adjustments do not detract from the proposal's consistency with the purpose of the IG1 industrial zone.

Council finds the proposal is therefore consistent with the purpose statement above. The effects of the two Adjustment requests are to allow a smaller area of the roof to be ecoroof and to allow the SE Main Street right-of-way to be used for truck loading when needed. Whether considered individually or cumulatively, these effects do not detract from the proposal's consistency with the purpose of the IG1 industrial zone. Thus, Council finds criterion C is met.

D. City-designated scenic resources and historic resources are preserved; and

Findings: City-designated scenic resources are identified on zoning maps with an "s," and historic resources are identified either with a dot or as being within the boundaries of a Historic or Conservation district. As there are no scenic resources or historic resources mapped on the subject site (Exhibit B), this criterion is not applicable.

E. Any impacts resulting from the Adjustment are mitigated to the extent practical; and

Findings: The Adjustment to waive the requirement for an on-site truck loading area would be mitigated by the truck loading area within the SE Main Street right-of-way. Though loading areas within the right-of-way do not count toward the Zoning Code requirement, the proposed loading area would be adjacent to the building's loading and staging room (Exhibit A-8, page 2) and would meet the dimensional requirements that would apply to an on-site loading area (Zoning Code Sections 33.266.310.C.2.c and 33.266.310.D.1).

More specifically, when trucks are loading, a portion of the SE Main Street right-of-way will be blocked. To mitigate this impact, the applicant proposes various measures to ensure that SE Main Street will be safe and functional for all modes of transportation. The TIS includes a traffic control plan illustrating how vehicle, bike, and pedestrian travel will be maintained during the time that trucks are loading. The final plans and improvements are subject to the public works and angle loading permitting process, but SE Main Street will:

- Be accessible to two-way vehicular traffic. Even with the largest trucks loading, no less than 21.6 feet of the street will remain usable for vehicles. 20 feet is the standard minimum width to accommodate two-way traffic.
- Reduce on-street parking on the southern side of SE Main.
- Provide full signage and certified flagger support for truck movements to approach the loading area.
- Provide a swinging gate that closes the sidewalk and landscape area, directing pedestrians to use the sidewalk on the other side of SE Main Street when trucks are present in the loading area.

Exhibit A-10, at 35-36. Impact of the loading Adjustment is further mitigated by the dead-end nature of motor vehicle traffic on the section of SE Main Street west of SE Water Avenue .

The Adjustment to the ecoroof requirement would be mitigated by on-site stormwater management plan that meets BES requirements (Exhibit E-1), and the landscaping plan for the ecoroofs and the other planters includes several plant varieties known to attract pollinators (Exhibit A-8, at 14-15). This Adjustment is also mitigated by the applicant's plan to use a white roof for heat island reduction. Exhibit H-36, at 2.

Accordingly, Council finds the impacts of both Adjustment requests are mitigated to the extent practical and that criterion E is therefore met.

F. If in an environmental zone, the proposal has as few significant detrimental environmental impacts on the resource and resource values as is practicable;

Findings: Environmental overlay zones are designated on zoning maps with either a "p" (Environmental Protection overlay zone) or a "c" (Environmental Conservation overlay zone).

As there are no environmental overlay zones mapped on the subject site (Exhibit B), this criterion is not applicable.

DEVELOPMENT STANDARDS

Unless specifically required in the approval criteria listed above, this proposal does not have to meet the development standards in order to be approved during this review process. The plans submitted for a building or zoning permit must demonstrate that all development standards of Title 33 can be met or have received an Adjustment or Modification via a land use review prior to the approval of a building or zoning permit.

CONCLUSIONS

Council hereby adopts and incorporates findings in the Hearings Officer's decision and in the Staff Report, as modified herein. Council finds the proposal for a new concert venue on this site would not negatively impact the industrial area, and that adequate public services are available to support the proposal.

Council also finds the proposed Adjustments to the loading and ecoroof requirements are consistent with the purpose of the standards to be modified, with the character of the area, and with the purpose of the IG1 zone. Impacts from the Adjustments would be mitigated to the extent practical.

With the conditions of approval listed below, Council finds that each of the applicable Conditional Use Review and Adjustment Review approval criteria are met.

CITY COUNCIL FINDINGS AND FINAL DECISION

The decision of the City Council is:

Approval of Conditional Use Review to establish a Major Event Entertainment use on this site; and

Approval of two Adjustments:

- To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c).

- To reduce the amount of ecoroof area required from 14,617 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 4,670 square feet (Zoning Code Section 33.510.243.B.1).

The approvals are per the approved plans, Exhibit C-1 through C-4, and subject to the following conditions of approval:

A. As part of the building permit application submittal, each of the required site plans and any additional drawings must reflect the information and design approved by this land use review as indicated in Exhibits C-1 through C-4. The sheets on which this information appears must be labeled, "Proposal and design as approved in Case File # LU 23-111784 CU AD."

B. Prior to issuance of a building permit for this development, the applicant must receive 30 percent public works concept approval and make any required bond payment for required frontage improvements abutting the site.

C. Prior to issuance of a building permit for this development, the applicant must obtain approval of the appropriate permit as determined by PBOT for the proposed truck loading in SE Main Street. The applicant must adhere to all the conditions and stipulations of said permit for the life of the proposed use. If any conditions are found to be in violation, the applicant may be fined and/or applicable permits may be revoked.

D. The applicant must continually implement the transportation demand management (TDM) measures identified in the TDM plan in Exhibit A-10 that are within their control.

E. The applicant must assess the bike parking capacity on an annual basis for the first 3 years after the concert venue begins operation and then every other year after that ending with year 11. That assessment must include bike count averages for events throughout the year. The applicant must send their assessment to PBOT Development Review and PBOT Active Transportation and Safety. If demand consistently exceeds the provided bike parking, the applicant must work with PBOT on remedies, including but not limited to adding additional bike racks or a contract for offering temporary bike racks during events.

EXHIBITS (not attached unless indicated)

A. Applicant's Statement:

Original submittal
1. Original narrative
2. Original plan set
3. Context images
4. Original stormwater report
5. Original transportation study

May 23, 2024 submittal
6. Letter in response to incompleteness determination letter
7. Revised narrative
8. Revised plan set
9. Revised stormwater report
10. Revised transportation study

June 24, 2024 submittal
11. Operations and maintenance plan for stormwater planters and ecoroofs

June 26, 2024 submittal
12. Final revised narrative

B. Zoning Map (attached)
C. Plans & Drawings:
   1. Site plan (attached)
   2. East and south building elevations (attached)
   3. West and north building elevations (attached)
   4. Photo simulation (attached)
D. Notification information:
   1. Request for Response
   2. Sign posting instructions
   3. Applicant's statement certifying posting
   4. Notice of Public Hearing, mailed June 20, 2024
   5 Mailing list for Notice of Public Hearing
E. Agency Responses:

1. Bureau of Environmental Services
2. Portland Bureau of Transportation
3. Water Bureau
4. Fire Bureau
5. Police Bureau
6. Site Development Review Section of BDS
7. Life Safety Review Section of BDS
8. Parks and Recreation - Urban Forestry Division

F. Correspondence (none received)

G. Other:
1. Land use review application
2. Incompleteness determination letter, dated January 12, 2024
3. Applicant email withdrawing bike parking Adjustment request, received June 25, 2024

H. Hearings Office Decision (August 14, 2024) and Exhibits:
1. Hearing request info
2. Hearing participation instructions
3. Notice of hearing
5. Staff Report
6. Staff memo
7. Nick Wood testimony
8. Patrick Fleming testimony
9. Staff presentation
10. Jeff Miller testimony
11. Portland Metro Chamber (PMC) comments
12. OMSI Support letter
13. Live Nation land use comments
14. PBOT Memo
15. Transportation Information
16. PBOT Memo Additional
17. Record closing information
18. Kevin Killian written testimony
19. Aaron Kuehn written testimony
20. Applicant's presentation
21. Jaime Dunphy written testimony
22. LU-23-11784 CU AD 14-day Extension
23. Katie Bergen testimony
24. Kate Sena testimony
25. Chad Colwell testimony
26. Debra Krueger testimony
27. Carolyne Holcomb testimony (CEIC)
28. Jon Meyer testimony
29. Tori Johnson new evidence
30. Tom Liptan new evidence
31. Ronnie Carrier new evidence
32. K. Jasmine Robb testimony
33. Marshall Runkel testimony
34. Kiel Johnson testimony (email chain)
35. Carrie Richter new evidence
36. Applicant's new evidence pt. 1
37. Applicant's new evidence pt. 2
38. Applicant's new evidence pt. 3
39. Bob Sallinger's new evidence
40. PBOT Memo
41. H. Lee & Associates, PLLC
42. Dunphy response to new evidence

43. Runkel updated testimony
44. Applicant's response to new evidence pt. 1
45. Applicant's response to new evidence pt. 2
46. Applicant's response to new evidence pt. 3
47. Applicant's additional response to new evidence
48. Applicant's additional response to new evidence p. 1
49. Applicant's additional response to new evidence p. 2
50. Applicant's additional response to new evidence p. 3
51. Applicant's additional response to new evidence p. 4
52. Applicant's final response to new evidence
53. Runkel further testimony
54. Applicant's final written argument

I. Written testimony submitted to City Council

LU 23-111784 CU AD – In the matter of an appeal by Music Portland against the Hearings Officer's decision to approve with conditions a Conditional Use and Adjustment Review for a new concert venue in the Central Eastside

Applicant's Representative:	Suzannah Stanley Mackenzie 1515 SE Water Ave, Ste. 100 Portland OR 97214
Applicant:	Johnathan Malsin Beam Development 1001 SE Water Ave, Ste. 400 Portland, OR 97214
Owner's Agent:	Paul Gagliardi PDC dba Prosper Portland 222 NW 5th Ave Portland, OR 97209
Owner:	PDC dba Prosper Portland 220 NW 2nd Ave, Ste. 200 Portland, OR 97209
Appellant's Representative:	Carrie Richter Bateman Seidel 1000 SW Broadway, Ste. 1910 Portland, OR 97205
Appellant:	Music Portland 2332 NE Wasco St Portland, OR 97232
Site Address:	West side of SE Water Ave. between SE Salmon St. and SE Main St.
Legal Description:	LOT 1 TL 3602, PARTITION PLAT 2016-7; LOT 1 TL 4305, PARTITION PLAT 2016-8; LOT 1 TL 1705, PARTITION PLAT 2016-9
Zoning:	**IG1** – General Industrial 1
Case Type:	CU AD – Conditional Use Review and Adjustment Review
Procedure:	**Type III**

Proposal

The applicant proposes to construct a new, 62,000-square-foot building on this site to be used as a concert venue with 1,280 seats and a maximum spectator capacity of 3,500. The applicant requests Conditional Use Review approval for a new Major Event Entertainment use in the IG1 zone. Type III Conditional Use Review is required by Zoning Code Sections 33.140.100.C and 33.815.040.A.1.

The applicant also requests approval of two Adjustments to Zoning Code requirements for this project:

- To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c). The applicant proposes to create 2 truck loading spaces which are primarily in the public right-of-way adjacent to the site. However, loading areas in the public right-of-way do not count toward the Zoning Code requirement.

- To reduce the amount of ecoroof area required from 14,617 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 4,670 square feet (Zoning Code Section 33.510.243.B.1).

Note: The applicant originally requested three Adjustments, including an Adjustment request to Zoning Code Section 33.266.200.B.1 to reduce the minimum number of on-site, short-term bike parking spaces from 32 to zero. The applicant had proposed to construct bike parking in the public right-of-way adjacent to the site as justification for this Adjustment. After discussion with the Portland Bureau of Transportation (PBOT), the applicant decided to withdraw this Adjustment request (Exhibit G-3). The applicant will pay into PBOT's bike parking fund when the building permit is issued, as required by Zoning Code Section 33.266.210.E.1.b when there is insufficient space on-site to provide the required short-term bike parking. PBOT would then construct and maintain bike parking in the public right-of-way.

Relevant Approval Criteria

To be approved, this proposal must comply with the approval criteria of Title 33, the Portland Zoning Code. The applicable approval criteria are:

- Zoning Code Section 33.815.215.A-D (Conditional Use Review); and
- Zoning Code Section 33.805.040.A-F (Adjustment Review)

Procedural History
The application for this land use review was submitted on December 22, 2023, and was determined to be complete on May 23, 2024. The Staff Report and Recommendation to the Hearings Officer was issued prior to the hearing before the Hearings Officer. The hearing before the Hearings Officer was held on July 10, 2024. The Hearings Officer held the record open until July 17, 2024, for new evidence, July 24, 2024 for rebuttal evidence, and July 31, 2024 for final legal argument. The record of the hearing was therefore held open consistent with the requirements of ORS 197.797(6). On August 14, 2024, the Hearings Officer, having reviewed and considered all the evidence and argument in the record, issued a decision approving the application with conditions. Music Portland subsequently filed a timely appeal of the Hearings Officer's decision to the City Council on August 27, 2024. The City Council held an on the record hearing on the appeal on September 19, 2024, and unanimously voted to tentatively deny the appeal and uphold the Hearings Officer's Decision with conditions of approval. At the close of the City Council hearing on September 19, 2024, the City Council set a date for adoption of findings and a final vote. At the final proceeding on **October 2, 2024,** the City Council adopted the findings contained in this Decision and the Hearings Officer's final conditions of approval.

Because the appeal to the City Council was an on-the-record proceeding, evidentiary submittals were limited to the evidence that was in the record on the date the Hearings Officer closed the public record; in this case that date is July 31, 2024. No new evidence was permitted during the City Council proceedings. The City Attorney and City Planner monitored the evidence submitted into the record after July 31, 2024, and during the City Council proceedings advised the City Council on a list of submittals that they believed were not previously submitted into the record before the Hearings Officer. The following is a list of new evidence that was submitted to the City Council at the September 19, 2024 appeal hearing:

- The decision adopted by Prosper Portland at their September 18, 2024, meeting, and any information and discussions arising from the Prosper Portland hearing
- Discussions of prior attempts to build mid-size concert venues in the city (though discussion of a current proposal for another mid-size venue was in the record).
- Comments related to impacts from a recent Live Nation-sponsored event at Providence Park
- Information related to pending federal litigation and enforcement against Live Nation that were beyond the close of the record
- Comments regarding allegations of bullying by the applicant's team and use of the word "firebombing" by opponents
- Comments related to experiences at Live Nation concerts in Bend, Oregon, and in Austin, Texas

No party objected to the exclusion of this new evidence and the City Council rejected this evidence from consideration. To the extent any of the many submittals after July 31, 2024, contain new evidence, such evidence is rejected and not included in the record and is not relied on by the City Council this decision.

Decision
Based on evidence in the record and adoption of the Council's Findings and Decision in Case File LU 23-111784 CU AD and by this reference made a part of this Order, it is the decision of the City Council to approve a Conditional Use Review to establish a Major Event Entertainment use on this site; and to approve two Adjustments:

- To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c).

- To reduce the amount of ecoroof area required from 14,617 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 4,670 square feet (Zoning Code Section 33.510.243.B.1).

The approvals are per the approved plans, Exhibit C-1 through C-4, and subject to the following conditions of approval:

A. As part of the building permit application submittal, each of the required site plans and any additional drawings must reflect the information and design approved by this land use review as indicated in Exhibits C-1 through C-4. The sheets on which this information appears must be labeled, "Proposal and design as approved in Case File # LU 23-111784 CU AD."

B. Prior to issuance of a building permit for this development, the applicant must receive 30 percent public works concept approval and make any required bond payment for required frontage improvements abutting the site.

C. Prior to issuance of a building permit for this development, the applicant must obtain approval of the appropriate permit as determined by PBOT for the proposed truck loading in SE Main Street. The applicant must adhere to all the conditions and stipulations of said permit for the life of the proposed use. If any conditions are found to be in violation, the applicant may be fined and/or applicable permits may be revoked.

D. The applicant must continually implement the transportation demand management (TDM) measures identified in the TDM plan in Exhibit A-10 that are within their control.

E. The applicant must assess the bike parking capacity on an annual basis for the first 3 years after the concert venue begins operation and then every other year after that ending with year 11. That assessment must include bike count averages for events throughout the year. The applicant must send their assessment to PBOT Development Review and PBOT Active Transportation and Safety. If demand consistently exceeds the provided bike parking, the applicant must work with PBOT on remedies, including but not limited to adding additional bike racks or a contract for offering temporary bike racks during events.

About this Decision. This land use decision is not a permit for development. Permits may be required prior to any work. Contact the Development Services Center at 503-823-7310 for information about permits.

IT IS SO ORDERED:

October 7, 2024

Date

Rene Gonzalez
Presiding Officer and President of the Council at Hearing
October 2, 2024, 9:30 a.m.

LU 23-111784 CU AD
Order of council mailed: 10/8/24

Emailed: Andrew Gulizia, Kara Fioravanti, Tim Heron, Linly Rees, Lauren King, PPD LUS OSS, Hearings Office Clerks, Doug Morgan, Kurt Krueger, Dawn Krantz, Robert Haley, Dawn Uchiyama, Stephen Himes, Tammy Boren-King

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Portland, OR 97205

Citizen
7680 SW 74th Ave, #4
Portland, OR 97223

Robert Withnell
1330 SW Dolph St
Portland, OR 97219

Sydan Aguacielos
910 NW Island Terrace, #A2
Beaverton, OR 97006

Durant Haruna
2407 SE 12th Ave, #3,
Portland, OR 97214

Reese
2232 SE Pine St, #18
Portland, OR 97214

Adrian J Musician
1421 Stockton St
Forest Grove, OR 97116

Jesselynn Amerling
514 NE Jarrett St
Portland, OR 97211

Ryan Anderson
1478 SE 49th Ave
Portland, OR 97215

Scott Van Dusen
1544 SE Miller St
Portland, OR 97202

Ken Thomas
1221 Ankeny St
Portland, OR 97214

Michael Lipson
5617 N Interstate Ave, #A
Portland, OR 97217

Jakob Foley
2300 NE Halsey St, #5
Portland, OR 97232

Michael Hendricks
12905 SE 29th Ave
Oak Grove, OR 97222

Helen-Thea Marcus
123 7th St
Ashland, OR 97520

Rusty Tedrow
16608 SE East View Ct
Portland, OR 97236

Peter Mohling
4831 NE 91st Ave
Portland, OR 97220

Meg Bender-Stephanski
2937 SE Taylor St
Portland, OR 97214

Kacie Bell
2230 NE Halsey St
Portland, OR 97232

Portland Jazz Composers Ensemble
11018 NE Davis St
Portland, OR 97220

MusicPortland
4530 SW Mueller Dr, #J303
Beaverton, OR 97078

Kirk Larsen
14350 NE Siskiyou Ct
Portland, OR 97230

Julz Clementine
3853 NE 76th Ave
Portland, OR 97213

John Serious
8641 NE Pacific St
Portland, OR 97220

Ben Toledo
1315 N Kipatrick St
Portland, OR 97217

Nicole Lu
9000 NE Sumner St
Portland, OR 97220

Sinead Cowan-Kuist
3478 NE Pacific St
Portland, OR 97232

Jason Caney-Peterson
888 SE 9th Ave, #214
Portland, OR 97214

Oregon Brand Management
222 SE Alder St, #8
Portland, OR 97214

Triska Lee
2134 SE Main St
Portland, OR 97214

Samantha Gladu
422 SE 21ST Ave
Portland, OR 97214

Philip Graham
2332 NE Wasco St
Portland, OR 97232

Shawn Wiley
13710 SW Marcia Dr
Portland, OR 97223

Central Eastside Industrial Council
and Vibrant Table and Events
2010 SE 8th Ave
Portland, OR 97214

Mark funkhouser
6536 SE Duke St
Portland, OR 97206

Jacob Paré
2310 NE 8th Ave, #8
Portland, OR 97212

Edmond Zeringue
6816 N Moore Ave
Portland, OR 97217

N/a
5020 NE 56th Ave
Portland, OR 97218

Mario Hernandez
9806 NE 76th Way
Vancouver, WA 98662

Clayton Standley
7160 SW Raleighwood Ln
Portland, OR 97225

Steffen Wade
6344 SE 88 Ave
Portland, OR 97266

Dylan
9000 NE Sumner St
Portland OR, 97220

Camden Boyd
1620 NE Broadway St, #515
Portland, OR 97232

Stacey Flack
2310 NE 8th Ave, #8
Portland, OR 97212

DTL, Inc. dba Double Tee Concerts
8555 SW Apple Way, #110
Portland, OR 97225

Portland Jobs with Justice
2710 NE 14th Ave
Portland, OR 97212

Ben Seigel
4018 N Mississippi Ave, #413
Portland, OR 97227

N/A
1522 SE 35th Ave
Portland, OR 97214

Self
2629 N Kilpatrick St,
Portland, OR 97217

Brett Sparrey
6625 SE Tolman St
Portland, OR 97206

Emily Nguyen
8839 SW Firview Pl
Beaverton, OR 97007

Urban Works Real Estate
75 SE Yamhill St, #203
Portland, OR 97214

Chris Olsion
2020 NE Clackamas St
Portland, OR 97232

Kate Stanton
6308 SE 67th Ave
Portland, OR 97206

Alicia Stanton
6308 SE 67th Ave
Portland, OR 96206

Individual
4915 SE 37th Ave
Portland, OR 97202

Patrick Russell
5526 N Greeley Ave
Portland, OR 97217

Blaise
50 SE 13th Ave, #217
Portland, OR 97214

Cammie Turner
10966 Southeast 64th Ave
Milwaukie, OR 97222

Music man
1045 W 1st Ave
Eugene, OR 97402

Isabel Hoff
1505 SE Taylor St, #A
Portland, OR 97214

Tori Anderson
18214 SE 24th Way
Vancouver, WA 98683

AI Synthesis
4414 SE 28th Pl
Portland, OR 97202

Craig Rupert
2949 SE Yamhill St, #19
Portland, OR 97214

Jessi Presley-Grusin
1716 SE Taggart St, #A
Portland, OR 97202

Scott Denny
3137 SE Brooklyn St
Portland, OR 97202

Cameron Miller
17104 SE Salmon St
Portland, OR 97233

Dunn Carney LLP
851 SW 6th Ave, #1500
Portland, OR 97204

Isaac King
742 SW Vista Ave, #51
Portland, OR 97205

Ezza Rose
3121 SE Taylor St
Portland, OR 97214

Leah Maurer
4550 NE 109th Ave
Portland, OR 97220 US

Kate O'Brien, MusicPortland
7343 N Princeton St
Portland, OR 97203

Peter Walden
12837 NE Tillamook St
Portland, OR 97230

Sarah Newlands
1926 NE 10th Ave
Portland OR 97212

John Hatfield
7539 N Edgewater Ave
Portland OR 97203

Kate Sunderland
5000 N Willamette Blvd, Kenna Hall 109
Portland, OR 97203

Oved Valadez
4400 SW Fairview Blvd
Portland, OR 97221

Katherine Zipman
255 Northwest 116th Ave
Portland, OR 97229

Michael Taylor
5632 NW Willbridge Ave
Portland, OR 97210

Matthew Curran
2023 NE 8th Ave
Portland, OR 97212

CJ Alicandro
38 NE 60th Ave
Portland, OR 97218

Kallista Mason
1701 SW Columbia St, #111
Portland, OR 97201

James Dalton
6625 SE 72nd Ave
Portland, OR 97206

Seth Kaufman
8205 SW 2nd Ave
Portland, OR 97219

Bridgid Blackburn
81 SE Yamhill St
Portland, OR 97214

Zane
1657 SW 173rd Ter
Beaverton, OR 97003

Robin Levy
4751 NE Davis St
Portland, OR 97213

Dennis Osterlund, Optimizing Systems
3048 SE Crystal Springs Blvd
Portland, OR 97202

Vinyl on Demand
2337 NW York St, #201B
Portland, OR 97210

Jane Ellen Unger
8475 SW Brentwood St
Portland, OR 97225

Esa Hall
1225 SE Pershing St
Portland, OR 97202

Carol A. Herzog
17336 Hunter Ct
Lake Oswego, OR 97035

National Independent
Venue Association
209 West 29th St, #263
New York, NY 10001

The Domestics
2607 Argyle St
Portland, OR 97209

Paul Troiano
480 NE 9th Ave
Portland, OR 97232

Steve Novick
4301 SE Lexington St
Portland, OR 97206

Sesame Collective DBA Shalom Y'all
117 SE Taylor St
Portland, OR 97214

Isa Guragain
3057 NE Overlook Dr, #1433
Hillsboro, OR 97124

Todd Mylet, Portland Fret Works
3027 NE Alberta St
Portland, OR 97211

Alex Little
8910 SW 9th Dr
Portland, OR 97219

1000 Friends of Oregon
340 SE 6th Ave
Portland, OR 97214

MusicPortland
9405 N Richmond Ave
Portland, OR 97203

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745 NW Hoyt St, #6702
Portland, OR 97208

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100 SW Main St, #1100
Portland, OR 97204

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Beaverton, OR 97005

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Portland, OR 97202

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7343 N Princeton St
Portland, OR 97203

Music Portland
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Portland, OR 97214

Missi Hasting
9908 SW 55th Ave
Portland, OR 97219

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Portland, OR 97213

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Portland, OR 97225

Jessica Dalton
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Portland, OR 97206

Steph Routh
5031 SE 85th Ave
Portland, OR 97266

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Honolulu, HI 96815

Jeremy Wilson
1028 SE Water Ave
Portland, OR 97214

Honkytonk Basement
6107 NE 10th Ave
Portland, OR 97211

Central Eastside Industrial Council
1028 SE Water Ave
Portland, OR 97214

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2809 NW 100th St
Vancouver, WA 98685

Lewi Longmire
914 N Alberta St
Portland, OR 97217

Edward Reinfranck, Mr. Happy
1905 NW 23rd Ave
Portland, OR 97210

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Portland, OR 97219

Carolyn Burnes
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Portland, OR 97206

Colt Kranig
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Portland, OR 97214

Mía Keeler, Local Fest Connects LLC
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Portland, OR 97227

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Portland, OR 97214

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320 S Montgomery St, #423
Portland, OR 97201

Max Lamb
2711 SW Carolina St
Portland, OR 97239

Stefan Reichardt
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Portland, OR 97202

Ola Kalejaye
1130 SE Morrison St
Portland, OR 97214

Portland State University
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Portland, OR 97203

Kathleen Bundy
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Portland, OR 97201

Luke Hendrickson
4215 NE 23rd Ave
Portland, OR 97211

Riley Harris
2536 NE 61st Ave
Portland, OR 97213

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Portland, OR 97202

Kristina Nelson
1029 SE 21st Ave
Portland, OR 97214

Syrah Rae
3532 SW Alice St
Portland, OR 97219

KC Weimann
3715 SE 69th Ave
Portland, OR 97206

Brendan Hale
2232 SE 31st Ave
Portland, OR 97214

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6127 SE Cora St
Portland, OR 97206

Liz Rubin
2833 SE 112th Ave
Portland, OR 97266

Heather Cummings
311 NE 103rd Ave
Portland, OR 97220

Rachel Severein
1130 SE Morrison St, #609
Portland OR 97214

Live nation
4777 N Drew St
Portland, OR 97203

Timothy Wilson
4132 NE 29th Avenue
Portland, OR 97211

Kari Schlaht / Honey Latte Café
5353 SE 87th Ave
Portland, OR 97266

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Portland, OR 97232

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Beaverton, OR 97078

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Portland, OR 97202

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Portland, OR 97213

Cheri Jamison
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Vancouver, WA 98661

Jeremy Baron
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Portland, OR 97217

777 Booking / Northwest Hardcore Festx
4505 SE Boise St
Portland, OR 97206

Ben Jamison
5312 NE 54th St
Vancouver, WA 98661

Curt Allan
6356 N Boston Ave
Portland, OR 97217

Mandy ohara
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Portland, OR 97206

David Leiken
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Portland, OR 97225

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Portland, OR 97206

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Portland, OR 97213

Renée Muzquiz
9405 N Richmond Ave
Portland, OR 97203

Emmett McGregor
1017 NE Roselawn St
Portland, OR 97214

J. Weitz & M. Schweitzer
North Rim Development Group
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Portland, OR 97214

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Portland, OR 97214

Steven Ungar
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Portland, OR 97214

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2025 NW 29th Ave, #6
Portland, OR 97210

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121 SW Salmon St, #1440
Portland, OR 97204

Katie Dalziel
2222 NE Pacific St, #I
Portland, OR 97232

Cassie Wilson
1250 E Burnside St, #131
Portland, OR 97214

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1945 SE Water Ave
Portland OR 97214

Brian Conley
335 SE 76th Ave
Portland, OR 97215

Jacob Westfall
38954 Proctor Blvd, #331
Sandy, OR 97055

Mike Theln
615 SE 34th Ave
Portland, OR 97214

Anna Martinez
335 SE 76th Ave
Portland, OR 97215

Nick Wood
1028 SE Water Ave, #130
Portland, OR 97214

Carolyne Holcomb
1028 SE Water Ave
Portland, OR 97214

John Carter
5508 N Detroit Ave
Portland, OR 97217

Kathleen Culbert
1500 SW Park Ave
Portland, OR 97201

Art Fortuna
2010 SE 8th Ave
Portland, OR 97214

Jordan Krinsky
6027 N Minnesota Ave
Portland, OR 97217

Sam Cole
2854 SE 47th Ave
Portland, OR 97206

Loretta Smith
3818 NE 156th
Portland, OR 97230

Amy Maxwell
6200 S Virginia Ave, #208
Portland, OR 97239

Nate McCoy
2027 Lloyd Center, #2027
Portland, OR 97232

Marney E Smith
15 SW Colorado Ave, #1,
Bend, OR 97702

Laura Streib
PO Box 83494
Portland, OR 97283

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Portland, OR 97214

Joe Rogers
2530 SW Scenic Dr
Portland, OR 97225

Santiago Ortega
3201 NE 223rd Ave, #70
Fairview, OR 97024

James Posey
1257 Lloyd Center
Portland, OR 97232

Chris Oxley
8122 SW 61st Ave
Portland, OR 97219

Marshall Runkel
4018 N Kerby Ave
Portland, OR 97227

Andrew Hoan
121 SW Salmon St, #1440
Portland, OR 97204

Email list for non-fee letter, ooc and findings - sent to testimony that didn't provide a mailing address

Tony Prato
tonyprato@gmail.com

Kaitlin Carpenter
such-the-best@hotmail.com

Katelyn Convery
kcmusicbooking@gmail.com

Sarah
Marthaskeward@yahoo.com

Carolyne Holcomb
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Justyne Triest
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M Mathews
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SE Portland Resident
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Nathan Varner
nvarner02@gmail.com

Duncan Richins
duncanrichins@gmail.com

Jason Raistakka
Crashassailantrecords@gmail.com

Portland City Auditor
Council Clerk

October 8, 2024

Johnathan Malsin
Beam Development
1001 SE Water Ave, Ste. 400
Portland, OR 97214

PDC dba Prosper Portland
220 NW 2nd Ave, Ste. 200
Portland, OR 97209

LU 23-111784 CU AD – In the matter of an appeal by Music Portland against the Hearings Officer's decision to approve with conditions a Conditional Use and Adjustment Review for a new concert venue in the Central Eastside

Enclosed is a copy of the Order of Council on LU 23-111784 CU AD. If you wish to obtain a copy of the City Council's findings and decision, contact the Council Clerk by email at councilclerk@portlandoregon.gov or at (503) 823-4082.

The Order of Council must be recorded with the Multnomah County Recorder within 10 days of receipt of this letter. Follow the instructions below to ensure compliance. The City Auditor's Office will submit the Order of Council to the County for recording.

1. Prepare a check for $101.00 made payable to the Multnomah County Recorder, indicating the land use case file number on your check.

2. MAIL CHECK TO: City of Portland, Office of the City Auditor – Council Clerk, 1221 SW 4th Ave, Room 130, Portland, OR 97204-1900

City Council's decision is the final review process available through the City. You may appeal this decision to the Oregon Land Use Board of Appeals (LUBA) by filing a Notice of Intent to Appeal with LUBA within 21 days of the date of decision, as specified in the Oregon Revised Statute (ORS) 197.830. Among other things, ORS 197.830 requires that a petitioner at LUBA must have appeared orally or in writing during the City's proceedings on this land review. Until October 31, 2024, LUBA's address is 775 Summer Street NE, Suite 330, Salem, Oregon 97301-1283. Effective November 1,

Portland City Auditor
Council Clerk

NOTICE OF FINAL DECISION

TO: All Interested Persons
DATE: October 8, 2024

LU 23-111784 CU AD – In the matter of an appeal by Music Portland against the Hearings Officer's decision to approve with conditions a Conditional Use and Adjustment Review for a new concert venue in the Central Eastside

To Whom It May Concern:

Enclosed is a copy of the Order of Council on LU 23-111784 CU AD, denying the appeal, upholding the decision of the Hearings Officer and adopting the findings. If you wish to obtain a copy of the City Council's findings and decision, please contact the Council Clerk by email at councilclerk@portlandoregon.gov or at (503) 823-4082.

City Council's decision is the final review process available through the City. You may appeal this decision to the Oregon Land Use Board of Appeals (LUBA) by filing a Notice of Intent to Appeal with LUBA within 21 days of the date of decision, as specified in the Oregon Revised Statute (ORS) 197.830. Among other things, ORS 197.830 requires that a petitioner at LUBA must have appeared orally or in writing during the City's proceedings on this land review. Until October 31, 2024, LUBA's address is 775 Summer Street NE, Suite 330, Salem, Oregon 97301-1283. Effective November 1, 2024, LUBA's address is 201 High Street, SE, Suite 600, Salem, Oregon 97301-3398. Until December 31, 2024, LUBA will accept as correctly addressed pleadings addressed to either location. You may call LUBA at 1-503-373-1265, email at LUBA.Support@luba.oregon.gov, or visit the website (www.oregon.gov/LUBA) for further information on filing an appeal.

Yours sincerely,
Simone Rede
Auditor of the City of Portland
By: Keelan McClymont
Keelan McClymont, Council Clerk

Encl.

2024, LUBA's address is 201 High Street, SE, Suite 600, Salem, Oregon 97301-3398. Until December 31, 2024, LUBA will accept as correctly addressed pleadings addressed to either location. You may call LUBA at 1-503-373-1265, email at LUBA.Support@luba.oregon.gov, or visit the website (www.oregon.gov/LUBA) for further information on filing an appeal.

Yours sincerely,
Simone Rede
Auditor of the City of Portland
By: Keelan McClymont
Keelan McClymont, Council Clerk

Encl.
Cc: Suzannah Stanley, Mackenzie
Paul Gagliardi, PDC dba Prosper Portland

NOTICE OF A PUBLIC HEARING BEFORE THE CITY COUNCIL ON AN APPEAL OF A HEARINGS OFFICER DECISION

CASE FILE: **LU 23-111784 CU AD**
WHEN: **THURSDAY, SEPTEMBER 19, 2024, AT 2:00 PM**
ACCESS: See https://www.portland.gov/council/agenda. Beginning Friday, September 13, 2024, this page will provide specific information on how to participate in the City Council hearing virtually or in person.

Mail Date: August 29, 2024
To: Interested Person
From: Andrew Gulizia, Land Use Services Planner
(503) 865-6714, andrew.gulizia@portlandoregon.gov

A public hearing will be held to consider an appeal of the Hearings Officer's decision to approve with conditions a Conditional Use Review and Adjustment Review for property on the west side of SE Water Ave. between SE Salmon St. and SE Main St. The Hearings Officer's decision has been appealed by Music Portland. At the hearing, the City Council will consider the appeal. You are invited to testify at the hearing.

This will be an on-the-record hearing, one in which new evidence cannot be submitted to the City Council. Please refer to the "General Explanation of City Council Appeal Hearing Process" page attached to this notice.

GENERAL INFORMATION

Appellant:
Music Portland
2332 NE Wasco St.
Portland, OR 97232
info@MusicPortland.com

Appellant's Representative:
Carrie Richter
Bateman Seidel
1000 SW Broadway #1910
Portland, OR 97205
(503) 972-9920
crichter@batemanseidel.com

Applicant:
Johnathan Malsin
Beam Development
1001 SE Water Ave., Ste. 400
Portland, OR 97214
jonathan@beamdeveloment.com

Applicant's Representative:
Suzannah Stanley
Mackenzie
1515 SE Water Ave., Ste. 100
Portland OR 97214
(971) 346-3808
sstanley@mcknze.com

Property Owner:	PDC dba Prosper Portland 220 NW 2nd Ave. #200 Portland, OR 97209
Property Owner's Agent:	Paul Gagliardi PDC dba Prosper Portland 222 NW 5th Ave. Portland, OR 97209 gagliardip@propserportland.us
Site Location:	west side of SE Water Ave. between SE Salmon St. and SE Main St.
Legal Description:	LOT 1 TL 3602, PARTITION PLAT 2016-7; LOT 1 TL 4305, PARTITION PLAT 2016-8; LOT 1 TL 1705, PARTITION PLAT 2016-9
Tax Account No.:	R649670250, R649670290, R649670330
State ID No.:	1S1E03AD 03602, 1S1E03AD 04305, 1S1E03AD 01705
Quarter Section:	3130
Neighborhood:	Buckman, contact Nick Olson at buckmanlandusepdx@gmail.com
Business District:	Central Eastside Industrial Council, contact Eric Cress at ceic@ceic.cc.
District Coalition:	District 3, contact at matchu@seuplift.org
Plan District:	Central City (Central Eastside Subdistrict)
Zoning:	IG1 – General Industrial 1
Case Type:	CU AD – Conditional Use Review and Adjustment Review
Procedure:	Type III, with a public hearing before the Hearings Officer. The decision of the Hearings Officer can be appealed to City Council.

Proposal: The applicant proposes to construct a new, 62,000-square-foot building on this site to be used as a concert venue with 1,280 seats and a maximum spectator capacity of 3,500. The applicant requests Conditional Use Review approval for a new Major Event Entertainment use in the IG1 zone. Type III Conditional Use Review is required by Zoning Code Sections 33.140.100.C and 33.815.040.A.1.

The applicant also requests approval of two Adjustments to Zoning Code requirements for this project:

- To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c). The applicant proposes to create 2 truck loading spaces which are primarily in the public right-of-way adjacent to the site. However, loading areas in the public right-of-way do not count toward the Zoning Code requirement.

- To reduce the amount of ecoroof area required from 14,617 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 4,670 square feet (Zoning Code Section 33.510.243.B.1).

Relevant Approval Criteria: To be approved, this proposal must comply with the approval criteria of Title 33, the Portland Zoning Code. The applicable approval criteria are:

- Zoning Code Section 33.815.215.A-D (Conditional Use Review); and
- Zoning Code Section 33.805.040.A-F (Adjustment Review).

The Portland Zoning Code is available online at https://www.portland.gov/code/33.

HEARINGS OFFICER DECISION

The following decision of the Hearings Officer was issued on August 14, 2024:

Approval of Conditional Use Review to establish a Major Event Entertainment use on this site; and

Approval of two Adjustments:

- To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c).

- To reduce the amount of ecoroof area required from 14,617 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 4,670 square feet (Zoning Code Section 33.510.243.B.1).

The full decision is available on the PP&D website: https://www.portland.gov/ppd/zoning-land-use/news/notices. Enter the land use case file number in the keyword search.

APPEAL

The Hearings Officer's decision has been appealed by Music Portland. The appellant asserts the Hearings Officer's decision erred by not adequately responding to transportation issues such as truck movements in the street and conflicts with train crossings, by not adequately protecting the industrial character of the area, by not adequately considering the benefits intended to be provided by full ecoroof coverage, and by not considering negative impacts from the business practices of the intended operator of the concert venue (Live Nation).

The full appeal statement can be viewed in the notice located on the PP&D website at https://www.portland.gov/ppd/zoning-land-use/events. Enter the land use case file number in the keyword search.

Review of the case file: If you are interested in viewing information in this file, please contact the planner listed on the front of this notice. The planner can email you documents from the file. A fee would be required for requests for paper copies of file documents.

We are seeking your comments on this proposal. The hearing will be held before the City Council. To comment, you may submit written comments in advance or testify at the hearing. In your comments, you should address the approval criteria stated above. Please refer to the file number when seeking information or submitting testimony. Written comments **must be received by the end of the hearing** and should include the case file number and the name and address of the submitter. Attached to this notice is a description of the City Council Hearing process and instructions for submitting comments.

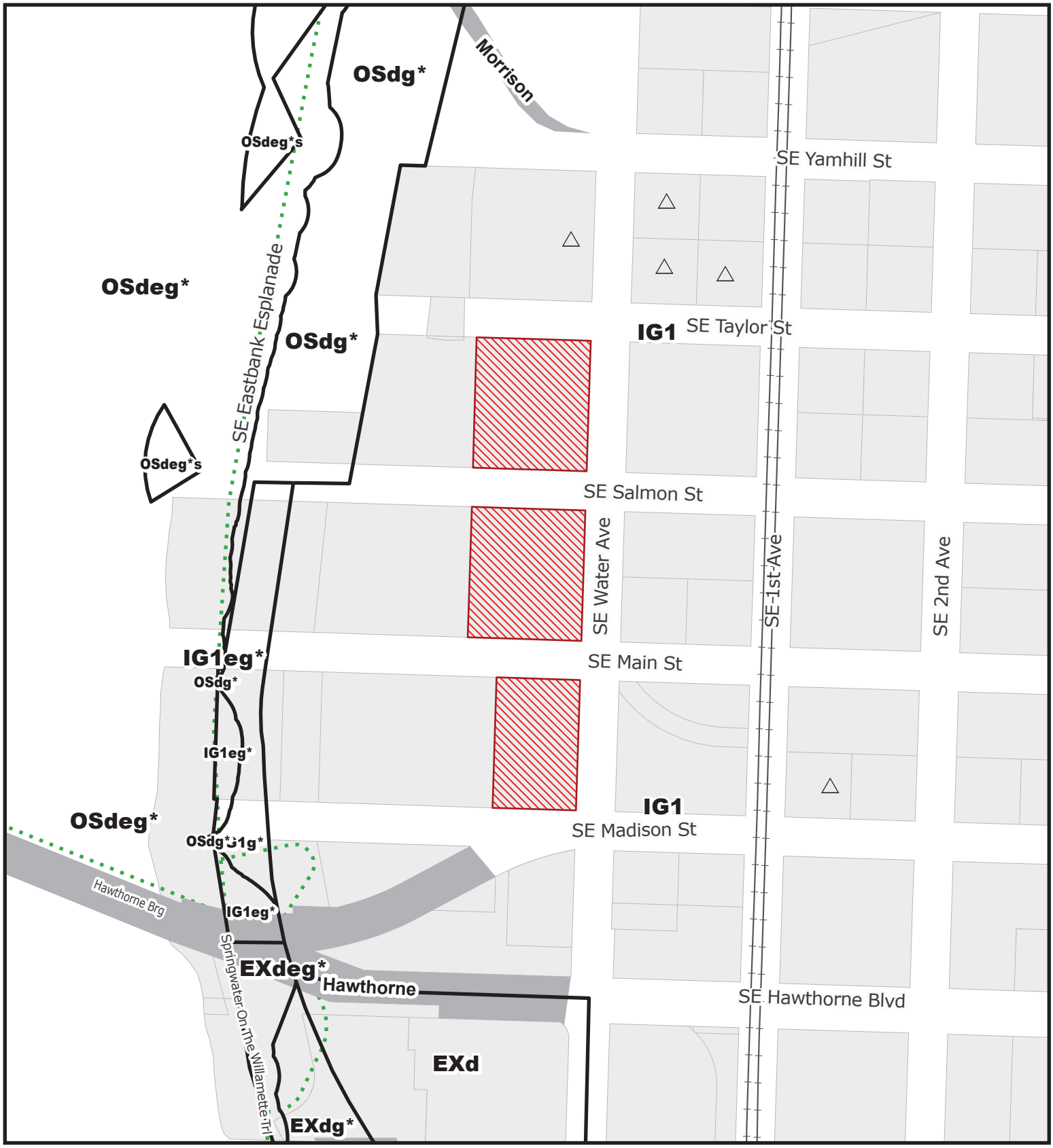
Submit written testimony online at https://www.portland.gov/council-clerk/lu-23-111784-written-testimony or by mail to the Council Clerk, 1221 SW Fourth Avenue, Room 130, Portland, Oregon 97204. Written testimony will be distributed to the City Council and included in the public record if received before the record is closed. Due to legal and practical reasons, City Council members cannot accept electronic mail on cases under consideration by the Council. Questions may be submitted to the Council Clerk at (503) 823-4082 or councilclerk@portlandoregon.gov.

The City Council's decision is the final decision of the City. Any further appeal must be filed with the Oregon Land Use Board of Appeals (LUBA). Failure to raise an issue in a hearing, in person or by letter, by the close of the record or at the final hearing on the case or failure to

provide sufficient specificity to afford the City Council an opportunity to respond to the issue, precludes an appeal to LUBA on that issue. Also, if you do not provide enough detailed information to the City Council, they may not be able to respond to the issue you are trying to raise.

Request interpretation or an accommodation online at https://www.portland.gov/311/ada-request or call 503-823-4000. Please make your request at least 5 days before the hearing.

Attachments
1. Zoning map
2. Site plan
3. East and south building elevations
4. West and north building elevations
5. Photo simulation
6. City Council appeal hearing process
7. Appeal statement (on-line version only)



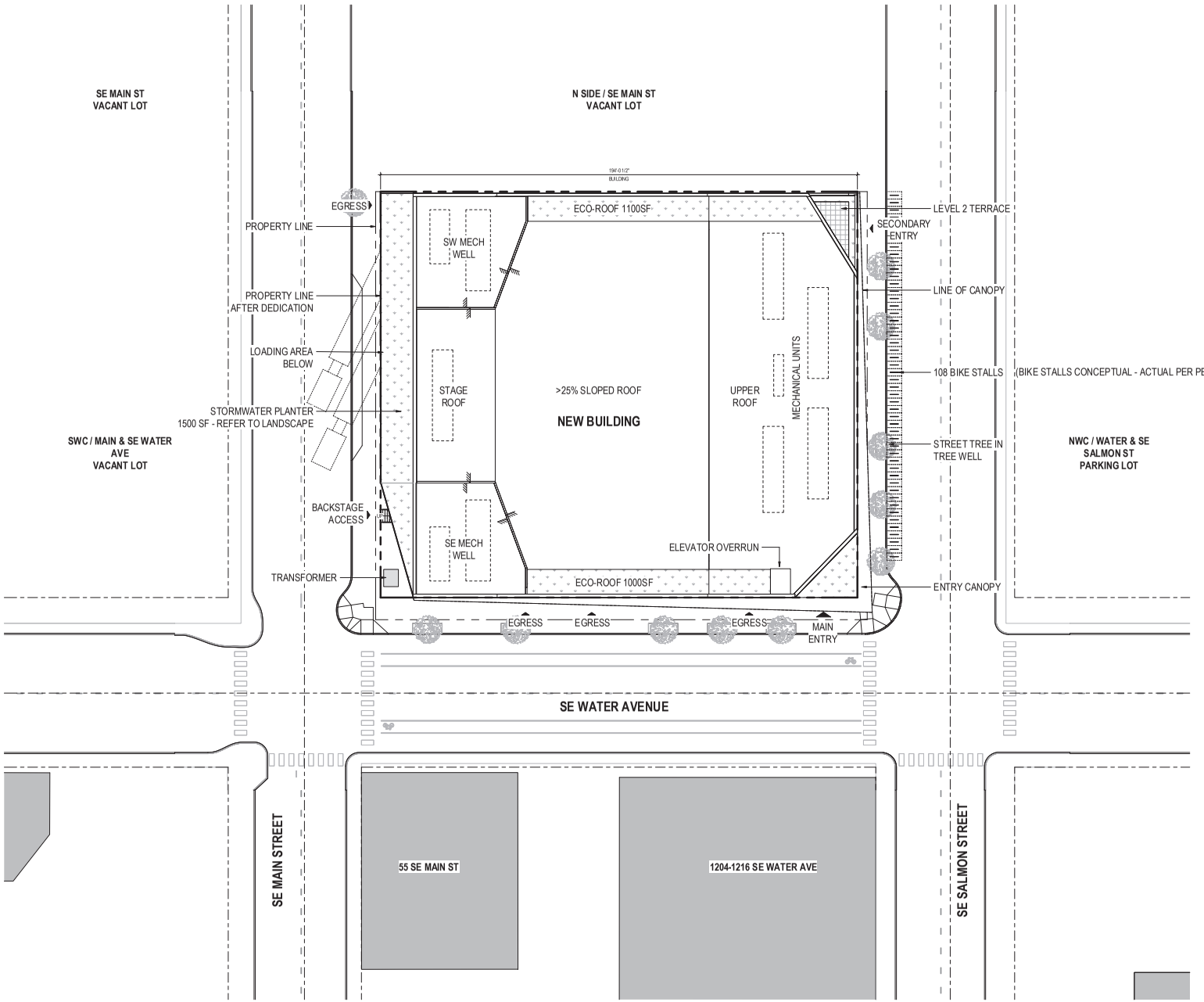
For Zoning Code in Effect Post October 1, 2022

ZONING

THIS SITE LIES WITHIN THE:
CENTRAL CITY PLAN DISTRICT
CENTRAL EASTSIDE SUBDISTRICT

Site
Historic Landmark
Recreational Trails

File No.	LU 23 - 111784 CU AD
1/4 Section	3130
Scale	1 inch =200 feet
State ID	1S1E03AD 3602
Exhibit	B Jan 16, 2024



1 Z090 ZONING - SITE PLAN
SCALE: 1/16" = 1'-0"

65-75 SE MAIN ST

SITE DATA TABLE

SITE AREA:
34,960 SF

SITE AREA AFTER DEDICATION:
32,040 SF

BUILDING COVERAGE:
31,600 SF

TOTAL BUILDING AREA:
98,000 SF

VENUE CAPACITY:
APPROX 3,800 OCCUPANTS

BIKE PARKING TOTALS

(TABLE 266-6 MAJOR EVENT ENTERTAINMENT)

LONG TERM BIKE PARKING:
REQUIRED: 19 PROVIDED: 19

SHORT TERM BIKE PARKING:
3800 OCCS / 40
REQUIRED: 95 PROVIDED: 108

CENTRAL EASTSIDE VENUE

NWC/MAIN & SE WATER AVE
PORTLAND, OR 97214

ARCHITECT
LEVER
4713 N. Albina Avenue,
4th Floor Portland, OR 97217
T. 503.928.6040
www.leverarchitecture.com

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REVISIONS

PHASE
SCHEMATIC DESIGN

DATE
DECEMBER 21, 2023

PROJECT NUMBER
271

SCALE
As indicated

SHEET TITLE
ZONING - SITE PLAN

Z090

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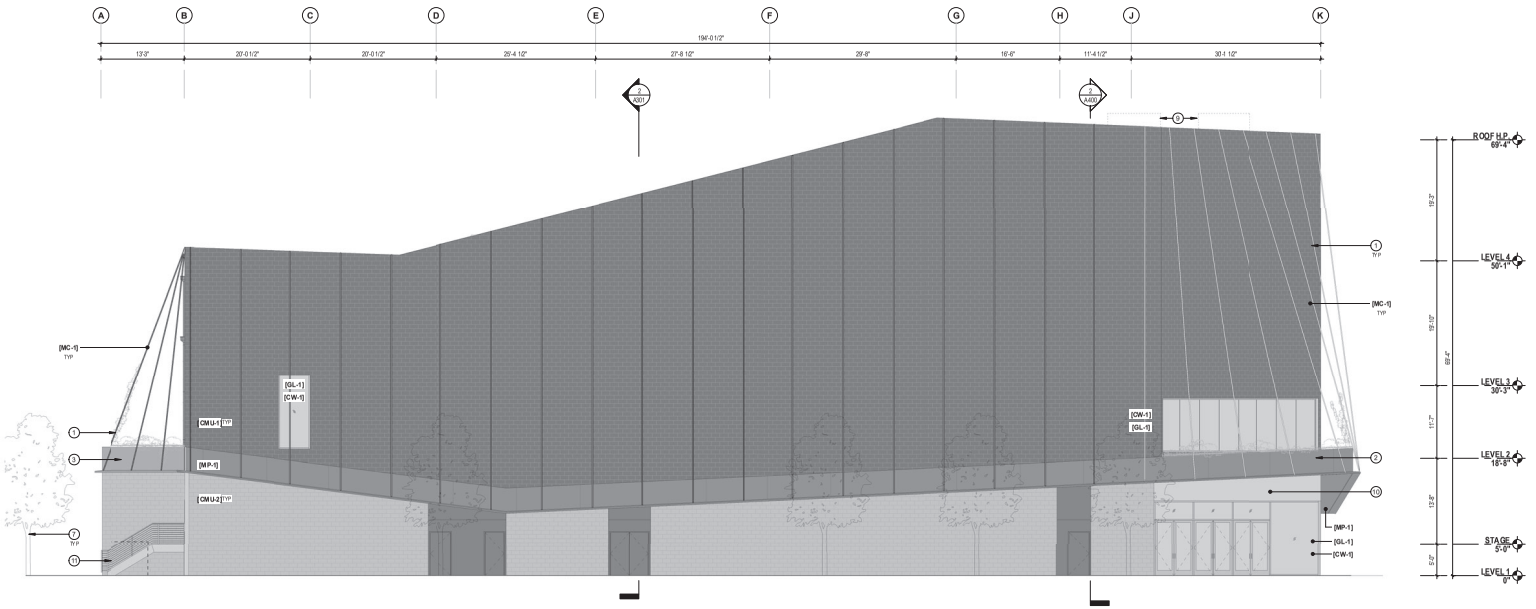
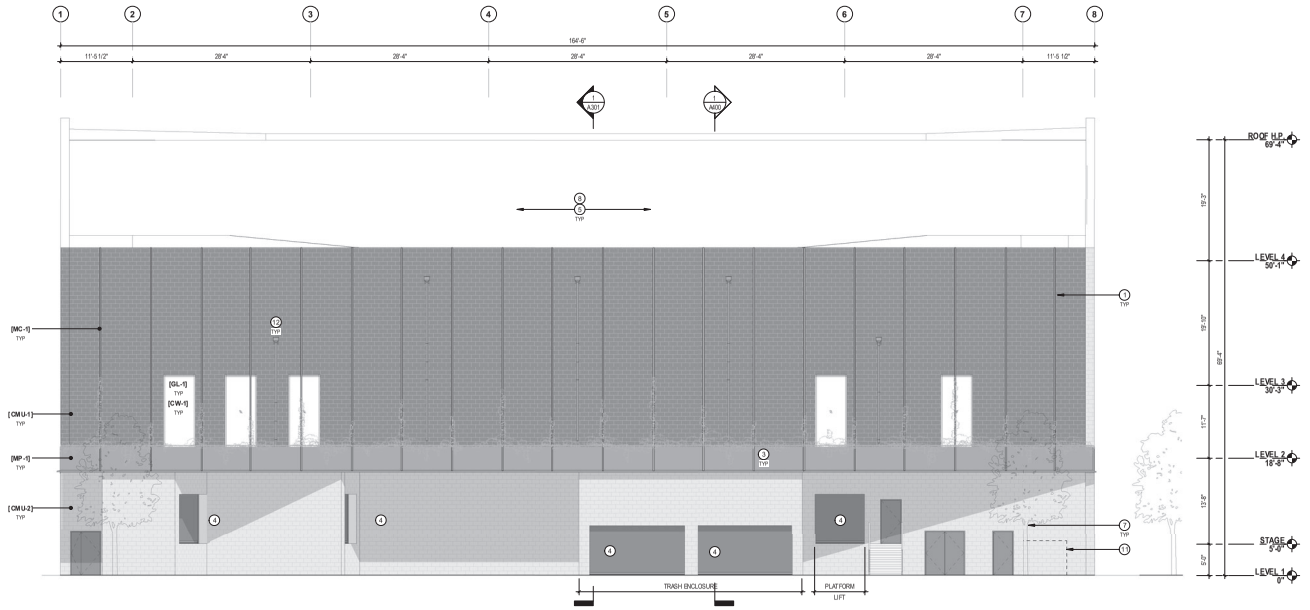


1 Z201 ZONING - EAST BUILDING ELEVATION
SCALE: 1/8" = 1'-0"



2 Z201 ZONING - SOUTH BUILDING ELEVATION
SCALE: 1/8" = 1'-0"

ELEVATION KEYNOTES

1 NON-STRUCTURAL STEEL CLIMBING VINE TRELLIS.
2 CLIMBING VINE PLANTER/ CANOPY. REFER TO WALL SECTION FOR DETAILS
3 STORMWATER PLANTER
4 OVERHEAD ROLL-UP DOOR.
5 +20% SLOPED ROOF BEYOND
6 EXISTING CURB EXTENSION
7 STREET TREE IN TREE WELL.
8 ROOFING MEMBRANE COMPLIANT WITH COOL ROOF REQUIREMENTS.
9 MECHANICAL UNIT BEYOND
10 LED DISPLAY
11 TRANSFORMER
12 SCUPPER & DOWNSPOUT

FINISH + MAT'L LEGEND

[CONC-1] CAST-IN-PLACE CONCRETE
[CMU-1] CONCRETE MANSONRY UNIT BOD: MUTUAL MAT'LS GROUND FACE 8 8-16 STANDARD IN SABLE
[CMU-2] CONCRETE MANSONRY UNIT - FLUTED FACE WITH CLEAR FINISH BOD: MUTUAL MAT'LS 8-16 7-SCORE BOND BEAM SPLIT FACE
[CW-1] ALUMINUM CURTAIN WALL
[CP-1] PRECAST CONCRETE PAVER
[DP-1] BITUMINOUS DAMPPROOFING
[GL-1] 1" INSULATED GLAZING UNIT
[GR-1] EXTERIOR 42" GUARDRAIL BOD: STEEL PIPE + CARL STAHL X-TEND CABLE MESH
[GR-2] BALCONY 42" GUARDRAIL BOD: REFER TO OWNER STANDARD
[HR-1] HANDRAIL
[INSUL-1] BATT INSULATION
[INSUL-2] MINERAL WOOL INSULATION
[INSUL-3] POLYISOCYANURATE INSULATION
[INSUL-4] EXPANDED POLYSTYRENE INSULATION
[INSUL-5] EXTRUDED POLYSTYRENE INSULATION
[INSUL-6] CLOSED CELL SPRAY FOAM INSULATION
[MC-1] STEEL TRELLIS SYSTEM BOD: CARL STAHL GREEN CABLE HEAVY
[MP-1] COMPOSITE METAL PANEL
[MF-1] SHEET METAL FLASHING
[MR-1] MIRROR
[P-1] PAINT - COLOR 1
[RF-1] 60 MIL SINGLE-PLY PVC ROOF
[RF-2] 2-PLY SBS ROOF ASSEMBLY
[SAM-1] ASPHALTIC FLASHING MEMBRANE
[SAM-2] BUTYL FLASHING MEMBRANE
[SAM-3] HIGH-TEMP FLASHING MEMBRANE
[WOM-1] RECESSED WALK-OFF MAT
[WP-1] BELOW GRADE WATERPROOFING - BENTONITE
[WP-2] BELOW GRADE WATERPROOFING - SHEET MEMBRANE
[WR-1] WATER REPELLANT COATING
[WR-2] WATER REPELLANT + GRAFFITI COATING
[VPR-1] INTERIOR VAPOR RETARDER
[VPR-2] ROOF VAPOR RETARDER
[VPR-3] UNDER-SLAB VAPOR RETARDER

STEEL TRELLIS TOTALS

QTY: 65
VARIED LENGTHS
LONGEST: 60' -0" SHORTEST: 30' - 6"

CENTRAL EASTSIDE VENUE

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SCALE
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SHEET TITLE
EXTERIOR BUILDING ELEVATIONS - SOUTH & EAST

Z201

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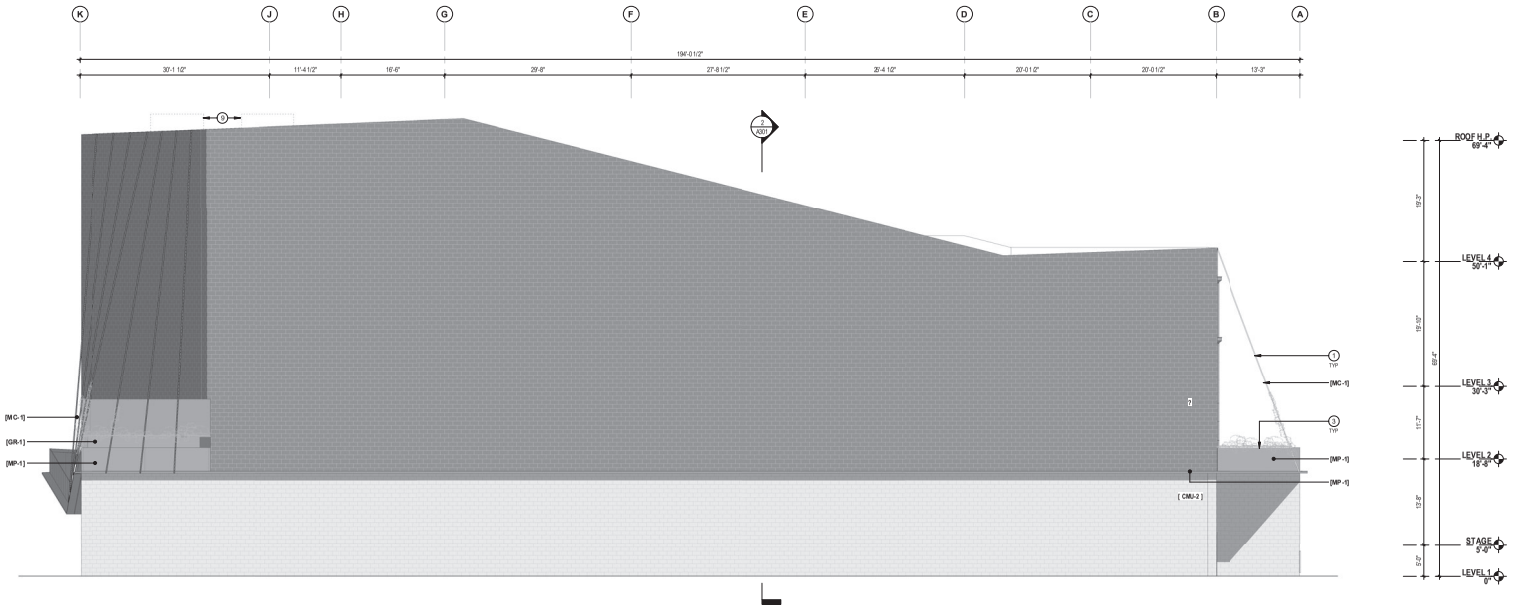
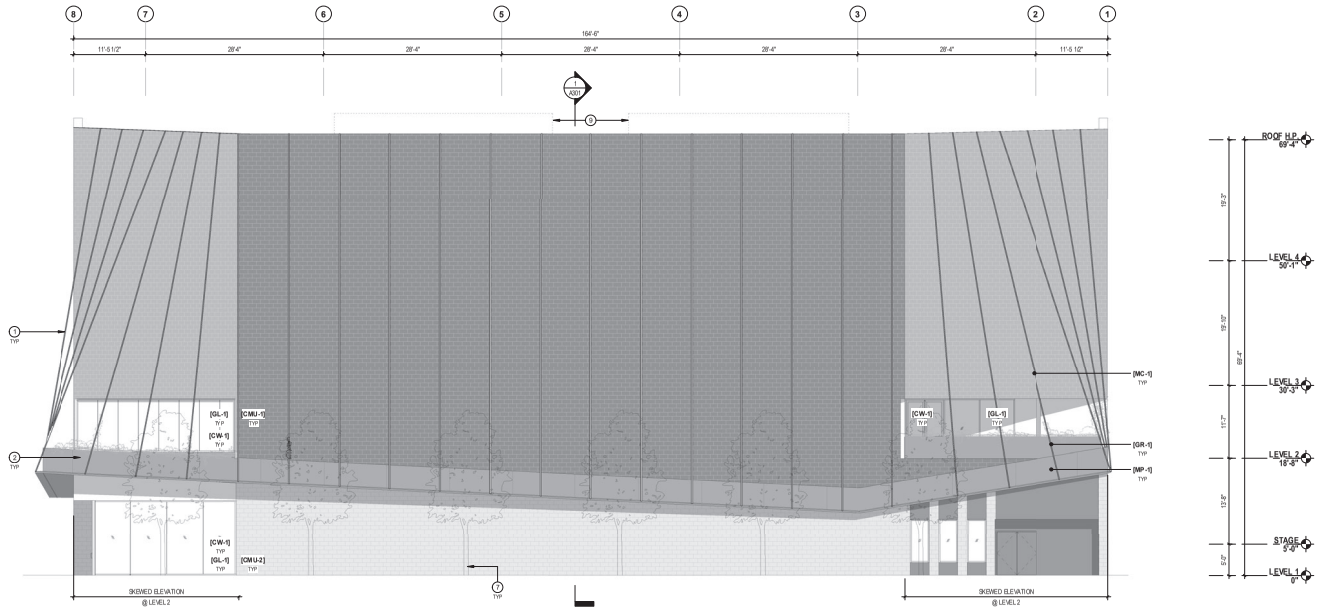


2 / Z202 ZONING - WEST BUILDING ELEVATION

SCALE: 1/8" = 1'-0"



1 / Z202 ZONING - NORTH BUILDING ELEVATION

SCALE: 1/8" = 1'-0"

ELEVATION KEYNOTES

1 NON-STRUCTURAL STEEL CLIMBING VINE TRELLIS
2 CLIMBING VINE PLANTER/ CANOPY. REFER TO WALL SECTION FOR DETAILS
3 STORMWATER PLANTER
4 OVERHEAD ROLL-UP DOOR.
5 +20% SLOPED ROOF BEYOND
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FINISH + MAT'L LEGEND

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[CW-1] ALUMINUM CURTAIN WALL
[CP-1] PRECAST CONCRETE PAVER
[DP-1] BITUMINOUS DAMPPROOFING
[GL-1] 1" INSULATED GLAZING UNIT
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[GR-2] BALCONY 42" GUARDRAIL BOD: REFER TO OWNER'S STANDARD
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[P-1] PAINT - COLOR 1
[RF-1] 60 MIL SINGLE-PLY PVC ROOF
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As indicated

SHEET TITLE
EXTERIOR BUILDING ELEVATIONS - NORTH & WEST

Z202

LU 23-111784 CU AD Exhibit C-4

GENERAL EXPLANATION OF CITY COUNCIL APPEAL HEARING PROCESS FOR ON-THE-RECORD APPEALS

1. SUBMISSION OF LEGAL ARGUMENT

a. On-the record appeals are limited to legal argument only. The only evidence that will be considered by the City Council is the evidence that was submitted to the Hearings Officer prior to the date the Hearings Officer closed the evidentiary record. In their testimony, parties may refer to and criticize or make arguments in support of the validity of evidence received by the Hearings Officer. However, parties may not submit new evidence in their testimony to supplement or rebut the evidence received by the Hearings Officer.

b. Submit written testimony online at https://www.portland.gov/council-clerk/lu-23-111784-written-testimony or by mail to the Council Clerk, 1221 SW Fourth Avenue, Room 130, Portland, Oregon 97204. Written testimony will be distributed to the City Council and included in the public record if received before the record is closed. Due to legal and practical reasons, City Council members cannot accept electronic mail on cases under consideration by the Council.

c. Legal argument may be submitted orally (see below).

2. COUNCIL REVIEW

a. The order of appearance and time allotments are generally as follows:

staff report	10 minutes
appellant	10 minutes
supporters of the appellant	3 minutes each
applicant	15 minutes
supporters of the applicant	3 minutes each
appellant rebuttal	5 minutes
Council discussion	

b. In-person and virtual testimony registration begins when the September 18-19, 2024 City Council agenda is published by 9:00 a.m. on Friday, September 13 at https://www.portland.gov/council/agenda. Registration for virtual testimony closes one hour prior to the Council meeting. In-person testifiers must sign up before the agenda item is heard.

c. The applicant has the burden of proof to show that the evidentiary record compiled by the Hearings Officer demonstrates that each and every element of the approval criteria is satisfied.

d. In order to prevail, the opponents of the applicant must persuade the City Council to find that the applicant has not carried the burden of proof to show that the evidentiary record compiled by the Hearings Officer demonstrates that each and every element of the approval criteria is satisfied. The opponents may wish to argue the criteria are being incorrectly applied, the wrong approval criteria are being applied or additional approval criteria should be applied.

e. The failure to address an issue with sufficient specificity to afford the City Council and the parties an opportunity to respond to the issue precludes an appeal to the Land Use Board of Appeals (LUBA) on that issue.

3. OTHER INFORMATION

a. If you are interested in viewing information in the file, please contact the planner listed on the front of this notice. A digital copy of the Portland Zoning Code is available online at https://www.portland.gov/code/33.

Request interpretation or an accommodation online at https://www.portland.gov/311/ada-request or call 503-823-4000. Please make your request at least 5 days before the hearing.

City of Portland, Oregon - Portland Permitting & Development

1900 SW Fourth Avenue • Portland, Oregon 97201 | 503-823-7300 | www.portland.gov/ppd

Type III Decision Appeal Form

LU Number: 23-111784 CU AD

FOR INTAKE, STAFF USE ONLY

Date/Time Received 8/27/24 @4:09pm

Received By Mary Butenschoen

Appeal Deadline Date 8/28/24

☐ **Entered in Appeal Log** _____

☐ **Notice to Auditor** _____

☐ **Notice to Dev. Review** _____

☒ **Action Attached** Statement & a copy of the HO Decision

Fee Amount $6,079

☐ Y ☒ N **Fee Waived**

Bill # 5339587

☐ Y ☒ N **Unincorporated MC**

APPELLANT: Complete all sections below. Please print legibly.

PROPOSAL SITE ADDRESS SE Water between Salmon and Mail **DEADLINE OF APPEAL** 8/28/24

Name MusicPortland

Address 2332 NE Wasco St **City** Portland **State/Zip Code** 97232

Day Phone _____ **Email** info@MusicPortland.com **Fax** _____

Interest in proposal (applicant, neighbor, etc.) Economic and Social Impact Stakeholder

Identify the specific approval criteria at the source of the appeal:

Zoning Code Section 33. 815 . 215

Zoning Code Section 33. 805 . 040

Zoning Code Section 33. _____ . _____

Zoning Code Section 33. _____ . _____

Describe how the proposal does or does not meet the specific approval criteria identified above or how the City erred procedurally:

See attached page

Appellant's Name Jamie Dunphy, Board Member and authorized rep, MusicPortland ■

I acknowledge this typed name as my signature

FILE THE APPEAL - Submit the following:

- ■ This completed appeal form
- ■ A copy of the Type III Decision being appealed
- ■ An appeal fee as follows:
  - ■ Appeal fee as stated in the Decision, payable to City of Portland
  - ❑ Fee waiver for Civic Life Recognized Organizations approved (see instructions under Appeals Fees A on back)
  - ❑ Fee waiver request letter for low income individual is signed and attached
  - ❑ Fee waiver request letter for Unincorporated Multnomah County recognized organizations is signed and attached

Email this application and supporting documents to: LandUseIntake@portlandoregon.gov

To file the appeal, this completed application form and any supporting documentation must be emailed to LandUseIntake@portlandoregon.gov and to the planner listed on the first page of the Decision. To be valid, the City must receive the appeal by 4:30 p.m. on the deadline listed in the Decision. Once the completed appeal application form is received, a Land Use Services Technician will contact you with instructions on how to pay the fee.

The Portland City Council will hold a hearing on this appeal. The land use review applicant, those who testified and everyone who received notice of the initial hearing will receive notice of the appeal hearing date.

Information about the appeal hearing procedure and fee waivers is on the back of this form.

Type III Appeal Hearing Procedure

A Type III Decision may be appealed only by the applicant, the owner, or those who have testified in writing or orally at the hearing, provided that the testimony was directed to a specific approval criterion, or procedural error made. It must be filed with the accompanying fee by the deadline listed in the decision. The appeal request must be submitted on the Type III Appeal Form provided by the City and it must include a statement indicating which of the applicable approval criteria the decision violated (33.730.030) or what procedural errors were made. If the decision was to deny the proposal, the appeal must use the same form and address how the proposal meets all the approval criteria. There is no local Type III Appeal for cases in unincorporated Multnomah County.

Appeal Hearings for Type III Decisions are scheduled by the City Auditor at least 21 days after the appeal is filed and the public notice of the appeal has been mailed.

Appellants should be prepared to make a presentation to the City Council at the hearing. In addition, all interested persons will be able to testify orally, or in writing. The City Council may choose to limit the length of the testimony. Prior to the appeal hearing, the City Council will receive the written case record, including the appeal statement. The City Council may adopt, modify, or overturn the decision of the review body based on the information presented at the hearing or in the case record.

Appeal Fees

In order for an appeal to be valid, it must be submitted prior to the appeal deadline as stated in the decision and it must be accompanied by the required appeal fee or an approved fee waiver. The fee to appeal a decision is one-half of the original Portland Permitting & Development Land Use Services application fee. The fee amount is listed in the decision. The fee may be waived as follows:

Fee Waivers (33.750.050)

The director may waive required fees for Office of Community & Civic Life Recognized Organizations and for low-income applicants when certain requirements are met. The decision of the director is final.

A. Office of Community & Civic Life Recognized Organizations Fee Waiver

Neighborhood or business organizations recognized by the City of Portland Office of Comunity & Civic Life or Multnomah County are eligible to apply for an appeal fee waiver if they meet certain meeting and voting requirements.

These requirements are listed in the Type III Appeal Fee Waiver Request for Organizations form and instruction sheet available from the Development Services Center, 1st floor, 1900 SW 4th, Portland, OR 97201. Recognized organizations must complete the Type III Appeal Fee Waiver Request for Organizations form and submit it prior to the appeal deadline to be considered for a fee waiver.

B. Low Income Fee Waiver

The appeal fee may be waived for an individual who is an applicant in a land use review for their personal residence, in which they have an ownership interest, and the individual is appealing the decision of their land use review application. In addition, the appeal fee may be waived for an individual residing in a dwelling unit, for at least 60 days, that is located within the required notification area. Low income individuals requesting a fee waiver will be required to certify their annual gross income and household size. The appeal fee will only be waived for households with a gross annual income of less than 50 percent of the area median income as established and adjusted for household size by the federal Department of Housing and Urban Development (HUD). All financial information submitted to request a fee waiver is confidential. Fee waiver requests must be approved prior to appeal deadline to be considered for a fee waiver.

NOTICE OF APPEAL

City File Number: LU 23-111784

Appellant: MusicPortland
2332 NE Wasco Street
Portland, OR 97232

Legal Representative: Carrie Richter
Bateman Seidel
1000 SW Broadway #1910
Portland, OR 97205
503-972-9920
crichter@batemanseidel.com

Statement of Standing: MusicPortland is a nonprofit organization providing a voice for Portland's independent music industry, which currently provides over 20,000 jobs, nearly $1 billion in labor income, and over $4 billion in local economic activity. MusicPortland representatives testified both orally and in writing during the hearings officer's review.

Statement of which sections of the Zoning Code the decision violates includes, but may not be limited to:

1) ZC 33.815.215(A)(3) –
    a. Unpredictable and lengthy train crossings will interfere with the transportation demands created by 3,500 concert attendees needing to access transit, parking and rideshare options.
    b. This transportation system adequacy criterion requires evaluation of any transportation impacts and mitigation, particularly off-site mitigation, and must extend beyond general PBOT policies and standards that would otherwise apply to uses permitted outright.
    c. Blanket deferral to PBOT analysis is inadequate where it does not respond to expert transportation engineer testimony identifying inadequacies in the analysis.
2) ZC 33.815.215(B)-
    a. Compatibility in massing and lot coverage alone does not convey the Central Eastside industrial design character. What distinguishes this industrial character is a smooth stucco finish often with highly stylized murals or windows. A "modern" design," whatever that is and angled roof lines is not consistent with any of the surrounding structures.
3) ZC 33.815.215(C)-
    a. By its plain language, this criterion is focused on "any impacts that cannot be mitigated." This open-ended "any" language is not constrained in any respect and most certainly can and should consider economic and social impacts following from this use. Allowing a use that will introduce a scourge of anticompetitive operations that will injure artists, fans, small promoters and venue operators that will cause real and tangible harm.
    b. The "use" in this case is not just any event venue but is a use that has been designed and will be constructed through ongoing public subsidy to meet and further Live Nation's monopolistic business model. The expenditure of individual taxpayer dollars in this effort demands a greater showing of public benefit than might be required of

private development. This criterion confers on the Council discretion to interpret and apply the public benefit test more broadly or more rigorously on a case-by-case basis as the facts may dictate.

c. The comparator called for in this criterion is not whether the public benefits of this use outweigh externalities resulting from the property in its vacant and unused state. All of the public benefits identified by the applicant as contributing to Central City are entertainment and leisure-focus objectives that do not further any of the objectives for an industrial zone.

4) ZC 33.805.040(A)-
   a. Allowing trucks to back across SE Water Avenue and park in SE Main Street will block and prevent all "other transportation functions" and compromise the safety of pedestrians, bicycle and vehicles. No conditions of approval mandate the use of flaggers. Any other preventive measures such as signage will likely prove insufficient because drivers in this area are, according to the applicant's TIA, "inattentive."
   b. The suggestion that "the street would not have the appearance of a loading area when not in use" is belied by uncontroverted testimony that this loading area would nearly always be in use.
   c. Ecoroofs are required because they provide water quality, climate and wildlife objectives. Those objectives are not better met by street trees and roof canopy planters making the site more green than it is today or more green than surrounding development. This finding is not only non-responsive to the language of the standard is particularly problematic since staff found that a revised roof design would accommodate greater ecoroof coverage.
5) ZC 33.805.040(B)-
   a. The desired character of the area is set by the Buckman Neighborhood Plan policies, among other things. Plan Objective 5.10 expressly prohibits truck loading that blocks streets.

Appeal fee is enclosed.

Portland City Auditor
Hearings Office

HearingsOfficeClerks@PortlandOregon.gov

503-823-7307

DECISION OF THE HEARINGS OFFICER

I. GENERAL INFORMATION

File Number: **LU 23-111784 CU AD (Hearings Office # 4240010)**

Applicant's Representative: Suzannah Stanley Mackenzie
1515 SE Water Ave., Ste. 100
Portland OR 97214
(971) 346-3808
sstanley@mcknze.com

Applicant: Johnathan Malsin
Beam Development
1001 SE Water Ave., Ste. 400
Portland, OR 97214

Property Owner's Agent: Paul Gagliardi
PDC dba Prosper Portland
222 NW 5th Ave.
Portland, OR 97209

Property Owner: PDC dba Prosper Portland
220 NW 2nd Ave. #200
Portland, OR 97209

Hearings Officer: William Guzman

Bureau of Development Services (BDS) Staff Representative: Andrew Gulizia

Site Address: west side of SE Water Ave. between SE Salmon St. and SE Main St.

Legal Description: LOT 1 TL 3602, PARTITION PLAT 2016-7; LOT 1 TL 4305, PARTITION PLAT 2016-8; LOT 1 TL 1705, PARTITION PLAT 2016-

Tax Account Number: R649670250, R649670290, R649670330

State ID Number: 1S1E03AD 03602, 1S1E03AD 04305, 1S1E03AD 01705

Quarter Section: 3130

Neighborhood: Buckman, contact John Rose or Josh Baker at buckmanlandusepdx@gmail.com

Business District: Central Eastside Industrial Council, contact ceic@ceic.cc.

District Coalition: Southeast Uplift, contact at operations@seuplift.org

Plan District: Central City (Central Eastside Subdistrict)

Zoning: IG1 – General Industrial 1

Land Use Review: Type III, CU AD Conditional Use Review and Adjustment Review

Public Hearing: The hearing was opened at 1:01 pm on July 10, 2024, via the Zoom platform and ended at 3:51 pm. The record was held opened until 4:30 p.m. Jully 17, 2024 for new evidence, 4:30 p.m. July 24, 2024 for Rebuttal Response to new evidence and until 4:30 p.m. July 31, 2024 for Applicant final argument/rebuttal. The record was closed on July 31, 2024.

Testified at the Hearing:

Andrew Gulizia
Damien Hall
Michael Pina
Carolyne Holcomb
Patrick Fleming
Preston Greene
Jaime Dunphy
Marshall Runkel
Tom Lipton
Bob Sallinger
Logan Vickery
Sheena Taylor
Joseph Perez

Initial Proposal:
At the time of the Hearing the applicant proposed to construct a new, 62,000-square-foot building on this site to be used as a concert venue with 1,280 seats and a maximum spectator capacity of 3,500. The applicant requests Conditional Use Review approval for a new Major Event Entertainment use in the IG1 zone. Type III Conditional Use Review is required by Zoning Code Sections 33.140.100.C and 33.815.040.A.1. The applicant also requests approval of two Adjustments to Zoning Code requirements for this project:

• To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c).

• To reduce the amount of ecoroof area required (Zoning Code Section 33.510.243.B.1).

Relevant Approval Criteria:
To be approved, this proposal must comply with the approval criteria of Title 33, the Portland Zoning Code. The applicable approval criteria are:

• Zoning Code Section 33.815.215.A-D (Conditional Use Review); and
• Zoning Code Section 33.805.040.A-F (Adjustment Review).

II. ANALYSIS

The Record
The record in this matter includes all Exhibits from the Planner's file marked A – G (no F Exhibits) and any Hearings Office Exhibits received marked Exhibits H-1 through H-54. Applicant objects to Exhibit H-41 as being submitted during the period to respond to new evidence but not being responsive to any submission during the initial open record period. The Hearings Officer finds that the transportation-related issues raised arguably touch upon or expand upon Exhibit 35 (which was submitted during the open record period) and can be considered timely and responsive. The record also includes all testimony received during the Hearing held on July 10, 2024; an audio recording of this Hearing is available online. Note that some submissions included links to outside websites or files. These are not part of the record and the information on these links was not viewed by the Hearings Officer.

Changes to Proposal, Notice of Hearing, and Motion(s) Continuance
Title 33.730.030 governs Type III Procedures stating: "A Type III procedure requires a public hearing before an assigned review body." Subsections B, E, and F govern neighborhood contact and notice requirements, notice of a request, and decision by review body if site is in City of Portland.

Some comments suggest that notice was inadequate or that a continuance is necessary given some testimony at the hearing. For example, Exhibit H33 suggests the following:

> "At the hearing, another regulatory mechanism for enabling the applicant to use the public right-of-way for loading was suggested. If another method is being proposed, the Hearings [Officer] must reopen the record to allow the correct regulatory mechanism to be evaluated by all parties."

In Exhibit H39 the author argues:

> "[T]he city did the bare minimum on outreach required by law and failed to reach out to either groups involved in the Central City Plan or the Green Roof Mandate. While this may not be required, the city is well aware of groups that have vested interest in this issue. This project is too big and too high profile for the city to rely on minimum outreach requirements."

The Hearings Officer finds that the City provided legally sufficient notice of the Applicant's proposal through the notice of Hearing to satisfy Title 33 based on the City's testimony and the following statement in the Staff Report: "Signs notifying neighbors of the public hearing were posted on June 6, 2024 (Exhibit D-3) and a 'Notice of Public Hearing' was mailed to neighbors on June 20, 2024 (Exhibits D-4 and D-5)."

Regarding changes that require a continuance of a Hearing, the Administrative Rules governing City of Portland land use Hearings include the following instruction in ADM 9.02.K set forth below for easy reference (Changes to a Land Use Application or Applicable Criteria):

> 1. The Hearings Officer may consider a substantial change to a land use application or applicable criteria, made after the Bureau issues the staff report, only if the applicant submits a signed waiver of the 120-day deadline for final action on the application.
>
> 2. If an application is amended and the hearing notice no longer accurately describes the amended application, the Bureau must issue a new hearing notice.

The Hearings Officer finds that the testimony and suggested amendments do not rise to a substantial change in the application, the applicable criteria are the same as prior to the Hearing, and the hearing notice still accurately describes the proposal. The Hearings Officer denies an additional open record period and denies a continuance of the Hearing.

City Bureau Responses

The City Bureaus were invited to submit a response or objection to the applicant's proposal and request for adjustments. A "Request for Response" was sent to City agencies May 29, 2024 (Exhibit D-1). The following City reviewers responded:

- The Bureau of Environmental Services (BES) evaluated the approval criterion related to sanitary sewer service and stormwater disposal. The response is referenced in the findings for Zoning Code Section 33.815.215.A.4, below. (Exhibit E-1)

- PBOT evaluated the approval criteria related to the transportation system. The response is referenced in the findings for Zoning Code Section 33.815.215.A.1-3, below. (Exhibit E-2)

- The Water Bureau responded with no concerns. (Exhibit E-3)

- The Fire Bureau responded with information on building permit requirements and no objections to approval. (Exhibit E-4)

- The Police Bureau responded that police can adequately serve the proposed development. (Exhibit E-5)

- The Site Development Review Section of the Bureau of Development Services (BDS) responded with information on building permit requirements and no objections to approval. (Exhibit E-6)
- The Life Safety Review Section of BDS responded with information on building permit requirements and no objections to approval. (Exhibit E-7)

- The Urban Forestry Division of the Parks Bureau responded with information on street tree requirements and no objections to the land use review proposal. (Exhibit E-8)

The Opposition and Decision

City Council drafts Title 33 and provided the following direction to the Hearings Officer deciding this Title 33 land use application. Title 33.730.030.F.3: "The review body may adopt the Director of BDS's report and recommendation, modify it, or reject it based on information presented at the hearing and in the record."

The City's recommendation in the Staff Report (Exhibit H-5), based in part on the lack of opposition from the City bureaus, is to approve the proposal with adjustments granted and the inclusion of several conditions. The Staff Report is modified by Exhibit H-6's suggested condition of approval (PBOT Memo). The Applicant agrees with the findings and recommendation of approval contained in the Staff Report and Recommendation and is also amenable to imposition of the revised conditions of approval in the Staff Memo. The City Bureaus have no objections and only suggested conditions.

After independently reviewing the record and the applicable approval criteria the Hearings Officer adopts the Staff Report and its recommendation of approval. The Hearings Officer finds the City's analysis thorough and persuasive.

Therefore, this decision is going to focus on the opposition to the proposal to document the issues and explain why the Hearings Officer ultimately ruled to approve the proposal despite issues raised by the public. In full disclosure and transparency, throughout this decision the Hearings Officer liberally utilizes text from sources in the record deemed persuasive and adopts the text either through copy/paste feature or by reference.

Bike Parking

Initially, Applicant sought a third Adjustment request to Zoning Code Section 33.266.200.B.1 to reduce the minimum number of on-site, short-term bike parking spaces from 32 to zero. The applicant had proposed to construct bike parking in the public right-of-way adjacent to the site as justification for this Adjustment. After discussion with the Portland Bureau of Transportation (PBOT), the applicant decided to withdraw this Adjustment request (Exhibit G-3).

At the time of the Hearing and as described in the Staff Report, the proposal is for the applicant to pay into PBOT's bike parking fund when the building permit is issued, as required by Zoning Code Section 33.266.210.E.1.b when there is insufficient space on-site to provide the required short-term bike parking. PBOT would then construct and maintain bike parking in

the public right-of-way. The public is often critical of payment of funds in lieu of strictly adhering to development standards. This criticism must be lodged with City Council who are the elected officials with authority to legislate the opportunity to choose a payment into the fund. It would be an overreach by the quasi-judicial Hearings Officer to unilaterally foreclose this avenue to approval.

In Exhibit H19 Bike Loud (through Aaron Kuehn, Board Chair of BikeLoudPDX) raises a couple concerns regarding construction interruptions and the width of Salmon street suggesting the following recommendations:

> "Bike racks are installed diagonally to reduce handlebar conflicts.
> Security, lighting, and covering for short-term bicycle parking.
> Electrical outlets for e-bike charging, and larger spaces for cargo bike parking.
> All bicycle parking is ready for the very first event at this concert venue.
> Bike racks could be installed on concrete panels with tree wells in between."

PBOT's representative responded to these recommendations and concerns in an email included in the record marked Exhibit H34. This exhibit also includes Bike Loud's continued objection considering their concerns unresolved.

The Hearings Officer notes the following from PBOT's submission included in the Staff Report (Exhibit H5 at page 8):

> "In accordance with 17.88.020, the proposed project will be required to dedicate and reconstruct the abutting frontages to City standards by providing a 12-ft wide pedestrian corridor along SE Salmon and SE Main streets, and a 15-ft wide corridor along SE Water Street. These improvements will be reviewed through a Public Works permit, which is to receive 30 percent concept approval and bond payment prior to issuance of the building permit. Additional frontage improvements such as street lighting, striped pedestrian crossings, curb extensions, signage, and preparation of ROW bike parking will also be evaluated at time of Public Works permit review."

In Exhibit H34 PBOT confirms the bike racks get installed diagonally: "By paying into the bike fund, PBOT will install a bank of bike corals along the site's SE Salmon frontage. Standard bike coral racks are already installed diagonally to reduce handlebar conflicts[.]"

In Exhibit H34 PBOT responds:

> "The applicant remains responsible for monitoring bicycle usage and taking additional TDM measures to mitigate the demand. Creating a "Woonerf" or other plaza treatment could be a possibility, but that would be reviewed as either Capitol Improvement Project (CIP) or future partnership with the venue; not associated with this particular Conditional Use development."

Regarding the timing of the installation the Staff Report includes PBOT's goal: "As noted above, all required frontage improvements, payment into the bike fund, and implementation of TDM strategies will be in place by the time the development is complete."

Lastly, the Hearings Officer approves of the PBOT suggested condition agreed to by the Applicant:

> "The applicant must assess the bike parking capacity on an annual basis for the first 3 years after the concert venue begins operation and then every other year after that ending with year 11. That assessment must include bike count averages for events throughout the year. The applicant must send their assessment to PBOT Development Review and PBOT Active Transportation and Safety. If demand consistently exceeds the provided bike parking, the applicant must work with PBOT on remedies, including but not limited to adding additional bike racks or a contract for offering temporary bike racks during events."

In Bike Loud's continued objection they suggest the following: "[We] are not satisfied that this project will improve an already dangerous streetscape or address bicycle parking concerns." The Applicant is not responsible for preexisting conditions in the area that are already causing a dangerous streetscape and all of the bicycle parking concerns were addressed. The Hearings Officer agrees that there can always be more that is done to improve conditions on the ground for bike rider safety but there is only so much that can be accomplished through a land use application and only so much cost for improvements that can be imposed on the developer (example, public right of way improvements and dedications). The Hearings Officer's review of the applicable approval criteria and the proposed conditions lead to the conclusion that the applicable approval criteria have been met.

Train Crossings

The Hearings Officer finds that there are train tracks and crossings in the area of the proposed development. Some of the testimony at the Hearing included concerns about individuals who attend music events climbing over stopped trains to cross the tracks. Additional, written testimony also raised train crossing concerns. For example, in Exhibit H26 a local business owner raised a concern with traffic impacts and safety:

> "What considerations has the proposed development taken in regarding traffic flow and grid lock with the train? As a business owner, I have witnessed and experienced the effects of the train being stopped for up to 40 minutes. Imagine 3,500 people trying to get to a concert and the train is stopped or a band is trying to get to a venue to set up for sound check. I imagine this causing stress and chaos on both ends. The traffic that gets backed up on to I-5 is already a fiasco."

In Exhibit H32 the opposition includes the following written testimony for consideration:

> "Freight trains go thru this area every day, sometimes at slow speed and sometimes faster. They often stop and remain stationary for an indeterminate amount of time. If a concert gets out at 11pm and the train is sitting there for 30 minutes, do you expect people not to cross the tracks to get to their cars? What considerations has the proposed development taken in regarding traffic flow and grid lock with the train? I have personally experienced the effects of the train being stopped for up to 40 minutes. Imagine 3,500 people trying to get to a concert or a band is trying to get to a venue to set up for sound check and the train is stopped. I imagine this causing stress and chaos on both ends. BEAM Development and Colas Development Group, as city planners, must take into account that the train tracks are a major point of concern with this location. Expecting 3500 people to fill the sidewalks and unsafe streets, while passing over live freight train tracks is irresponsible at best."

In Exhibit H33 the following is submitted for consideration:

> "It is impossible for a major entertainment use to meet this important criterion at this site because it is an inherently unsafe place to attract significant new pedestrian [traffic] because of its proximity to train [traffic] that has killed two pedestrians and injured another in the past five years according to the [Staff] Report and Recommendation to the Hearings [Officer].
>
> * * *
>
> During the periods when trains are stopped at crossings, pedestrians regularly choose to ignore safety barriers designed to stop cars and climb over stopped trains. There are no pedestrian crossing protections at any of the five crossings near the site, nor are any new pedestrian safety protections proposed."

Exhibit H35 analyzes the issue at pages 3 -4 concluding the following:

> "Taken together, this analysis indicates that, at a very minimum, 1,000 of the concert attendees, about one-third of the total, will need to cross the tracks on foot to arrive at an event. Unpredictable train crossings that "average 10 minutes"2 will create an incentive for excited attendees to make poor choices, risking their lives, to make it to an event on time. After an event, poor visibility coupled with judgment-impaired attendees crossing train tracks is nothing more than a recipe for disaster.
> Portland Zoning Code (ZC) 33.815.215(A)(3) requires a finding that "the transportation system is capable of supporting the proposed use in addition to the existing uses in the area" including "safety," "impacts on pedestrian circulation." This provision goes on to explain that: "a finding of failure in one or more factors may be acceptable if the failure is not a result of the proposed

> development, and any additional impacts on the system from the proposed development are mitigated."
>
> Locating a major entertainment venue one block from the City's most heavily used train tracks, where lengthy freight trains barrel through in excess of 15 miles per hour, creates pedestrian safety and circulation failures. The applicant identified no mitigation for this significant injection of pedestrian traffic demanding pedestrian rail crossings far in excess of anything that exists today."

PBOT's July 19, 2024 Memo Exhibit H40 includes the following guidance regarding train crossings in the area of the site: "The subject site is does not abut the railroad Right-of-Way, therefore improvements such as an improved crossing is not required of the applicant or project." This is a legally accurate assessment of the situation.

Additionally, the Applicant addresses the opposition in Exhibits H52 and H54.

> "The standard protective devices at rail crossings in Oregon are installed and maintained by the railroad (not the Applicant) per OAR 741-110-0020 to 0090 and 741-115-0010 to 0080."
>
> "The approval standards do not require projecting and accounting for impairment of individual users of the transportation system." The Traffic Impact Study results conclude:
>
> "[T]he proposed use is not expected to result in any material change to the frequency of accidents."

The Hearings Officer finds that the rail crossings and protective devices are not the responsibility of the Applicant to improve or maintain. The Hearings Officer finds that impaired or otherwise poor judgment of individuals (whether concert attendees or not) to ignore the safety devices is not the responsibility of the Applicant. There is no guarantee that the worst case scenario predicted by the opposition won't occur (a train related death of a music event attendee). This finding merely relies on the best evidence in the record and the limited scope of what can be accomplished through a Type III land use review, that the proposal will not increase the risk of a train related death and limits the scope of review to the proposal and the applicable approval criteria. The safety criteria related to the proposal is satisfied.

Construction Disruption

In Exhibit H26 the project opponent raises the following concern: "The construction alone will be a major disruption to my business. * * * I would like to know how the city plans to address parking for the community and business owners during construction and thereafter since it's leveraging itself as building more job opportunities." There is no applicable approval criteria that concerns itself, at this stage of the approval process, with construction noise, delays, impacts. Project opponents may reach out to the City Planner to provide recommendations

about the best way to communicate these concerns as the permit process unfolds and timelines for construction materialize.

Transportation System Impacts

Title 33.815.215 requires analysis of the proposed use to ensure that transportation services are or will be sufficient to serve the use. PBOT submitted analysis into the record (Exhibit E-2) incorporated into the Staff Report finding that subsections A.1, A.2, and A.3 are satisfied. See Exhibit H5 pages 4 – 9. PBOT's analysis relied on the City's Transportation System Plan's (TSP) classification of the abutting streets, the Applicant's Transportation Impact Study (Exhibit A-10), concluding that although there were no objections, and recommended conditions. The Hearings Officer finds that the TIS is expert testimony whereas the opposition relied on anecdotal inferences that are less persuasive.

Opponents of the proposal included traffic related issues (examples in the record in Exhibits H32 and H35) some of which is included below for easy reference:

> "I used to work in the area and can confirm that there are more permits issued than there are actual parking spots to match. It's naive to expect this venue not to be impacted by that, given artists/buses/trucks arrive on site early in the morning and stay for at least a day if not more, depending on the number of shows booked. Fans also tend to arrive early out of excitement to see their favorite artist, which will certainly impact parking in the surrounding streets. Employees in the area already struggle to find parking for the businesses already established. Add on top of that the customers shopping at said businesses, I just do not see how it is even remotely possible for the applicant to believe they will not have any affect on daytime parking in the area. Your assessment that 915 parking spots will be needed for a sold out weekday/weekend show of 3500 capacity is misguided. What is that based on?" Exhibit H32

Applicant responds, arguing that "project opponents have provided no evidence (expert or otherwise) of the inadequacy of public services to support the proposed venue." The Hearings Officer finds that compliance with the applicable approval standard is demonstrated by substantial expert evidence in the record. PBOT provides a detailed written response to this criterion [Staff Report Exhibit E-2; see also, Exhibit 16, at 2]. As expressly determined by PBOT and as adopted by the Staff Report, PBOT found that the proposed conditional use project is consistent with the surrounding street designations of the Transportation Element of the Comprehensive Plan and TSP classifications" [Id.; see also, Exhibit 5, at 4].

Further, the Applicant's Traffic Impact Study ("TIS") [Staff Report Exhibit A-10], contains a detailed discussion of how the proposed use is appropriate for the site's traffic street designations identified in Table 1 of the TIS [Staff Report Exhibit A-10, at 57]. The design classifications (SE Salmon Street and SE Main Street are Local Streets, and SE Water Avenue is a Neighborhood Main Street) are also suited for the proposed land use [Id.; see also, Staff Report Exhibit A-12, at 5].

The Applicant further addresses each evaluation factor and responds to oppositional testimony raised during the course of the proceedings in Exhibit H54 that the Hearings Officer adopts and incorporates herein by reference.

The Hearings Officer finds that adjacent and nearby streets will continue to fully accommodate truck movements and all modes of transportation. In addition, the Applicant is required to improve the street frontages of the proposed venue to feature wider sidewalk corridors on SE Main Street and SE Salmon Street, consistent with their local street designations in a Pedestrian District and along SE Water Avenue, consistent with its Major City Walkway and Neighborhood Main Street designations. Such improvements will be reviewed through a Public Works Permit [Exhibit 5 at 8]. With conditions, the proposal meets the applicable approval criteria related to transportation impacts.

Truck Loading Adjustment

Applicant seeks the following adjustment, "To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c). The applicant proposes to create 2 truck loading spaces which are primarily in the public right-of-way adjacent to the site."

Zoning Code Section 33.266.310.A states the purpose of the on-site loading space requirement:

> "A minimum number of loading spaces are required to ensure adequate areas for loading for larger uses and developments. These regulations ensure that the appearance of loading areas will be consistent with that of parking areas. The regulations ensure that access to and from loading facilities will not have a negative effect on the traffic safety or other transportation functions of the abutting right-of-way."

The applicant proposes to use the SE Main Street right-of-way adjacent to the site for truck loading when needed, and this Adjustment is necessary because the Zoning Code requires loading areas that are on-site rather than in the right-of-way. However, the proposal would still accommodate two large trucks simultaneously, as required by Zoning Code Section 33.266.310.C.2.c, and the loading area would be as large as would be required by Zoning Code Section 33.266.310.D.1. The street would not have the appearance of a loading area or parking area when not in use for truck loading, and using the public street for loading rather than creating a dedicated loading area on-site reduces visual impacts by reducing the amount of pavement area required for the proposal. PBOT evaluated this proposal and found that using SE Main Street for truck loading in this case would not have a negative effect on traffic safety or other transportation functions in the right-of-way, as long as the applicant obtains and maintains continuous compliance with an Angle Loading Permit (Exhibit E-2). For these reasons, and with the condition of approval recommended by PBOT to require the Angle Loading Permit, staff finds the Adjustment request equally meets the purpose of the standard.

The appearance of the loading areas will be consistent with that of required parking areas. Here, there are no required on-site parking areas, and the proposed loading areas will be visually standard loading areas consistent with required setbacks, and indistinguishable when trucks are not present from other loading areas. Similarly, the Staff Report expressly found that the street would not have the appearance of a loading area or parking area when not in use for truck loading, and using the public street for loading rather than creating a dedicated loading area on-site reduces visual impacts by reducing the amount of pavement area required for the proposal. Exhibit 5, at 12. Thus, the purpose of ensuring that "appearance of loading areas will be consistent with that of parking areas" is equally or better met by the proposed adjustment.

The Applicant has provided a detailed analysis of loading-related truck movements and traffic control plans to ensure traffic safety and continuous transportation functionality while trucks are loading and accessing the loading area. The TIS includes a traffic control plan illustrating how vehicle, bike, and pedestrian travel will be maintained on SE Main Street during the time that trucks are loading. The final measures and improvements are subject to the public works and angle loading permitting process, but the Applicant has presented feasible plans that achieve the following traffic safety measures:

- SE Main Street remaining accessible to two-way vehicular and bicycle traffic at all times. Even with the largest trucks loading, no less than 21.6 feet of the street will remain usable for vehicles. 20 feet is the standard minimum width to accommodate two-way traffic.

- Full signage and certified flagger support for truck movements to access the loading area.

- Swinging gate that closes the sidewalk and landscape area, directing pedestrians to use the sidewalk on the other side of SE Main Street when trucks are present in the loading area.

Further, construction of the venue would result in improvements to adjacent rights-of-way resulting in substantial improvement for transportation functionality of the adjacent rights-of-way. The improvements are listed at Table 21 of the TIS and benefit all modes of transportation [Staff Report Exhibit A-10, at 55-56]. Currently, the abutting street improvements do not meet City standards and result in conflicts between modes. Exhibit 48, at pages 2 and 3, show a pick-up truck of a local services provider navigating the current illegal angle parking on SE Salmon and lack of sidewalk improvements resulting in pedestrians in the vehicular travelway.

City staff evaluated and the TIS and concurred with Applicant, finding that the loading area adjustment in this case would not have a negative effect on traffic safety or other transportation functions in the right-of-way, as long as the Applicant obtains and maintains continuous compliance with the appropriate angle loading permit determined by PBOT [Staff Report Exhibit E-2; Exhibit 16]. The Hearings Officer finds that the adjustment criteria are met.

Ecoroof Adjustments

Applicant seeks an adjustment allowing for a much smaller eco room than that required by the applicable City Code. Opposition testimony is located in Exhibits H18, H30, H39. For easy reference some of that opposition testimony is included below:

> "The proposal does meet the stormwater requirements set by the city and has integrated planters and eco 'net' using stainless cables for plants to grow up the side of the building; these are an effort to mitigate the lack of eco roof coverage. However, the proposal does not quantify the effects of these alternatives relative to the eco roof requirement. The eco roof requirement is not near to being met and it has not been proven that these mitigation efforts will make up an equal effect of the remaining 85% of the ecoroof requirement. These mitigations do not effectively meet the intention of the eco roof requirement and this proposal should be rejected." Exhibit H18
>
> "It is clear that performing arts, concert/theater style buildings and even convention centers can be and have been built with ecoroofs at no sacrifice to the interior uses. We encourage the applicant to consider ecoroofing the entire building including the 25% sloped roof." Exhibit H30.
>
> "The proposed strategies will not provide the myriad benefits provided by a large ecoroof and therefore does not qualify for an adjustment. Beyond compliance with the SWMM, proponents have failed to substantively address any of the benefits that ecoroofs provide. City Council was explicitly trying to achieve more than simply managing stormwater when it put the ecoroof mandate in place. This proposal fails to achieve those multiple benefits. Additionally, proponents seem to rely on cost and feasibility as a basis for proposing alternative strategies. In fact, as expert testimony from City of Portland ecoroof expert, Tom Liptan (retired) indicated, an ecoroof is feasible with the proposed design." Exhibit H39.

In Exhibit H32 the project proponent asks the following question: "City code requires ecoroof percentage and the fact that the applicant is already looking to decrease that amount begs the question: if we just allow an adjustment to the requirement, then what is the point of having a requirement?" The Hearings Officer appreciates this comment but City Council enacted Zoning Code Section 33.805.040.A-F explicitly allowing adjustments when deemed appropriate (when the adjustment can meet the approval criteria). Therefore, it would be an abuse of authority to disregard the approval criteria allowing for an adjustment sought by the Applicant.

The Applicant has the burden of demonstrating that the proposed adjustment equally or better meets the purposes of the ecoroof requirements. Since the hearing, presumably in response to some of the concerns raised by the opposition heard at the Hearing, the Applicant has modified the ecoroof plans in a manner that meets the crtieria. Specifically, the applicant proposes to increase the square footage of ecoroof provided, going from 2,100 to 4,670

square feet [Exhibit 36, at 39] The applicant has also provided additional analysis of the roof design and area required to meet the ecoroof requirement. The outcome of these modifications has been an ecoroof proposal that meets 43% (i.e. 4,670 sq ft of the required 10,872 sq ft) of the unadjusted ecoroof standards, where it previously met only 14% of the unadjusted ecoroof standards (i.e. 2,100 sq ft of 14,617 sq feet).

Further, without this adjustment, construction of an ecoroof would be cost-prohibitive totaling up to nearly $4.2 million to increase the foundation piles and upsize the roof trusses and structural steel elements as found to be necessary to support full ecoroof compliance by DCI Engineers [Exhibit 36] and as demonstrated in the cost analysis prepared by Colas Construction [Exhibit 38]. Therefore, the proposed adjustment meets the overall purpose of the eco-roof requirement by maximizing the amount of ecoroof that can be provided without over-engineering the building so as to be economically infeasible.

Besides the 4,670 square feet of ecoroof area, Applicant also proposes the following: (1) 1,500-square-foot stormwater planter on the south side of the building that exceeds the stormwater management requirements for ecoroof area (Exhibit 36, Floor Plan – Roof; Exhibit 36, Planting Plan); (2) Stainless steel cables would allow plants to climb toward the roof (Staff Report Exhibit C-4); and (3) Planting of new street trees adjacent to the site (Staff Report Exhibits C-1 and E-8).

With these features, the site would be much greener than it is currently and would appear greener than is typical for sites in the industrial area. While most of the new greenery does not qualify as ecoroof area under PCC 33.510.243.B.2, all the new plants and trees will reduce stormwater runoff, improve air quality, mitigate heat island impacts, and provide habitat for birds and insects. The stormwater management requirements for the site will be fully met (Staff Report Exhibit E-1), and the landscaping plan for the ecoroofs and the other planters includes several plant varieties known to attract pollinators (Staff Report Exhibit A-8, at 14-15); thus, the proposed ecoroof design equally meets these goals. See also, Exhibit 36, Roof Floor Plan; and Exhibit 36, Planting Plan. The planters would utilize a geocell grid to prevent soil erosion, and that plantings would be denser than typical. Staff Report Exhibit A-12, at 16. The Applicant also previously submitted an operations and maintenance plan that would promote the long-term success of the planters (Staff Report Exhibit A-11). Again, without these green features, the lot would continue to be a vacant, un-vegetated combination of paving and gravel [Exhibit 45, at 1; Exhibit 48]. Thus, with these measures, the proposed adjustment will exceed the purpose of the eco-roof standards.

Furthermore, the roof will consist of Thermoplastic Polyolefin (TPO) roofing material for heat island reduction. See Exhibit 36, at 2. Specifically, un-planted roof areas would be white TPO roof material. As evident by Applicant's Exhibit 36, such roofing materials have highly reflective properties that effectively reflect solar radiation to reduce heat island impacts. Id. In effect, the proposed adjustment would meet the purpose of the eco-roof standards by reducing heat islands and air temperatures. For all these reasons, the Hearings Officer finds that the proposed adjustment equally meet the purposes of the ecoroof standards.

Future Tenant Concerns

The record contains significant opposition to the future tenant Live Nation. See for example Exhibits H13, H18, H23, H25, H26, H28, H29, H31, H32, H33, and H35. Exhibit H13 includes the following opposition: "This does not go with what Portland is. Portland is a grassroots community. Allowing businesses like this to come in and syphon creativity from local artists will be another dagger to the city." Another example, Exhibit H18 states in pertinent part: "Live Nation has a track record of shady business practices and a history of squeezing out the small local promoters and venue owners in other cities. Portland has a rich music culture that is run almost entirely by local promoters and artists. Allowing Live Nation to enter our city puts this culture at risk. Live Nation should not be allowed to move forward with this project." Some arguments connect this concern with the future tenant to the following approval criteria: PCC 33.815.215 C, "Public benefits of the proposed use outweigh any impacts that cannot be mitigated." See Exhibit H-33. The Hearings Officer finds that these tenant related concerns are not connected to the approval criteria for the land use proposal and cannot be considered. For comparison, the structure's appearance or impacts on the transportation system are clearly related to the proposed use of the development. The use being proposed is Major Event Entertainment, and this does not include the operator (public, private, large, or small). PCC 33.920.230. Demonstrating the point is that the application is not dependent on the proposed venue operator being the operator and should the lease end or be terminated, the owner could contract with a new venue operator. Notably, nearly all of the opposition to the future tenant also was supportive of a new music venue in Portland. The Hearings Officer rejects any opposition to the tenant's alleged business practices as applicable to the approval criteria. The "impacts" criteria in Title 33 relate to the development of a music venue in this location, not the future tenant's business practices when utilizing the music venue.

No Public Subsidy

Project opponents assert that the proposed venue is reliant on receiving a public subsidy [Exhibits 35 and 43]. The Hearings Officer finds that this assertion is not supported by the facts in the record, therefore, this assertion is incorrect and inaccurate. Accordingly, assertions that the conditional use standards be applied differently based on the existence of public subsidy need not be addressed further.

III. CONCLUSIONS

Despite significant and substantial opposition to the proposal, adjustments, and the adequacy of the conditions (contained in both the opposition testimony at the Hearing and the written submissions marked as H-Exhibits), the Hearings Officer finds the proposal meets the approval criteria. On balance, the Hearings Officer finds that, under the facts of this case, the City's and the Applicant's positions are more persuasive than the opposition testimony. The proposal and adjustments with conditions meet the approval criteria. The Hearings Officer approves the proposal, the adjustments, and the conditions hereby adopting the Staff Report as modified in the decision above and in the conditions below. The Staff Report is adopted as the decision in this matter and is attached hereto and incorporated herein by reference. No adjustments to the approvals per the approved plans, Exhibit C-1 through C-4, are permitted

unless it is deemed necessary by the City Planner given the Applicant's post-Hearing modification to the requested adjustment regarding the expanded ecoroof.

IV. DECISION

Approval of Conditional Use Review to establish a Major Event Entertainment use on this site; and

Approval of two Adjustments:

- To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c).

- To reduce the amount of ecoroof area required from 14,617 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 4,670 square feet (Zoning Code Section 33.510.243.B.1).

The approvals are per the approved plans, Exhibit C-1 through C-4, and subject to the following conditions of approval:

A. As part of the building permit application submittal, each of the required site plans and any additional drawings must reflect the information and design approved by this land use review as indicated in Exhibits C-1 through C-4. The sheets on which this information appears must be labeled, "Proposal and design as approved in Case File # LU 23-111784 CU AD."

B. Prior to issuance of a building permit for this development, the applicant must receive 30 percent public works concept approval and make any required bond payment for required frontage improvements abutting the site.

C. Prior to issuance of a building permit for this development, the applicant must obtain approval of the appropriate permit as determined by PBOT for the proposed truck loading in SE Main Street. The applicant must adhere to all the conditions and stipulations of said permit for the life of the proposed use. If any conditions are found to be in violation, the applicant may be fined and/or any applicable permits may be revoked.

D. The applicant must continually implement the transportation demand management (TDM) measures identified in the TDM plan in Exhibit A-10 that are within their control.

E. The applicant must assess the bike parking capacity on an annual basis for the first 3 years after the concert venue begins operation and then every other year after that ending with year 11. That assessment must include bike count averages for events throughout the year. The applicant must send their assessment to PBOT Development Review and PBOT Active Transportation and Safety. If demand consistently exceeds the provided bike parking, the applicant must work with PBOT on remedies, including but not limited to adding additional bike racks or a contract for offering temporary bike racks during events.

William Guzman
William Guzman, Hearings Officer

August 14, 2024
Date

Application Determined Complete:	May 23, 2024
Report to Hearings Officer:	July 1, 2024
Decision Mailed:	August 14, 2024
Last Date to Appeal:	August 28, 2024 by 4:30 p.m.
Effective Date (if no appeal):	August 29, 2024

Conditions of Approval. This project may be subject to a number of specific conditions, listed above. Compliance with the applicable conditions of approval must be documented in all related permit applications. Plans and drawings submitted during the permitting process must illustrate how applicable conditions of approval are met. Any project elements that are specifically required by conditions of approval must be shown on the plans and labeled as such.

These conditions of approval run with the land, unless modified by future land use reviews. As used in the conditions, the term “applicant” includes the applicant for this land use review, any person undertaking development pursuant to this land use review, the proprietor of the use or development approved by this land use review, and the current owner and future owners of the property subject to this land use review.

Appeal of the decision. ANY APPEAL OF THE HEARINGS OFFICER’S DECISION MUST BE E-MAILED TO LANDUSEINTAKE@PORTLANDOREGON.GOV. The appeal application form can be accessed at : Land Use Review Appeals, Land Use Review Appeal Costs and Appeal Fee Waivers | Portland.gov. If you do not have access to e-mail, please telephone (503) 865-6744 for assistance on how to submit the appeal; please allow one business day for staff to respond. **An appeal fee will be charged.**

Who can appeal: You may appeal the decision only if you wrote a letter which is received before the close of the record on hearing or if you testified at the hearing, or if you are the property owner or applicant. If you or anyone else appeals the decision of the Hearings Officer, only evidence previously presented to the Hearings Officer will be considered by the City Council.

EXHIBITS RECEIVED IN THE HEARINGS OFFICE – *SEE NEXT PAGE*
(NOT ATTACHED UNLESS INDICATED)

The exhibits in the land use case file are all assigned a letter (example A-1). The Hearings Office accepts exhibits filed online in its case management system. These exhibits are marked in the lower right hand corner that identifies the exhibit as a "Portland Hearings Office" exhibit. All of these exhibits are designated "H Exhibits" (that is, Hearings Office Exhibits). See the BDS Staff Report for a list of exhibits prior to "H."

Portland City Auditor
Hearings Office

HearingsOfficeClerks@PortlandOregon.gov
503-823-7307

4240010 H Exhibits, Orders, and Other Attachments

Number	Title	Status
Exhibit 1	Schedule Request	Accepted
Exhibit 2	Zoom Participation Instructions	Accepted
Exhibit 3	Notice Of Hearing	Accepted
Exhibit 5	STAFF REPORT **(attached)**	Accepted
Exhibit 6	STAFF MEMO	Accepted
Exhibit 7	Nick Wood Testimony	Accepted
Exhibit 8	Patrick Fleming Testimony	Accepted
Exhibit 9	STAFF PRESENTATION	Accepted
Exhibit 10	Jeff Miller Testimony	Accepted
Exhibit 11	Portland Metro Chamber (PMC) Comments	Accepted
Exhibit 12	OMSI Support Letter	Accepted
Exhibit 13	Live Nation Land Use Comments	Accepted
Exhibit 14	PBOT MEMO	Accepted
Exhibit 15	TRANSPORTATION INFORMATION	Accepted
Exhibit 16	PBOT MEMO ADDITIONAL	Accepted
Exhibit 17	Record Closing Information	Accepted
Exhibit 18	Written Testimony - Kevin Killian	Accepted
Exhibit 19	Written Testimony - Aaron Kuehn	Accepted
Exhibit 20	Applicant Presentation	Accepted
Exhibit 21	Written Testimony - Jaime Dunphy	Accepted
Exhibit 22	LU 23-11784 CU AD 14 day Extension	Accepted
Exhibit 23	Katie Bergen Testimony	Accepted
Exhibit 24	Kate Sena Testimony	Accepted
Exhibit 25	Chad Colwell Testimony	Accepted
Exhibit 26	Debra Krueger	Accepted
Exhibit 27	Carolyne Holcomb Testimony (CEIC)	Accepted
Exhibit 28	Jon Meyer Testimony	Accepted
Exhibit 29	New Evidence - Tori Johnson	Accepted
Exhibit 30	New Evidence - Tom Liptan	Accepted
Exhibit 31	New Evidence - Ronnie Carrier	Accepted
Exhibit 32	K. Jasmine Robb Testimony	Accepted
Exhibit 33	Marshall Runkel Testimony	Accepted
Exhibit 34	Kiel Johnson Testimony (email chain)	Accepted
Exhibit 35	Carrie Richter - New Evidence	Accepted
Exhibit 36	New Evidence - Damien R. Hall	Accepted
Exhibit 37	New Evidence - Damien R. Hall (2 of 3)	Accepted

	3)	
Exhibit 38	New Evidence - Damien R. Hall (3 of 3)	Accepted
Exhibit 39	New Evidence - Bob Sallinger	Accepted
Exhibit 40	PBOT Memo	Accepted
Exhibit 41	H. Lee & Associates, PLLC	Accepted
Exhibit 42	Dunphy - Response to New Evidence 2	Accepted
Exhibit 43	Runkel Updated Testimony	Accepted
Exhibit 44	D. Hall Response to New Evidence 2 of 4 (pt.1)	Accepted
Exhibit 45	D. Hall Response to New Evidence 2 of 4 (pt.2)	Accepted
Exhibit 46	D. Hall Response to New Evidence 2 of 4 (pt.3)	Accepted
Exhibit 47	D. Hall Response to New Evidence 1 of 4	Accepted
Exhibit 48	D. Hall Response to New Evidence 3 of 4 (pt.1)	Accepted
Exhibit 49	D. Hall Response to New Evidence 3 of 4 (pt. 2)	Accepted
Exhibit 50	D. Hall Response to New Evidence 3 of 4 (pt.3)	Accepted
Exhibit 51	D. Hall Response to New Evidence 3 of 4 (pt.4)	Accepted
Exhibit 52	D. Hall Response to New Evidence 4 of 4	Accepted
Exhibit 53	Runkel Further Testimony	Accepted
Exhibit 54	Applicant Final Written Argument (D. Hall)	Accepted

Carmen Rubio, Commissioner
David Kuhnhausen, Interim Director
Phone: (503) 823-7300
TTY: 711
www.portland.gov/bds

STAFF REPORT AND RECOMMENDATION TO THE HEARINGS OFFICER

CASE FILE: LU 23-111784 CU AD
(Pre-Application Conference # 22-128857 PC)
REVIEW BY: Hearings Officer (Hearings Office Case # 4240010)
WHEN: July 10, 2024, at 1:00 PM

This land use hearing will take place online using the Zoom platform. See the instructions on how to participate remotely (online or by phone) at this link: https://www.portland.gov/bds/zoning-land-use/documents/notice-land-use-hearing-lu-23-111784-cu-ad/download or contact the Hearings Office at HearingsOfficeClerks@portlandoregon.gov or 503-823-7307. Additional Hearings Office information is available at www.portland.gov/omf/hearings/land-use.

It is important to submit all evidence to the Hearings Officer. City Council will not accept additional evidence if there is an appeal of this proposal.

BUREAU OF DEVELOPMENT SERVICES STAFF: ANDREW GULIZIA / ANDREW.GULIZIA@PORTLANDOREGON.GOV

GENERAL INFORMATION

Applicant's Representative: Suzannah Stanley
Mackenzie
1515 SE Water Ave., Ste. 100
Portland OR 97214
(971) 346-3808
sstanley@mcknze.com

Applicant: Johnathan Malsin
Beam Development
1001 SE Water Ave., Ste. 400
Portland, OR 97214

Property Owner's Agent: Paul Gagliardi
PDC dba Prosper Portland
222 NW 5th Ave.
Portland, OR 97209

Property Owner: PDC dba Prosper Portland
220 NW 2nd Ave. #200
Portland, OR 97209

Site Address: west side of SE Water Ave. between SE Salmon St. and SE Main St.

Legal Description: LOT 1 TL 3602, PARTITION PLAT 2016-7; LOT 1 TL 4305, PARTITION PLAT 2016-8; LOT 1 TL 1705, PARTITION PLAT 2016-9
Tax Account No.: R649670250, R649670290, R649670330
State ID No.: 1S1E03AD 03602, 1S1E03AD 04305, 1S1E03AD 01705

Quarter Section:	3130
Neighborhood:	Buckman, contact John Rose or Josh Baker at buckmanlandusepdx@gmail.com
Business District:	Central Eastside Industrial Council, contact ceic@ceic.cc.
District Coalition:	Southeast Uplift, contact at operations@seuplift.org
Plan District:	Central City (Central Eastside Subdistrict)
Zoning:	IG1 – General Industrial 1
Case Type:	CU AD – Conditional Use Review and Adjustment Review
Procedure:	Type III, with a public hearing before the Hearings Officer. The decision of the Hearings Officer can be appealed to City Council.

Proposal: The applicant proposes to construct a new, 62,000-square-foot building on this site to be used as a concert venue with 1,280 seats and a maximum spectator capacity of 3,500. The applicant requests Conditional Use Review approval for a new Major Event Entertainment use in the IG1 zone. Type III Conditional Use Review is required by Zoning Code Sections 33.140.100.C and 33.815.040.A.1.

The applicant also requests approval of two Adjustments to Zoning Code requirements for this project:

- To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c). The applicant proposes to create 2 truck loading spaces which are primarily in the public right-of-way adjacent to the site. However, loading areas in the public right-of-way do not count toward the Zoning Code requirement.

- To reduce the amount of ecoroof area required from 14,617 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 2,100 square feet (Zoning Code Section 33.510.243.B.1).

Note: The applicant originally requested three Adjustments, including an Adjustment request to Zoning Code Section 33.266.200.B.1 to reduce the minimum number of on-site, short-term bike parking spaces from 32 to zero. The applicant had proposed to construct bike parking in the public right-of-way adjacent to the site as justification for this Adjustment. After discussion with the Portland Bureau of Transportation (PBOT), the applicant decided to withdraw this Adjustment request (Exhibit G-3). If this land use review is approved, the applicant will pay into PBOT's bike parking fund when the building permit is issued, as required by Zoning Code Section 33.266.210.E.1.b when there is insufficient space on-site to provide the required short-term bike parking. PBOT would then construct and maintain bike parking in the public right-of-way.

Relevant Approval Criteria: To be approved, this proposal must comply with the approval criteria of Title 33, the Portland Zoning Code. The applicable approval criteria are:

- Zoning Code Section 33.815.215.A-D (Conditional Use Review); and
- Zoning Code Section 33.805.040.A-F (Adjustment Review).

The Portland Zoning Code is available online at https://www.portland.gov/code/33.

ANALYSIS

Site and Vicinity: The subject site consists of three undeveloped lots owned by Prosper Portland in the Central Eastside industrial area. The middle lot, which abuts SE Salmon Street to the north, SE Water Avenue to the east, and SE Main Street to the south, is the subject of this development proposal. No new development is proposed for the other two Prosper Portland lots to the north and south, and these lots would continue to be used as parking. The site is at the

western edge of the industrial area, and properties to the north, east, and south of the Prosper Portland property are developed with commercial and industrial buildings. To the west of the subject site is the I-5 freeway right-of-way, and beyond that is the Eastbank Esplanade and the Willamette River. The on-ramp to the Hawthorne Bridge is just south of the site.

Zoning: The IG1 (General Industrial 1) zone is one of the three zones that implement the Industrial Sanctuary map designation of the Comprehensive Plan. The zone provides areas where most industrial uses may locate, while other uses are restricted to prevent potential conflicts and to preserve land for industry. IG1 areas generally have smaller lots and a grid block pattern.

The Central City plan district implements the Central City Plan and other plans applicable to the Central City area. The district implements portions of these plans by adding code provisions which address special circumstances existing in the Central City area.

Land Use Review History: Below are prior land use review decisions that include the subject site. None of these land use review decisions have conditions of approval that affect the current proposal.

- LU 14-235124 LC. 2015 approval of a lot consolidation.
- LU 11-171075 AD. 2011 approval of Adjustments to landscaping and exterior activity requirements for a temporary (3-year) asphalt and concrete processing use. The approval has since expired.
- LU 00-00704 GW AD. 2001 approval of a Greenway Review and Adjustments to landscaping and nonconforming upgrades requirements for a parking lot.
- LU 00-00134 GW. 2000 approval of a Greenway Review for new fencing.
- CU 063-86. 1986 Conditional Use Review approval for fill associated with a Willamette River greenway trail.

Agency Review: A "Request for Response" was sent to City agencies May 29, 2024 (Exhibit D-1). The following City reviewers responded:

- The Bureau of Environmental Services (BES) evaluated the approval criterion related to sanitary sewer service and stormwater disposal. The response is referenced in the findings for Zoning Code Section 33.815.215.A.4, below. (Exhibit E-1)
- PBOT evaluated the approval criteria related to the transportation system. The response is referenced in the findings for Zoning Code Section 33.815.215.A.1-3, below. (Exhibit E-2)
- The Water Bureau responded with no concerns. (Exhibit E-3)
- The Fire Bureau responded with information on building permit requirements and no objections to approval. (Exhibit E-4)
- The Police Bureau responded that police can adequately serve the proposed development. (Exhibit E-5)
- The Site Development Review Section of the Bureau of Development Services (BDS) responded with information on building permit requirements and no objections to approval. (Exhibit E-6)

- The Life Safety Review Section of BDS responded with information on building permit requirements and no objections to approval. (Exhibit E-7)

- The Urban Forestry Division of the Parks Bureau responded with information on street tree requirements and no objections to the land use review proposal. (Exhibit E-8)

Neighborhood Review: Signs notifying neighbors of the public hearing were posted on June 6, 2024 (Exhibit D-3) and a "Notice of Public Hearing" was mailed to neighbors on June 20, 2024 (Exhibits D-4 and D-5). At the time this report was prepared, no public comments had been submitted into the record.

ZONING CODE APPROVAL CRITERIA

Conditional Use Review

33.815.215 Major Event Entertainment
These approval criteria ensure that the potentially large size and impacts of these uses are not harmful to surrounding areas and that transportation services are or will be sufficient to serve the use. The approval criteria are:

A. Public services.

1. The proposed use is in conformance with the street designations shown in the Transportation Element of the Comprehensive Plan;

Findings: PBOT reviewed the proposal and submitted the following response to criterion A.1 (Exhibit E-2):

At this location, the City's Transportation System Plan (TSP) classifies the following abutting streets as follows:

Street Name	*Traffic*	*Transit*	*Bicycle*	*Pedestrian*	*Freight*	*Emergency Response*	*Street Design*
SE Salmon St	*Local Service*	*Local Service*	*Major City Bikeway*	*Local Service in a Ped. Dist.*	*Freight District*	*Minor Response*	*Local Street*
SE Water Ave	*Traffic Access St*	*Local Service*	*Major City Bikeway*	*Major City Walkway in a Ped. Dist.*	*Priority Truck Street*	*Major Response*	*Neighbor-hood Main Street*
SE Main St	*Local Service*	*Local Service*	*City Bikeway*	*Local Service in a Ped. Dist.*	*Freight District*	*Minor Response*	*Local Street*

The proposed Conditional Use project is supportive of the surrounding street designations of the Transportation Element of the Comprehensive Plan and TSP classifications. This criterion is met.

Based on this finding from PBOT, staff finds criterion A.1 is met.

2. If the proposed use will be located in an industrial zone, it will not have a significant adverse effect on truck and freight movement;

Findings: PBOT reviewed the proposal and submitted the following response to criterion A.2 (Exhibit E-2):

> *The proposed use is located within the Central Eastside Industrial Sanctuary. The applicant's TIS* [Exhibit A-10] *provided an analysis of existing, projected no-build, and post-development multi-modal transportation patterns. Conclusions indicate that since all of the development is located west of SE Water Ave, with the abutting east-west streets of SE Salmon and SE Main terminate into the Eastbank Esplanade, the proposed development will not conflict with existing truck and freight movement throughout the district. This criterion is met.*

Based on this finding from PBOT, staff finds criterion A.2 is met.

3. Transportation system:

   a. The transportation system is capable of supporting the proposed use in addition to the existing uses in the area. Evaluation factors include safety, street capacity, level of service, connectivity, transit availability, availability of pedestrian and bicycle networks, access restrictions, neighborhood impacts, impacts on pedestrian, bicycle, and transit circulation. Evaluation factors may be balanced; a finding of failure in one or more factors may be acceptable if the failure is not a result of the proposed development, and any additional impacts on the system from the proposed development are mitigated;

   b. Measures proportional to the impacts of the proposed use are proposed to mitigate on- and off-site transportation impacts. Measures may include transportation improvements to on-site circulation, public street dedication and improvement, private street improvements, intersection improvements, signal or other traffic management improvements, additional transportation and parking demand management actions, street crossing improvements, improvements to the local pedestrian and bicycle networks, and transit improvements.

   c. Transportation improvements adjacent to the development and in the vicinity needed to support the development are available or will be made available when the development is complete or, if the development is phased, will be available as each phase of the development is completed.

Findings: PBOT reviewed the proposal and submitted the following response to criterion A.3 (Exhibit E-2):

> *33.815.215.A.3.a: The applicant's traffic engineer has evaluated each of the evaluation factors to determine that that transportation system is capable of supporting the proposed use in addition to the existing uses in the area. PBOT Traffic Engineers have reviewed the applicant's TIS and approved the methodologies, analyses, assumptions, findings, and conclusions with regard to intersection capacity, Level of Service (LOS), trip generation, multi-modal safety, etc. to confirm that the transportation-related approval criteria have been addressed. This criterion is met.*
>
> *The following is a summary of the applicant's TIS findings:*
>
> - *Safety: For vehicle safety, the applicant's traffic engineer utilized Oregon Department of Transportation's (ODOT) Crash Data System over a five-year period from January 2016 to December 2020. There were 66 crashes recorded at the study intersections over the five-year period (see Table 4), with the most crashes occurring at the SE*

Stark St/SE Grand Ave and SE Stark St/SE MLK Jr Blvd intersections. Seven involved people walking or biking, including one at the SE Water Ave/SE Salmon St intersection. The most common collision types at the study intersections were angle, turning and rear-end crashes, many of which show "no yield" or "disregarded traffic signal" as the cited cause. In addition, the Union Pacific study rail crossings along the segment between SE Stark Street and SE Clay Street also had three reported incidents in the past five years, two in 2020 and one in 2022, two at the SE Salmon Street and one at the SE Clay Street crossings (see Table 5). Each of these incidents included a train striking a pedestrian, with two resulting in a fatality and one resulting in an injury.

When an intersection's crash rate (crashes per million entering vehicles) is greater than the critical crash rate (an intersection's crash history compared to similar intersections, adjusting for volume), it's an indication that a design deficiency may exist and further study is warranted. As shown in Table 6, one of the identified intersections is located at the intersection of SE Water Ave/SE Salmon St – where the proposed use is located. This is a 4-leg intersection with stop control of the side street approaches. Most of the collisions were angle/rear end type (4 of the 6 total collisions). Three of the collisions were caused by drivers failing to yield or passing the stop sign, two were caused by drivers running into a stopped or parked vehicle, and one was caused by a bike passing the stop sign.

PBOT standards are designed to provide safe conditions for all modes, especially pedestrians and cyclists. The applicant will be required to dedicate property along all three frontages and reconstruct the abutting pedestrian corridor to City standards, including safety improvements such as striped crosswalk, additional lighting, and curb extensions, mitigating potential conflicts in the future. PBOT will submit additional comments related to safety into the record prior to the public hearing.

- *Street Capacity/Level of Service (LOS): To determine the pre-build and post-build intersection capacity and LOS, turning movement data was obtained for the study intersections during the weekday and weekend pre-event period (6 p.m. to 8 p.m.) and post-event period (10:00 p.m. to 12:00 a.m.). Daily motor vehicle count data was also collected adjacent to the proposed venue along SE Water Avenue, south of SE Salmon Street and north of SE Main Street. The count data indicates that approximately 4,900 vehicles pass the proposed venue along SE Water Avenue during an average weekday. Of these vehicles, 1,300 travel northbound and 3,600 travel southbound. The highest number of trips along SE Water Avenue occurs from 5:00 – 6:00 p.m., with 488 vehicles passing the proposed venue (157 northbound and 331 southbound). During the pre-event and post-event peak hours, 165 and 35 vehicles pass the proposed venue along SE Water Avenue, respectively. For City study intersections along SE Water Avenue not designated on the Metro Regional Transportation Plan Arterial and Throughway Network, the City of Portland standards require a LOS "D" or better to be maintained for signalized intersections and a LOS "E" or better for intersections with stop control. As shown in Table 7, all study intersections meet the current mobility targets during the weekday and weekend pre-event and post event peak hours. All intersections along SE Water Avenue operate with a LOS B or better, while the signalized intersections at SE Stark Street/SE Grand Avenue and SE Stark Street/SE Martin Luther King Jr Boulevard operate with a LOS C or better, well below the current mobility targets.*

  For Post-build expectations, Table 17 shows the future 2025 intersection operations at study intersections, with the proposed venue. As shown, all study intersections are expected to continue to meet mobility targets despite the added traffic growth from the proposed venue through 2025, despite an expected increase up to 14

percent during the pre-event peak hour and up to 41 percent during the post-event peak hour. All intersections along SE Water Avenue are expected operate with a LOS C or better, while the signalized intersections at SE Stark Street/ SE Grand Avenue and SE Stark Street/ SE Martin Luther King Jr Boulevard also operate with a LOS C or better. Therefore, the system evaluation found no street capacity or level of service impacts with the proposed venue, as shown in Table 17, 18 and 19.

- *Pedestrian, Cycling, and Transit Availability: The proposed venue is very accessible to pedestrians and bicyclists and is well-served by a network of continuous sidewalks and bike facilities on the surrounding streets between nearby existing private vehicle parking, bike parking, ride hailing or transit stops. The proposed venue is also adjacent to existing bikeways along the Eastbank Esplanade, SE Water Avenue and SE Salmon Street. Current transit service near the proposed venue is primarily accessed via stops located on SE Grand Avenue and SE Martin Luther King Jr Boulevard between SE Salmon Street and SE Taylor Street, on the SE Madison Street and SE Hawthorne Boulevard viaducts (accessed via stairs from SE Water Avenue), on the SE Morrison Street and SE Belmont Street viaducts (accessed via stairs from SE Water Avenue), along SW 1st Avenue in downtown Portland across the Morrison Bridge, and near SE Tilikum Way. Event attendees and employees who utilize transit for travel to and from the venue would primarily utilize SE Water Avenue, SE Salmon Street and the Eastbank Esplanade to access transit services before and after events. Current schedules indicate that the TriMet Routes 6, 14 and 15 and MAX light-rail service near the proposed venue extends beyond the conclusion of a typical event (i.e., expected to be 11:00 p.m. or later for most events).*

- *Connectivity: The subject site located at the intersection of three ROWs meeting the City's Street spacing standards noted in 17.88.040. Therefore, additional connections are not required.*

- *Access Restrictions: Of the three frontages, SE Main Street is the lowest classified street, therefore the appropriate frontage to which provide vehicular access. As discussed further below, the applicant proposes to provide loading from SE Main Street, reviewed through a PBOT Angle Loading Permit.*

- *On-Street Parking Impacts: Parking surveys were conducted between 6:00 p.m. and 11:00 p.m. on a weekday (Thursday, July 27, 2023) and a weekend (Saturday, August 5, 2023) within a 0.25 mile or about a 10-minute walk of the proposed venue, which is generally considered a comfortable walking distance. This roughly includes the blocks bounded by the Willamette River to the west, SE Morrison Street to the north, SE Grand Avenue to the east and SE Clay Street to the south. On-street parking in the surveyed area is either permit parking (i.e., Zone G or Zone N permit) or available via a 2-hour time limit for non-permit holders and enforced on weekdays only from 7 a.m. to 6 p.m. in non-metered spots and 8 a.m. to 6 p.m. in metered spots. As shown in Table 14, about 1,318 parking spots were identified within the surveyed area, including 1,084 on-street parking stalls and 234 parking spots in public off-street lots (see Figure 16 and Figure 17). A maximum estimated parking occupancy for the entire surveyed area of 32 percent was observed during the weekday and 17 percent was observed during the weekend, both occurring in the 5:00 p.m. and 7:00 p.m. survey period.*

  Table 15 shows that a sold-out concert is estimated to generate demand for 915 parking spaces during both a weekday and weekend event, with attendee and employee arrivals occurring between 6:00 p.m. and 9:00 p.m. and most assumed to use parking locations within 0.25 miles of the proposed venue (i.e., 763 of the 915

parking spaces). The total occupied parking spaces with the proposed venue is estimated to be highest between 8:00 p.m. and 9:00 p.m. during both a weekday and weekend event when the attendee and employee parking demand is at its highest (i.e., demand for 763 spaces within 0.25 miles of the proposed venue). The parking occupancy rate during this period is estimated to reach 82 percent during a weekday event (i.e., 1,074 parking spaces) and 71 percent during a weekend event (i.e., 930 parking spaces) for the 1,318 parking spaces within 0.25 miles of the proposed venue. The estimated parking occupancy rates between 6:00 and 8:00 p.m. are under 80 percent for a weekday event and under 70 percent for a weekend event.

Table 16 shows that a weekday special event is estimated to generate demand for 131 parking spaces, with attendee and employee arrivals occurring between 12:00 p.m. and 3:00 p.m. and all are assumed to use parking locations within 0.25 miles of the proposed venue. The total occupied parking spaces with the proposed venue is estimated to be highest between 1:00 p.m. and 2:00 p.m., when 1,135 parking spaces are utilized. This represents an 86 percent occupancy rate for the 1,318 parking spaces within 0.25 miles of the proposed venue. The estimated parking occupancy rates between 12:00 and 1:00 p.m. and are 2:00 and 3:00 p.m. are at or below 84 percent. PBOT regularly evaluates the on-street parking demand and has the ability to adjust controlling factors in accordance with existing practices and policies.

- *Neighborhood Impacts: The applicant's TIS did not overtly address the potential of neighborhood impacts to the immediate vicinity or district as a whole. The purpose of the IG zone is to protect the Industrial Sanctuary area designated by the Comprehensive Plan. The Industrial Sanctuary zones identify areas where industrial uses may locate, while other uses - such as the current proposal - are restricted to prevent potential conflicts and to preserve land for industry. In this instance, the proposed venue is located in the outer portion of Central Eastside subdistrict, and the majority of proposed operations would occur when many industrial and allowed uses are closed, offsetting the impact to the district. PBOT shared concerns with the applicant that due to the proposed loading in SE Main St, the property directly to the south will be directly affected, which could impact the nature of future development of the neighboring property. PBOT recommends that a letter from the property owner (Prosper Portland) be provided acknowledging the proposed development.*

33.815.215.A.3.b: In accordance with 17.88.020, the proposed project will be required to dedicate and reconstruct the abutting frontages to City standards by providing a 12-ft wide pedestrian corridor along SE Salmon and SE Main streets, and a 15-ft wide corridor along SE Water Street. These improvements will be reviewed through a Public Works permit, which is to receive 30 percent concept approval and bond payment prior to issuance of the building permit. Additional frontage improvements such as street lighting, striped pedestrian crossings, curb extensions, signage, and preparation of ROW bike parking will also be evaluated at time of Public Works permit review.

The applicant also prepared a Transportation Demand Management (TDM) plan to reduce the impact of events on the transportation system and provide employees and attendees with information and incentives to use transportation methods other than single occupancy vehicles. The plan provides strategies to increase the walking, biking, transit, and ride hailing services to ensure that people who travel via motor vehicle effectively navigate to their parking, drop-off, or pick-up location with fewer delays than what would occur under an unmanaged setting. PBOT Parking Control and Traffic Engineering will evaluate ride hailing locations as deemed appropriate to serve the use and reserve the right to modify and relocate such service locations as the project comes online.

The applicant also identified several Capital Improvement Projects (CIP) in and around the area that will also help mitigate anticipated impacts and strengthen the City's mode-split goals.

Therefore, PBOT finds that with these measures, the transportation impact of the project will be able to sufficiently mitigate transportation-related impacts immediately surrounding the site and within the district. This criterion is met.

33.815.215.A.3.c: As noted above, all required frontage improvements, payment into the bike fund, and implementation of TDM strategies will be in place by the time the development is complete. This criterion is met.

In conclusion, based on the evidence included in the record, PBOT finds the applicant has demonstrated with required frontage improvements, implementation of proposed TDM measures, and adhering to strict conditions set forth in the required Angle Loading Permit, the proposed project will support access, safety, and function for users of all modes; and that the transportation system will be capable of supporting the proposed venue, in addition to accommodating the existing uses in the area.

PBOT has no objections to the proposed Major Event Entertainment Conditional Use, subject to the following conditions:

1. *The applicant must receive 30 precent Public Works concept approval and bond payment prior to issuance of building permit for required frontage improvements abutting the site.*

2. *The applicant must apply for and obtain an annual Angle Loading Permit for the proposed loading in SE Main Street. The applicant must adhere to all the conditions and stipulations of said permit for the life of the proposed use. If any conditions are found to be in violation, applicant may be fined and/or revocation of said Angle Loading Permit.*

3. *The applicant must implement the TDM measures identified the TDM plan within their control.*

4. *Applicant must assess their bike parking capacity on an annual basis for first 5 years and then every other year after that. That assessment shall include bike counts averages for events throughout the year. Applicant must send their assessment to PBOT Development Review and PBOT Active Transportation and Safety. If demand consistently exceeds provided bike parking, the applicant must work with PBOT on remedies, including but not limited to adding additional bike racks or a contract for offering temporary bike racks during events.*

5. *The applicant shall provide a letter for the record that the property to the south (R673495) acknowledges and accepts the limitations placed upon the site with the proposed loading occurring in SE Main St by the subject property.*

Based on these findings from PBOT, and with the conditions of approval recommended by PBOT, staff finds criterion A.2 is met.

4. Public services for water supply, police and fire protection are capable of serving the proposed use, and proposed sanitary waste disposal and stormwater disposal systems are acceptable to the Bureau of Environmental Services.

Findings: The Water Bureau and the Fire Bureau reviewed the proposal and responded with no objections (Exhibits E-3 and E-4, respectively), indicating that adequate water supply and fire protection would be available. The Police Bureau reviewed the proposal and responded that police would be able to adequately serve the proposed use (Exhibit E-5). The Bureau of Environmental Services reviewed the application and found the proposed sanitary sewer connection and stormwater management plan are acceptable (Exhibit E-1). For these reasons, staff finds criterion A.4 is met.

B. Appearance. The appearance of the facility is consistent with the intent of the zone in which it is to be located and with the character of the surrounding uses and development;

Findings: Zoning Code Section 33.140.030.C states the intent of the General Industrial zones, including the IG1 zone that applies to the subject site:

The General Industrial zones are two of the three zones that implement the Industrial Sanctuary map designation of the Comprehensive Plan. The zones provide areas where most industrial uses may locate, while other uses are restricted to prevent potential conflicts and to preserve land for industry. The development standards for each zone are intended to allow new development which is similar in character to existing development. The intent is to promote viable and attractive industrial areas.

1. *General Industrial 1. IG1 areas generally have smaller lots and a grid block pattern. The area is mostly developed, with sites having high building coverages and buildings which are usually close to the street. IG1 areas tend to be the City's older industrial areas.*

2. *General Industrial 2. IG2 areas generally have larger lots and an irregular or large block pattern. The area is less developed, with sites having medium and low building coverages and buildings which are usually set back from the street.*

The site is at the western edge of an older industrial area, and the I-5 freeway and the Willamette River are just west of the site. The lots to the north and south of the proposed building are undeveloped, and no development is currently proposed for these lots. Properties east of the site, on the opposite side of SE Water Street, are developed with one- and two-story industrial and commercial buildings. A larger, four-story building (the Eastbank Commerce Center) is one block north of the proposed concert venue.

As intended for the IG1 zone, this area has a grid block pattern and relatively small lots for an industrial area. (The concert venue lot would be about 32,000 square feet after required street dedications.) Since this proposal is to construct a new building on a currently vacant lot, and since that building would be close to all three abutting streets, covering most of the lot area, staff finds the proposal is consistent with the intent of the IG1 zone to have “high building coverages and buildings which are usually close to the street.”

The new building would have a four-story scale and a modern design with angled roof lines and minimal ornamentation other than rooftop plantings (Exhibit C-4). The applicant describes the design as like an “upscale warehouse” (Exhibit A-12, page 9), and Exhibit A-3 shows how the exterior design, though modern, reflects existing buildings in the area.

Staff finds the appearance of the proposed building would be both attractive and compatible with the industrial character of the area, consistent with the intent of the General Industrial

zones to "promote viable and attractive industrial areas." Since staff finds the appearance of the facility would be consistent with the intent of the IG1 zone and with the character of surrounding uses and development, staff finds criterion B is met.

C. Benefit. Public benefits of the proposed use outweigh any impacts that cannot be mitigated;

Findings: The applicant has identified several public benefits from the proposal (Exhibit A-12, page 9). The proposal would develop a currently vacant lot, and the concert venue would create a higher level of activity in the evenings to deter crime and support nearby bars and restaurants without interfering with industrial businesses that operate primarily in the daytime. In addition, the applicant would be required to install public improvements such as wider sidewalks and street trees around the development site.

However, neither the applicant nor staff has identified any negative impacts from the proposed Major Event Entertainment use that cannot be mitigated. The venue would largely operate outside the hours of operation of most businesses in the industrial area, and as stated in the findings for criterion A, public services, including the transportation system, are adequate to accommodate the proposed use.

Since there are no negative impacts identified that cannot be mitigated and which public benefits must outweigh, staff finds criterion C is not applicable.

D. In the campus institutional zones. These approval criteria allow Major Event Entertainment facilities to be part of an institutional campus. They also ensure that the impacts of the facility on nearby areas are mitigated and that affected neighbors have an opportunity to comment on the proposals for mitigation. The approval criteria are:

1. The facility is to be established as part of a school or college. Such facilities are prohibited as part of a medical center campus;

2. The facility is limited to events that feature the athletic or performance skills of students, faculty or staff or which supplement the institution's programs;

3. In the IR zone the facility is listed in the mission statement as part of the institution's impact mitigation plan;

4. In the IR zone the mitigation activities completed to implement the impact mitigation plan are adequate to mitigate for the expected impact of the facility. The location chosen and mitigation measures used are consistent with the institution's approved impact mitigation plan; and

5. All approved limited uses and major event entertainment uses in aggregate occupy 30 percent or less of all campus net building area including portions of parking structures associated with these uses. If the institutional campus includes structured parking, 250 square feet of the structured parking will be associated with the major event entertainment facility for each parking space associated with the facility. Size exceptions are prohibited.

Findings: The campus institutional zones are listed in Zoning Code Section 33.150.020. Since this site is not in a campus institutional zone, criterion D does not apply.

Adjustment Review

33.805.040 Approval Criteria
Adjustment requests will be approved if the applicant has demonstrated that approval criteria A through F, below, have been met.

A. Granting the Adjustment will equally or better meet the purpose of the regulation to be modified; and

Findings: The applicant is requesting two Adjustments:

- To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c).

- To reduce the amount of ecoroof area required from 14,617 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 2,100 square feet (Zoning Code Section 33.510.243.B.1).

Consistency with the purpose of each requirement to be modified is discussed below.

Loading
Zoning Code Section 33.266.310.A states the purpose of the on-site loading space requirement:

> *A minimum number of loading spaces are required to ensure adequate areas for loading for larger uses and developments. These regulations ensure that the appearance of loading areas will be consistent with that of parking areas. The regulations ensure that access to and from loading facilities will not have a negative effect on the traffic safety or other transportation functions of the abutting right-of-way.*

The applicant proposes to use the SE Main Street right-of-way adjacent to the site for truck loading when needed, and this Adjustment is necessary because the Zoning Code requires loading areas that are on-site rather than in the right-of-way. However, the proposal would still accommodate two large trucks simultaneously, as required by Zoning Code Section 33.266.310.C.2.c, and the loading area would be as large as would be required by Zoning Code Section 33.266.310.D.1. The street would not have the appearance of a loading area or parking area when not in use for truck loading, and using the public street for loading rather than creating a dedicated loading area on-site reduces visual impacts by reducing the amount of pavement area required for the proposal. PBOT evaluated this proposal and found that using SE Main Street for truck loading in this case would not have a negative effect on traffic safety or other transportation functions in the right-of-way, as long as the applicant obtains and maintains continuous compliance with an Angle Loading Permit (Exhibit E-2). For these reasons, and with the condition of approval recommended by PBOT to require the Angle Loading Permit, staff finds the Adjustment request equally meets the purpose of the standard.

Ecoroof
Zoning Code Section 33.510.243.A states the purpose of the ecoroof requirement:

> *Ecoroofs provide multiple complementary benefits in urban areas, including stormwater management, reduction of air temperatures, mitigation of urban heat island impacts, air quality improvement, urban green spaces, and habitat for birds, plants and pollinators. The standards are intended to:*
> - *Maximize the coverage of ecoroofs;*

- *Allow for the placement of structures and other items that need to be located on roofs; and*
- *Support the architectural variability of rooftops in the Central City.*

Without this Adjustment, ecoroofs would be required over all the roof area with slopes not steeper than 25% and not covered by mechanical equipment and elevator and stairwell overruns (Zoning Code Section 33.510.243.B.1). The proposed building design incorporates large, sloping roof forms that are not steep enough to be exempt from this requirement (Exhibit A-8, page 7). While 2,100 square feet of ecoroof is proposed over parts of the roof, the applicant states the long spans of the sloped roof areas are not capable of supporting the weight of additional ecoroof area (Exhibit A-6, page 3).

Although a revised roof design could likely accommodate greater ecoroof coverage than proposed, staff finds the proposed building design illustrated in Exhibit C-4 would be unique in the area, supporting architectural variability as noted in the purpose statement above.

Staff also finds the proposal creates meaningful, complementary benefits that are intended to be provided by ecoroofs in the purpose statement above. Besides the 2,100 square feet of ecoroof area, the applicant proposes an additional 2,150 square feet of planted area on top of roof canopies, including a 1,500-square-foot stormwater planter on the south side of the building (Exhibit A-8, page 7). Stainless steel cables would allow plants to climb toward the roof (Exhibit C-4), and the applicant would also be required to plant new street trees adjacent to the site (Exhibits C-1 and E-8). With these features, the site would be much greener than it is currently and would appear greener than typical for sites in the industrial area. While most of the new greenery would not qualify as ecoroof area under Zoning Code Section 33.510.243.B.2, all the new plants and trees would reduce stormwater runoff, improve air quality, mitigate heat island impacts, and provide habitat for birds and insects. The stormwater management requirements for the site would be fully met (Exhibit E-1), and the landscaping plan for the ecoroofs and the other planters includes several plant varieties known to attract pollinators (Exhibit A-8, pages 14-15). The applicant states the planters would utilize a geocell grid to prevent soil erosion, and that plantings would be denser than typical (Exhibit A-12, page 16). The applicant also submitted an operations and maintenance plan that would promote the long-term success of the planters (Exhibit A-11). Finally, staff notes the un-planted roof areas would be painted white (Exhibit A-12, page 15), which would reflect solar radiation to reduce heat island impacts.

For all these reasons, staff finds the Adjustment request equally meets the purpose of the standard.

Summary
With the condition of approval recommended by PBOT for the Angle Loading Permit, staff finds each Adjustment request equally meets the purpose of the requirement to be modified. With the condition of approval, staff finds criterion A is met.

B. If in a residential, CI1, or IR zone, the proposal will not significantly detract from the livability or appearance of the residential area, or if in an OS, C, E, I, or CI2 zone, the proposal will be consistent with the classifications of the adjacent streets and the desired character of the area; and

Findings: Since the site is in an industrial (I) zone, the Adjustments must be consistent with the classifications of adjacent streets and the desired character of the area.

Street classifications
The Adjustment to the loading requirement would allow SE Main Street, which is classified as a Freight District Street, to be used for truck loading for this development. PBOT is supportive of this request. PBOT noted that truck loading has been traditionally accommodated in the right-of-way in this area, and that with continuous compliance with a PBOT-approved Angle Loading Permit, negative impacts on streets adjacent to the site are not expected (Exhibit E-2).

The Adjustment to the ecoroof requirement affects only the interior of the site and would have no impact on travel demand or the function of adjacent streets.

With the condition of approval recommended by PBOT for the Angle Loading Permit, staff finds the proposal is consistent with the adjacent street classifications.

Desired character of area
"Desired character" is defined in Zoning Code Chapter 33.910. Pursuant to this definition, the desired character for this site is determined by:

- the character statement for the IG1 zone
- the purpose statement for the Central City Plan District
- the Buckman Neighborhood Plan
- the Central City 2035 Plan

IG1 zone
The character statement for the IG1 zone is in Zoning Code Section 33.140.030.C:

> *The General Industrial zones are two of the three zones that implement the Industrial Sanctuary map designation of the Comprehensive Plan. The zones provide areas where most industrial uses may locate, while other uses are restricted to prevent potential conflicts and to preserve land for industry. The development standards for each zone are intended to allow new development which is similar in character to existing development. The intent is to promote viable and attractive industrial areas.*
>
> 1. *General Industrial 1. IG1 areas generally have smaller lots and a grid block pattern. The area is mostly developed, with sites having high building coverages and buildings which are usually close to the street. IG1 areas tend to be the City's older industrial areas.*
>
> 2. *General Industrial 2. IG2 areas generally have larger lots and an irregular or large block pattern. The area is less developed, with sites having medium and low building coverages and buildings which are usually set back from the street.*

The new building would cover most of the lot and would be close to each of the abutting streets, and as discussed in the Conditional Use Review findings, the quality building design would be compatible with nearby development and contribute to a more attractive industrial area. Staff finds the proposal is therefore consistent with the character intended for the IG1 zone, and that neither of the Adjustment requests would detract from this character.

Central City Plan District
The purpose statement for the Central City Plan District is in Zoning Code Section 33.510.010:

> *The Central City plan district implements the Central City 2035 Plan. The regulations address the unique role the Central City plays as the region's premier center for jobs,*

health and human services, tourism, entertainment and urban living. The regulations encourage a high-density urban area with a broad mix of commercial, residential, industrial and institutional uses, and foster transit-supportive development, pedestrian and bicycle-friendly streets, a vibrant public realm and a healthy urban river.

A new concert venue for 3,500 spectators at this location would broaden the use mix in the Central Eastside and reinforce the Central City's role as the premiere location in the region for entertainment and tourism. The location is easily accessible by multiple transit lines, and pedestrians and cyclists can easily access the site from the nearby Eastside Esplanade as well as from the neighborhood street grid. Neither of the Adjustment request would detract from the purpose of the Central City Plan District.

Buckman Neighborhood Plan
Staff finds the following objectives from the Buckman Neighborhood Plan to be relevant:

Objective 1.6. Support planning and design of new developments that enhance neighborhood livability.

Objective 1.7. Promote the development of a clear identity for commercial nodes on Burnside, Belmont/Morrison, Hawthorne and the Central Eastside.

Objective 5.1. Control neighborhood traffic and parking to ensure safety and livability for neighborhood residents.

Objective 5.2. Encourage alternatives to automobile use.

Objective 5.10. Discourage trucks from blocking the streets when loading and unloading, except in the designated truck zone.

Objective 6.16. Encourage visual, literary, and performing arts to thrive in Buckman.

Objective 7.2. Encourage pedestrian-oriented commercial development.

The proposal would create a new destination and amenity in the Buckman Neighborhood, support the performing arts, and contribute to a higher profile for the Central Eastside. Since the concert venue would be several blocks from residential areas, impacts on neighborhood livability would be minimal.

The development would have a pedestrian-oriented design with the building facades close to the street lot lines, improved public sidewalks, and no on-site motor vehicle parking. PBOT found that street parking in the vicinity would be adequate to support the development, and PBOT also recommended a condition of approval to require compliance with a transportation demand management (TDM) plan to limit single-occupancy vehicle trips associated with the proposed use.

The Adjustment to the loading requirement would allow trucks to partially, but not fully, block SE Main Street when loading or unloading, but only within a designated, PBOT-approved truck loading area. PBOT recommended a condition of approval requiring continuous compliance with an Angle Loading Permit to prevent truck loading from significantly impacting the functions of the public right-of-way (Exhibit E-2).

For these reasons, and with the conditions of approval recommended by PBOT, staff finds the proposal is consistent with the Buckman Neighborhood Plan.

Central City 2035 Plan
Staff finds the following statements from the Central City 2035 Plan to be relevant:

Goal 1.A. Portland's Central City is the preeminent regional center for commerce and employment, arts and culture, entertainment, tourism, education and government.

Policy 1.1. Regional image. Strengthen the roles of the Central City and Willamette River in enhancing a positive image for the city, region and state.

Policy 1.4. Tourism, retail and entertainment. Expand upon activities in the Central City that support tourism and complement economic success, vibrancy, and livability, with a special focus on retail, cultural events and institutions, public spaces, arts and entertainment, urban design, and transportation.

Policy 1.CE-1.a. Industrial center. Protect the Central Eastside as a centralized hub of industrial businesses and services that support the regional economy by serving other industrial districts and businesses located throughout the Portland metropolitan area.

Policy 3.16. Loading. Support the delivery of goods in the Central City. Pursue strategies that bring new ways of delivering goods to the Central City in a way that optimizes loading and freight access and makes efficient use of limited urban space.

Policy 5.6. Distinct and vibrant districts. Enhance the existing character and diversity of the Central City and its districts, strengthening existing places and fostering the creation of new urban places and experiences.

Central Eastside 2035 Vision. The Central Eastside is a large, multimodal and vibrant employment district where existing industrial and distribution businesses continue to thrive while the district's job base grows and diversifies to attract new and emerging industries.

The new investment on this site would broaden the use mix in the Central Eastside, reinforce the Central City's role as the region's premiere location for entertainment and tourism, and support a positive image of the city as a vibrant, healthy community.

Since the site is at the edge of the industrial area, and since the concert venue would operate in the evenings, the proposal would not significantly impact neighboring industrial businesses, which operate primarily in the daytime.

The Adjustment to allow truck loading from the SE Main Street right-of-way is supported by PBOT (Exhibit E-2) and would make efficient use of urban space by avoiding the need for a separate truck loading area on-site.

For these reasons, staff finds the proposal is consistent with the Central City 2035 Plan.

Summary
With the conditions of approval recommended by PBOT for the transportation demand management plan and the Angle Loading Permit, staff finds the proposal is consistent with the classifications of adjacent streets and with the desired character of the area. With the condition of approval, staff finds criterion B is met.

C. If more than one Adjustment is being requested, the cumulative effect of the Adjustments results in a project which is still consistent with the overall purpose of the zone; and

Findings: Zoning Code Section 33.140.030.C describes the purpose of the IG1 zone:

The General Industrial zones are two of the three zones that implement the Industrial Sanctuary map designation of the Comprehensive Plan. The zones provide areas where most industrial uses may locate, while other uses are restricted to prevent potential conflicts and to preserve land for industry. The development standards for each zone are intended to allow new development which is similar in character to existing development. The intent is to promote viable and attractive industrial areas.

1. *General Industrial 1. IG1 areas generally have smaller lots and a grid block pattern. The area is mostly developed, with sites having high building coverages and buildings which are usually close to the street. IG1 areas tend to be the City's older industrial areas.*

2. *General Industrial 2. IG2 areas generally have larger lots and an irregular or large block pattern. The area is less developed, with sites having medium and low building coverages and buildings which are usually set back from the street.*

As stated in the findings for criterion B, the new building would cover most of the lot and would be close to each of the abutting streets, and the quality building design would contribute to a more attractive industrial area. Staff finds the proposal is therefore consistent with the purpose statement above. The effects of the two Adjustment requests are to allow a smaller area of the roof to be ecoroof and to allow the SE Main Street right-of-way to be used for truck loading when needed. Whether considered individually or cumulatively, these effects do not detract from the proposal's consistency with the purpose of the IG1 industrial zone. Staff finds criterion C is met.

D. City-designated scenic resources and historic resources are preserved; and

Findings: City-designated scenic resources are identified on zoning maps with an "s," and historic resources are identified either with a dot or as being within the boundaries of a Historic or Conservation district. As there are no scenic resources or historic resources mapped on the subject site (Exhibit B), this criterion is not applicable.

E. Any impacts resulting from the Adjustment are mitigated to the extent practical; and

Findings: The Adjustment to waive the requirement for an on-site truck loading area would be mitigated by the truck loading area within the SE Main Street right-of-way. Though loading areas within the right-of-way do not count toward the Zoning Code requirement, the proposed loading area would be adjacent to the building's loading and staging room (Exhibit A-8, page 2) and would meet the dimensional requirements that would apply to an on-site loading area (Zoning Code Sections 33.266.310.C.2.c and 33.266.310.D.1).

The Adjustment to the ecoroof requirement would be mitigated by above-ground planters that would not count as ecoroofs but would create similar benefits. This Adjustment is also mitigated by the applicant's plan to paint un-planted roof areas white to reduce heat island impacts.

Staff finds the impacts of both Adjustment requests are mitigated to the extent practical and that criterion E is therefore met.

F. If in an environmental zone, the proposal has as few significant detrimental environmental impacts on the resource and resource values as is practicable;

Findings: Environmental overlay zones are designated on zoning maps with either a "p" (Environmental Protection overlay zone) or a "c" (Environmental Conservation overlay zone). As there are no environmental overlay zones mapped on the subject site (Exhibit B), this criterion is not applicable.

DEVELOPMENT STANDARDS

Unless specifically required in the approval criteria listed above, this proposal does not have to meet the development standards in order to be approved during this review process. The plans submitted for a building or zoning permit must demonstrate that all development standards of Title 33 can be met or have received an Adjustment or Modification via a land use review prior to the approval of a building or zoning permit.

CONCLUSIONS

Staff finds the proposal for a new concert venue on this site would not negatively impact the industrial area, and that adequate public services are available to support the proposal.

The proposed Adjustments to the loading and ecoroof requirements are consistent with the purpose of the standards to be modified, with the character of the area, and with the purpose of the IG1 zone. Impacts from the Adjustments would be mitigated to the extent practical.

With the recommended conditions of approval listed below, staff finds that each of the applicable Conditional Use Review and Adjustment Review approval criteria are met. With these conditions, staff recommends approval of the proposal.

TENTATIVE STAFF RECOMMENDATION

(May be revised upon receipt of new information at any time prior to the Hearings Officer decision)

Approval of Conditional Use Review to establish a Major Event Entertainment use on this site; and

Approval of two Adjustments:

- To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c).

- To reduce the amount of ecoroof area required from 14,617 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 2,100 square feet (Zoning Code Section 33.510.243.B.1).

The approvals are per the approved plans, Exhibit C-1 through C-4, and subject to the following conditions of approval:

A. As part of the building permit application submittal, each of the required site plans and any additional drawings must reflect the information and design approved by this land use review as indicated in Exhibits C-1 through C-4. The sheets on which this information appears must be labeled, "Proposal and design as approved in Case File # LU 23-111784 CU AD."

B. Prior to issuance of a building permit for this development, the applicant must receive 30 precent public works concept approval and make any required bond payment for required frontage improvements abutting the site.

C. Prior to issuance of a building permit for this development, the applicant must obtain approval of an annual Angle Loading Permit for the proposed truck loading in SE Main Street. The applicant must adhere to all the conditions and stipulations of said permit for the life of the proposed use. If any conditions are found to be in violation, the applicant may be fined and/or said Angle Loading Permit may be revoked.

D. Prior to issuance of a building permit for this development, the applicant must provide a letter for the record that Prosper Portland, the owner of the property to the south (R673495), acknowledges and accepts the limitations placed upon the site with the proposed truck loading occurring in SE Main Street adjacent to the subject property.

E. The applicant must continually implement the transportation demand management (TDM) measures identified in the TDM plan in Exhibit A-10 that are within their control.

F. The applicant must assess the bike parking capacity on an annual basis for the first 5 years after the concert venue begins operation and then every other year after that. That assessment must include bike count averages for events throughout the year. The applicant must send their assessment to PBOT Development Review and PBOT Active Transportation and Safety. If demand consistently exceeds the provided bike parking, the applicant must work with PBOT on remedies, including but not limited to adding additional bike racks or a contract for offering temporary bike racks during events.

PROCEDURAL INFORMATION

The application for this land use review was submitted on December 22, 2023, and was determined to be complete on May 23, 2024.

Zoning Code Section 33.700.080 states that land use review applications are reviewed under the regulations in effect at the time the application was submitted, provided that the application is complete at the time of submittal, or complete within 180 days. Therefore, this application was reviewed against the Zoning Code in effect on December 22, 2023.

ORS 227.178 states the City must issue a final decision on land use review applications within 120 days of the application being deemed complete. The 120-day review period may be extended at the request of the applicant. In this case, the applicant has not extended the 120-day review period. Unless extended by the applicant, the 120 days will expire on **September 20, 2024.**

Some of the information contained in this report was provided by the applicant**.** As required by Zoning Code Section 33.800.060, the burden of proof is on the applicant to show that the approval criteria are met. The Bureau of Development Services has independently reviewed the information submitted by the applicant and has included this information only where the Bureau of Development Services has determined the information satisfactorily demonstrates compliance with the applicable approval criteria. This report is the recommendation of the Bureau of Development Services with input from other City and public agencies.

Conditions of Approval. If approved, this project may be subject to specific conditions of approval, listed above. Compliance with the applicable conditions of approval must be documented in all related permit applications. Plans and drawings submitted during the permitting process must illustrate how applicable conditions of approval are met. Any project elements that are specifically required by conditions of approval must be shown on the plans and labeled as such.

These conditions of approval run with the land, unless modified by future land use reviews. As used in the conditions, the term “applicant” includes the applicant for this land use review, any person undertaking development pursuant to this land use review, the proprietor of the use or

development approved by this land use review, and the current owner and future owners of the property subject to this land use review.

This report is not a decision. The review body for this proposal is the Hearings Officer who will make the decision on this case. This report is a recommendation to the Hearings Officer by the Bureau of Development Services. The Hearings Officer may adopt, modify, or reject this recommendation. The Hearings Officer will make a decision about this proposal within 17 days of the close of the record. To comment, you may testify at the hearing, submit comments at www.portland.gov/omf/hearings/land-use; email your comments to HearingsOfficeClerks@portlandoregon.gov; write to the Land Use Hearings Officer, 1900 SW Fourth Ave., Suite 3100, Portland, OR 97201; or FAX your comments to 503-823-4347.

You will receive mailed notice of the decision if you write a letter received before the hearing or testify at the hearing, or if you are the property owner or applicant. This staff report will be posted on the Bureau of Development Services website at https://www.portland.gov/bds/zoning-land-use/public-notices. Enter the land use case file number in the keyword search.

Appeal of the decision. The decision of the Hearings Officer may be appealed to City Council, who will hold a public hearing. In the event of an appeal of the Hearings Officer's decision, only evidence previously presented to the Hearings Officer will be considered by the City Council.

You may appeal the decision only if you submit written comments which are received before the close of the record, if you testify at the hearing, or if you are the property owner or applicant. Appeals must be filed within 14 days of the decision. **An appeal fee of $6,079 will be charged.**

Neighborhood associations recognized by the Office of Community & Civic Life may qualify for a waiver of the appeal fee provided that the association has standing to appeal. The appeal must contain the signature of the chairperson or other person authorized by the association, confirming the vote to appeal was done in accordance with the organization's bylaws. Neighborhood associations who wish to qualify for a fee waiver must complete the Type III Appeal Fee Waiver Request for Organizations Form and submit it prior to the appeal deadline. The Type III Appeal Fee Waiver Request for Organizations Form contains instructions on how to apply for a fee waiver, including the required vote to appeal.

Assistance in filing the appeal and information on fee waivers are available from the Bureau of Development Services website: https://www.portland.gov/bds/zoning-land-use/land-use-review-fees-and-types/appeals-fees-and-fee-waivers.

Recording the final decision. If this land use review is approved the final decision will be recorded with the County Recorder. *Unless appealed,* the final decision will be recorded by the Bureau of Development Services.

Expiration of this approval. Generally, land use approvals (except Comprehensive Plan and Zoning Map Amendments) expire five years from the date of the final decision unless a permit has been issued for the approved development. See Zoning Code Section 33.730.130 for specific expiration rules.

Applying for permits. A building permit, occupancy permit, or development permit may be required before carrying out an approved project. At the time they apply for a permit, permittees must demonstrate compliance with:

- All conditions imposed herein;
- All applicable development standards, unless specifically exempted as part of this land use review;
- All requirements of the building code; and

- All provisions of the Municipal Code of the City of Portland, and all other applicable ordinances, provisions and regulations of the City.

Planner's Name: Andrew Gulizia
Date: June 27, 2024

EXHIBITS (not attached unless indicated)

A. Applicant's Statement:

Original submittal
1. Original narrative
2. Original plan set
3. Context images
4. Original stormwater report
5. Original transportation study

May 23, 2024 submittal
6. Letter in response to incompleteness determination letter
7. Revised narrative
8. Revised plan set
9. Revised stormwater report
10. Revised transportation study

June 24, 2024 submittal
11. Operations and maintenance plan for stormwater planters and ecoroofs

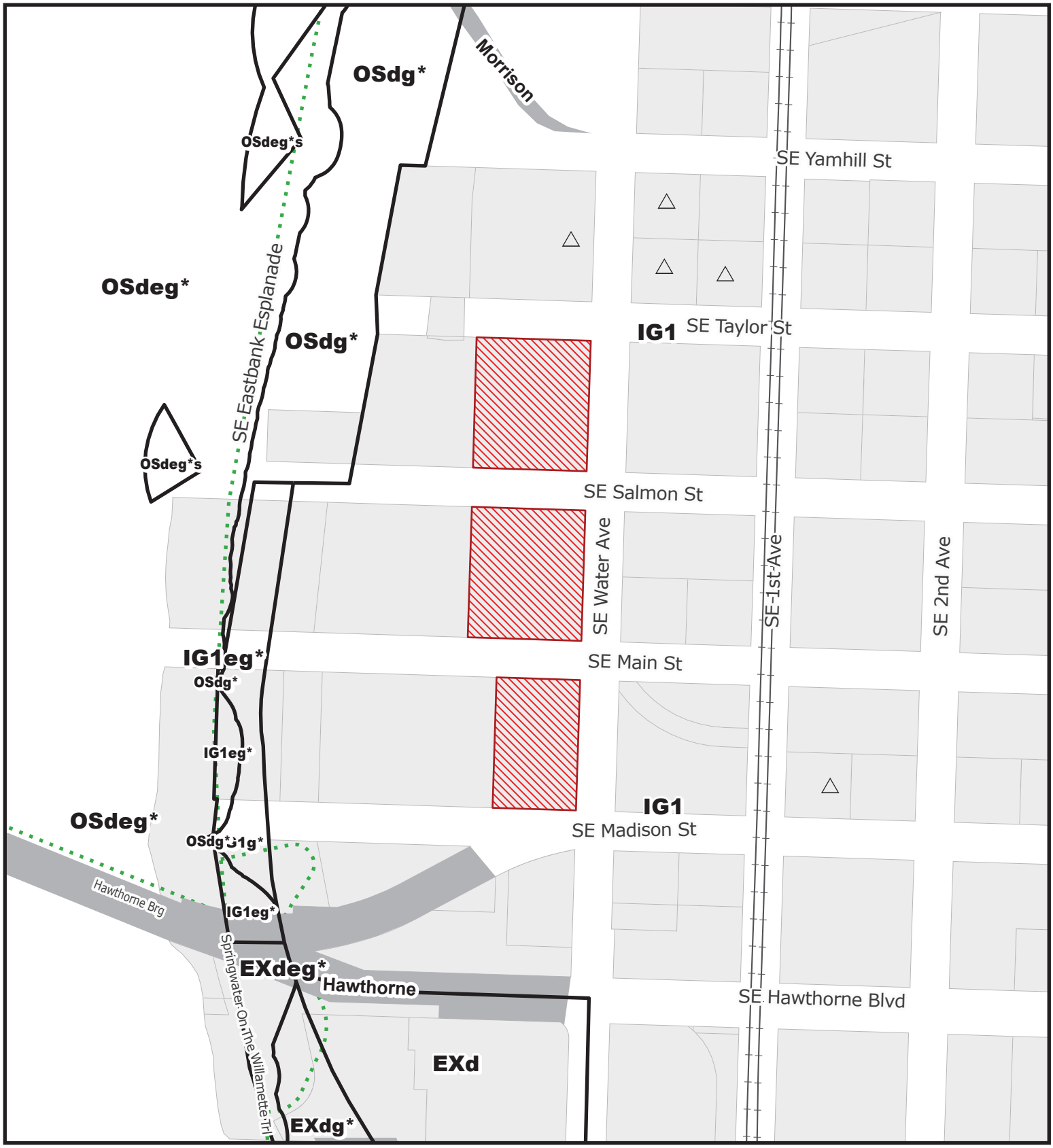
June 26, 2024 submittal
12. Final revised narrative

B. Zoning Map (attached)
C. Plans & Drawings:
   1. Site plan (attached)
   2. East and south building elevations (attached)
   3. West and north building elevations (attached)
   4. Photo simulation (attached)
D. Notification information:
   1. Request for Response
   2. Sign posting instructions
   3. Applicant's statement certifying posting
   4. Notice of Public Hearing, mailed June 20, 2024
   5 Mailing list for Notice of Public Hearing
E. Agency Responses:
   1. Bureau of Environmental Services
   2. Portland Bureau of Transportation
   3. Water Bureau
   4. Fire Bureau
   5. Police Bureau
   6. Site Development Review Section of BDS
   7. Life Safety Review Section of BDS
   8. Parks and Recreation - Urban Forestry Division
F. Correspondence (none received)
G. Other:

1. Land use review application
2. Incompleteness determination letter, dated January 12, 2024
3. Applicant email withdrawing bike parking Adjustment request, received June 25, 2024

H. Hearing Exhibits:

The Bureau of Development Services is committed to providing equal access to information and hearings. To request an accommodation or alternative format of communication, please contact us at least five business days prior to the hearing at 503-823-7300 (TTY 503-823-6868).



For Zoning Code in Effect Post October 1, 2022

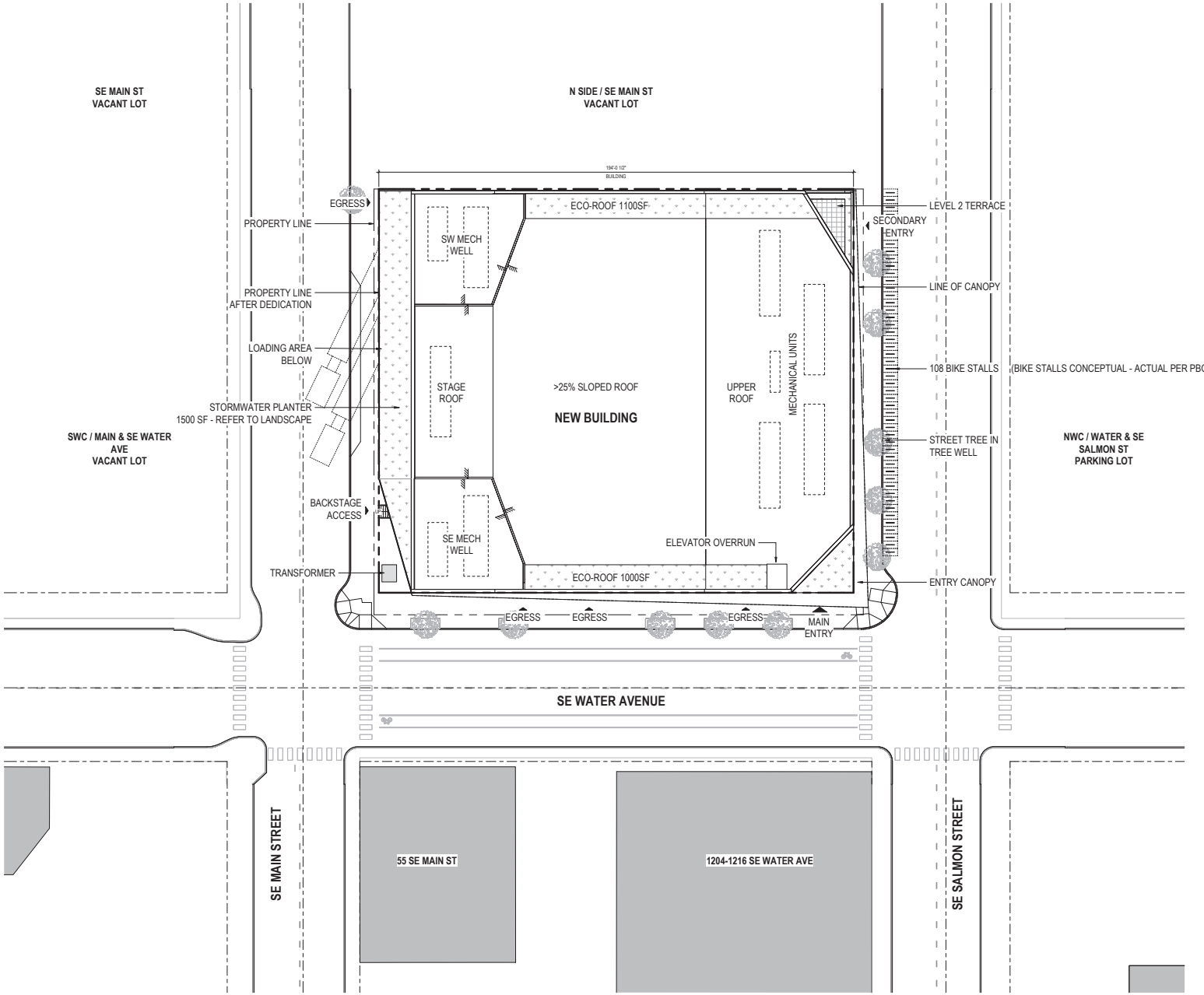
ZONING

THIS SITE LIES WITHIN THE:
CENTRAL CITY PLAN DISTRICT
CENTRAL EASTSIDE SUBDISTRICT

Site
Historic Landmark
Recreational Trails

File No. LU 23 - 111784 CU AD
1/4 Section 3130
Scale 1 inch =200 feet
State ID 1S1E03AD 3602
Exhibit B Jan 16, 2024

Portland Hearings Office
Case #4[illegible]
Bureau Case #LU 23-111784 CU AD
Exhibit #5
Page 23 of 27



1 Z090 ZONING - SITE PLAN
SCALE: 1/16" = 1'-0"

SITE DATA TABLE

SITE AREA:
34,800 SF

SITE AREA AFTER DEDICATION:
32,040 SF

BUILDING COVERAGE:
31,600 SF

TOTAL BUILDING AREA:
98,500 SF

VENUE CAPACITY:
APPROX 3,800 OCCUPANTS

BIKE PARKING TOTALS

(TABLE 266-6 MAJOR EVENT ENTERTAINMENT)

LONG TERM BIKE PARKING:
REQUIRED: 19 PROVIDED:19

SHORT TERM BIKE PARKING:
3800 OCCS / 40
REQUIRED: 95 PROVIDED: 108

CENTRAL EASTSIDE VENUE

NWC/MAIN & SE WATER AVE
PORTLAND, OR 97214

ARCHITECT
LEVER
4713 N. Albina Avenue,
4th Floor Portland, OR 97217
T: 503.928.6040
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PHASE
SCHEMATIC DESIGN

DATE
DECEMBER 21, 2023

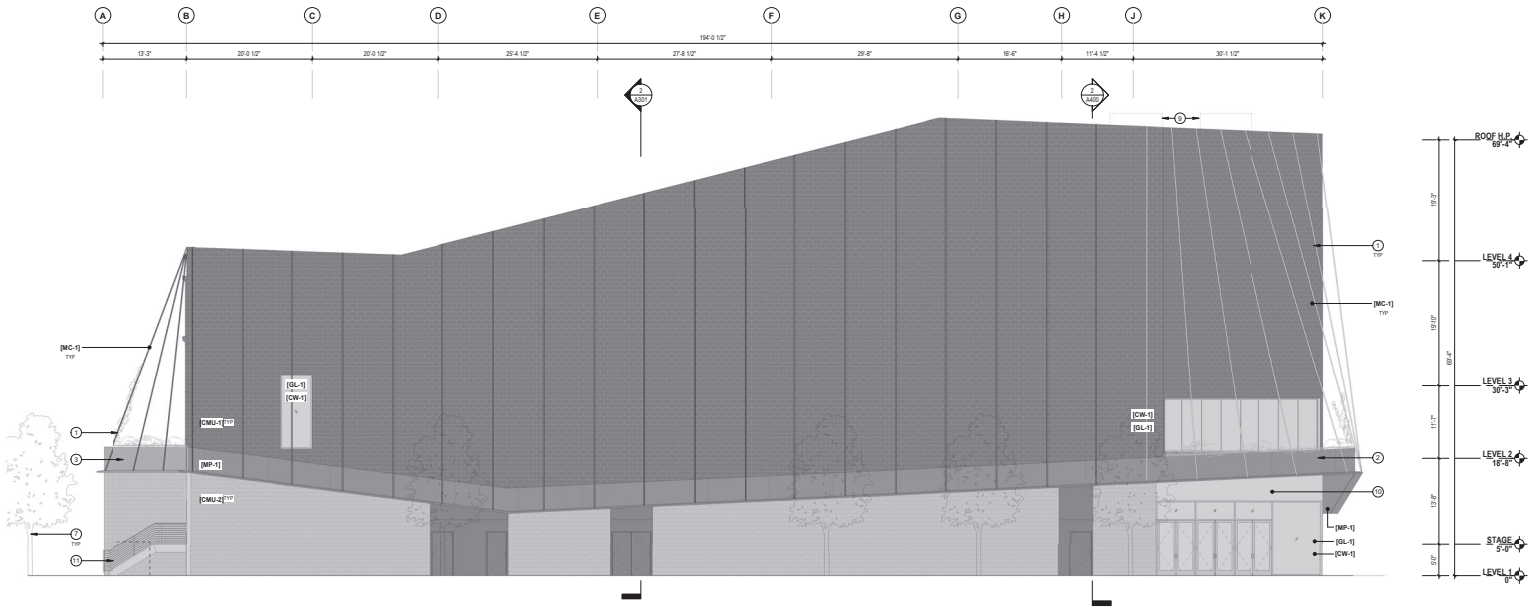
PROJECT NUMBER
271

SCALE
As indicated

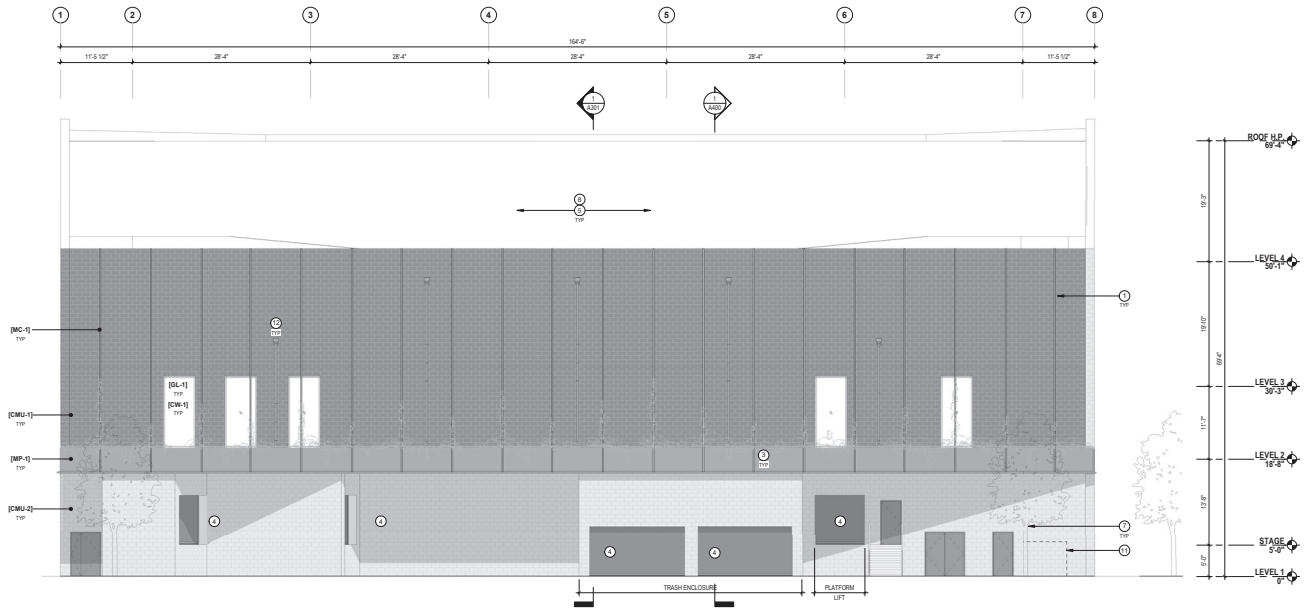
SHEET TITLE
ZONING - SITE PLAN

Z090

Portland Hearings Office
Case #LU23-111784
Exhibit C-1



1 Z201 ZONING - EAST BUILDING ELEVATION
SCALE: 1/8" = 1'-0"



2 Z201 ZONING - SOUTH BUILDING ELEVATION
SCALE: 1/8" = 1'-0"

ELEVATION KEYNOTES

1 NON-STRUCTURAL STEEL CLIMBING VINE TRELLIS.
2 CLIMBING VINE PLANTER/ CANOPY. REFER TO WALL SECTION FOR DETAILS.
3 STORMWATER PLANTER.
4 OVERHEAD ROLL-UP DOOR.
5 +20% SLOPED ROOF BEYOND.
6 EXISTING CURB EXTENSION.
7 STREET TREE IN TREE WELL.
8 ROOFING MEMBRANE COMPLIANT WITH COOL ROOF REQUIREMENTS.
9 MECHANICAL UNIT BEYOND
10 LED DISPLAY
11 TRANSFORMER
12 SCUPPER & DOWNSPOUT

FINISH + MAT'L LEGEND

[CONC-1]	CAST-IN PLACE CONCRETE
[CMU-1]	CONCRETE MANSONRY UNIT BOD: MUTUAL MATLS GROUND FACE 8 8-16 STANDARD IN SABLE
[CMU-2]	CONCRETE MANSONRY UNIT - FLUTED FACE WITH CLEAR FINISH BOD: MUTUAL MATLS 8 8-16 7-SCORE BOND BEAM/ SPLIT FACE
[CW-1]	ALUMINUM CURTAIN WALL
[CP-1]	PRECAST CONCRETE PAVER
[DP-1]	BITUMINOUS DAMPPROOFING
[GL-1]	1" INSULATED GLAZING UNIT
[GR-1]	EXTERIOR 42" GUARDRAIL BOD: STEEL PIPE + CARL STAHL X-TEND CABLE MESH
[GR-2]	BALCONY 42" GUARDRAIL BOD: REFER TO OWNER STANDARD
[HR-1]	HANDRAIL
[INSUL-1]	BATT INSULATION
[INSUL-2]	MINERAL WOOL INSULATION
[INSUL-3]	POLYISOCYANURATE INSULATION
[INSUL-4]	EXPANDED POLYSTYRENE INSULATION
[INSUL-5]	EXTRUDED POLYSTYRENE INSULATION
[INSUL-6]	CLOSED CELL SPRAY FOAM INSULATION
[MC-1]	STEEL TRELLIS SYSTEM BOD: CARL STAHL GREEN CABLE HEAVY
[MP-1]	COMPOSITE METAL PANEL
[MF-1]	SHEET METAL FLASHING
[MR-1]	MIRROR
[P-1]	PAINT - COLOR 1
[RF-1]	60 MIL SINGLE-PLY PVC ROOF
[RF-2]	2-PLY SBS ROOF ASSEMBLY
[SAM-1]	ASPHALTIC FLASHING MEMBRANE
[SAM-2]	BUTYL FLASHING MEMBRANE
[SAM-3]	HIGH-TEMP FLASHING MEMBRANE
[WDM-1]	RECESSED WALK-OFF MAT
[WP-1]	BELOW GRADE WATERPROOFING - BENTONITE
[WP-2]	BELOW GRADE WATERPROOFING - SHEET MEMBRANE
[WR-1]	WATER-REPELLANT COATING
[WR-2]	WATER-REPELLANT + GRAFFITI COATING
[VPR-1]	INTERIOR VAPOR RETARDER
[VPR-2]	ROOF VAPOR RETARDER
[VPR-3]	UNDER-SLAB VAPOR RETARDER

STEEL TRELLIS TOTALS

QTY: 65
VARIED LENGTHS
LONGEST: 60' - 0" SHORTEST: 30' - 6"

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EXTERIOR BUILDING ELEVATIONS - SOUTH & EAST

Z201

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Exhibit C-2

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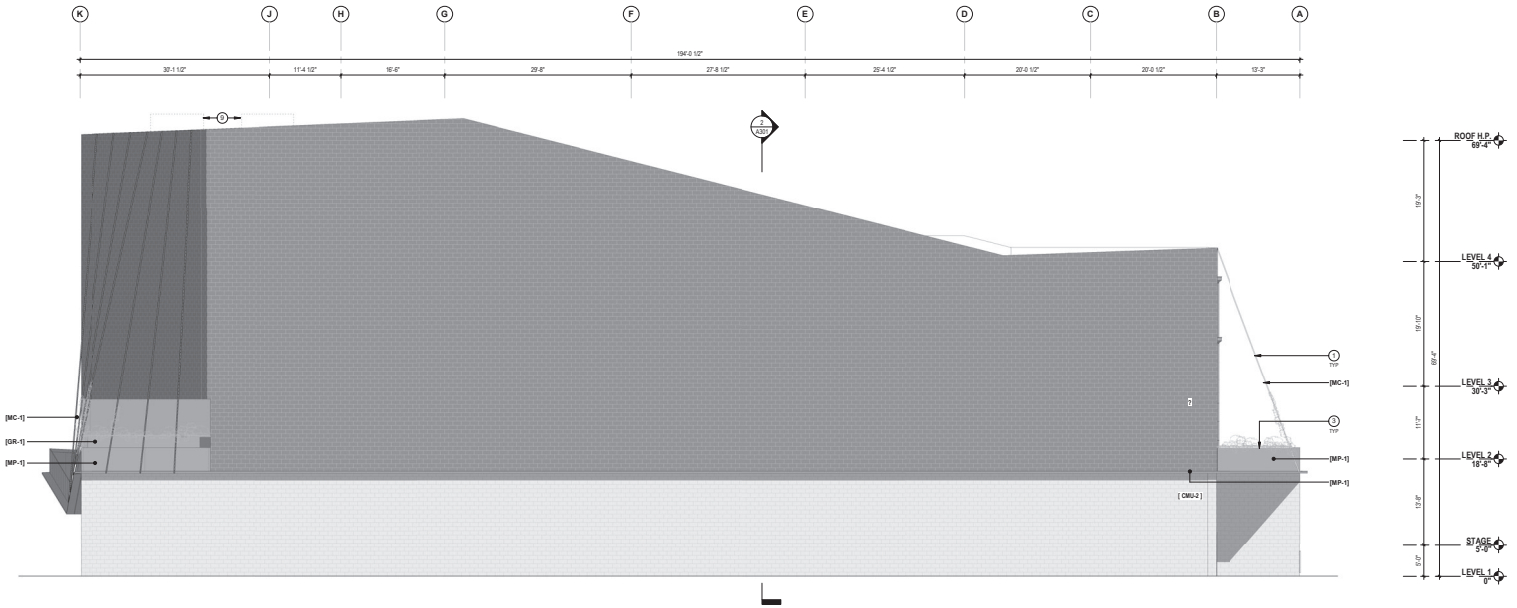
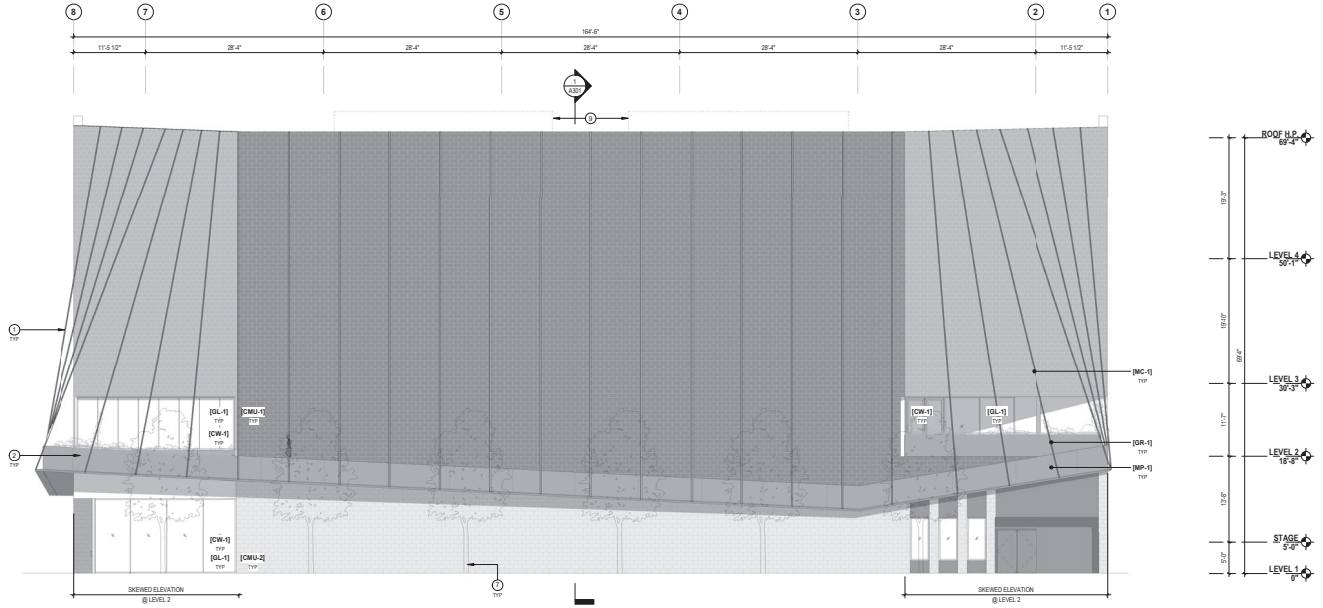
Autodesk Docs://Central Eastside Venue (CEV)/Archi_CEV_271_R23.rvt



2 Z202 ZONING - WEST BUILDING ELEVATION
SCALE: 1/8" = 1'-0"



1 Z202 ZONING - NORTH BUILDING ELEVATION
SCALE: 1/8" = 1'-0"

ELEVATION KEYNOTES

1 NON-STRUCTURAL STEEL CLIMBING VINE TRELLIS.
2 CLIMBING VINE PLANTER/ CANOPY. REFER TO WALL SECTION FOR DETAILS.
3 STORMWATER PLANTER.
4 OVERHEAD ROLL-UP DOOR.
5 +20% SLOPED ROOF BEYOND.
6 EXISTING CURB EXTENSION.
7 STREET TREE IN TREE WELL.
8 ROOFING MEMBRANE COMPLIANT WITH COOL ROOF REQUIREMENTS.
9 MECHANICAL UNIT BEYOND
10 LED DISPLAY
11 TRANSFORMER
12 SCUPPER & DOWNSPOUT

FINISH + MAT'L LEGEND

[CONC-1] CAST-IN-PLACE CONCRETE
[CMU-1] CONCRETE MANSONRY UNIT
BOD: MUTUAL MAT'LS GROUND FACE 8-8-16 STANDARD IN SABLE
[CMU-2] CONCRETE MANSONRY UNIT - FLUTED FACE WITH CLEAR FINISH
BOD: MUTUAL MAT'LS 8-8-16 7-SCORE BOND BEAM SPLIT FACE
[CW-1] ALUMINUM CURTAIN WALL
[CP-1] PRECAST CONCRETE PAVER
[DP-1] BITUMINOUS DAMPPROOFING
[GL-1] 1" INSULATED GLAZING UNIT
[GR-1] EXTERIOR 42" GUARDRAIL
BOD: STEEL PIPE + CARL STAHL X-TEND CABLE MESH
[GR-2] BALCONY 42" GUARDRAIL
BOD: REFER TO OWNER STANDARD
[HR-1] HANDRAIL
[INSUL-1] BATT INSULATION
[INSUL-2] MINERAL WOOL INSULATION
[INSUL-3] POLYISOCYANURATE INSULATION
[INSUL-4] EXPANDED POLYSTYRENE INSULATION
[INSUL-5] EXTRUDED POLYSTYRENE INSULATION
[INSUL-6] CLOSED CELL SPRAY FOAM INSULATION
[MC-1] STEEL TRELLIS SYSTEM
BOD: CARL STAHL GREEN CABLE HEAVY
[MP-1] COMPOSITE METAL PANEL
[MF-1] SHEET METAL FLASHING
[MR-1] MIRROR
[P-1] PAINT - COLOR 1
[RF-1] 60 MIL SINGLE-PLY PVC ROOF
[RF-2] 2-PLY SBS ROOF ASSEMBLY
[SAM-1] ASPHALTIC FLASHING MEMBRANE
[SAM-2] BUTYL FLASHING MEMBRANE
[SAM-3] HIGH-TEMP FLASHING MEMBRANE
[WOM-1] RECESSED WALK-OFF MAT
[WP-1] BELOW GRADE WATERPROOFING - BENTONITE
[WP-2] BELOW GRADE WATERPROOFING - SHEET MEMBRANE
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[WR-2] WATER-REPELLANT + GRAFFITI COATING
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[VPR-2] ROOF VAPOR RETARDER
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STEEL TRELLIS TOTALS

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Z202

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Case #LU23-111784
Exhibit C-3

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Autodesk Docs://Central Eastside Venue (CEV)/Arch_CEV_271_R23.rvt

LU 23-111784 CU AD Exhibit C-4

	A	B	C	D	E	F
1	ENDORSEMENT	INFO1	INFO2	NAME	ADDRESS/IO ADDRESS	CITYSTATEZIP/ADDRESSEE
2	RETURN SERVICE REQUESTED		1S1E03AA 5800	BRIX LAW LLP	75 SE YAMHILL ST #202	PORTLAND OR 97214
3	RETURN SERVICE REQUESTED		1S1E03AA 5800	HELLO! GOOD MORNING! LLC	2235 NE 33RD AVE	PORTLAND OR 97212
4	RETURN SERVICE REQUESTED		1S1E03AA 5800	81 YAMHILL INVESTORS LLC	75 SE YAMHILL ST #201	PORTLAND OR 97214
5	RETURN SERVICE REQUESTED		1S1E03AA 5800	BEAM CONSTR & MANAGEMENT LLC	1001 SE WATER AVE #400	PORTLAND OR 97214
6	RETURN SERVICE REQUESTED		1S1E03AA 5800	CARGO INC	81 SE YAMHILL ST	PORTLAND OR 97214
7	RETURN SERVICE REQUESTED		1S1E03AA 5800	URBAN WORKS REAL ESTATE LLC	75 SE YAMHILL ST #203	PORTLAND OR 97214
8	RETURN SERVICE REQUESTED		1S1E03AA 5900	M AND A PROPERTIES LLC	61 SE YAMHILL ST	PORTLAND OR 97214-2134
9	RETURN SERVICE REQUESTED		1S1E03AA 5900	LABYRINTH FORGE BREWING CO LLC	61 SE YAMHILL ST	PORTLAND OR 97214
10	RETURN SERVICE REQUESTED		1S1E03AD 1000	WATER AVENUE PROPERTIES LLC	1001 SE WATER AVE #400	PORTLAND OR 97214
11	RETURN SERVICE REQUESTED		1S1E03AD 1100	KAUTH MICHAEL	2456 NE 7TH AVE	PORTLAND OR 97212
12	RETURN SERVICE REQUESTED		1S1E03AD 1100	CATALYST TRADE INC	79 SE TAYLOR ST #400	PORTLAND OR 97214-2160
13	RETURN SERVICE REQUESTED		1S1E03AD 1100	COLUMBIA GREEN TECHNOLOGIES INC	79 SE TAYLOR ST #201	PORTLAND OR 97214
14	RETURN SERVICE REQUESTED		1S1E03AD 1200	BELLISSIMO INC	9 SE 3RD AVE #100	PORTLAND OR 97214
15	RETURN SERVICE REQUESTED		1S1E03AD 1200	ION STATION EQUIPMENT LLC	PO BOX 80615	INDIANAPOLIS IN 46280
16	RETURN SERVICE REQUESTED		1S1E03AD 1200	WATER AVENUE COFFEE LLC	9 SE 3RD AVE #100	PORTLAND OR 97214
17	RETURN SERVICE REQUESTED		1S1E03AD 1200	BOKE BOWL LLC	1028 SE WATER AVE #120	PORTLAND OR 97214
18	RETURN SERVICE REQUESTED		1S1E03AD 1200	ARCH COMMUNICATIONS GROUP INC	5901 S MACADAM AVE #126	PORTLAND OR 97239
19	RETURN SERVICE REQUESTED		1S1E03AD 1200	BRAVE NEW DAY INC	1028 SE WATER AVE #220	PORTLAND OR 97214
20	RETURN SERVICE REQUESTED		1S1E03AD 1200	BUNK BAR INC	1028 SE WATER AVE #130	PORTLAND OR 97214
21	RETURN SERVICE REQUESTED		1S1E03AD 1200	MONQUI INC	1028 SE WATER AVE #270	PORTLAND OR 97214
22	RETURN SERVICE REQUESTED		1S1E03AD 1200	PACIFIC STAR CORP	PO BOX 230968	TIGARD OR 97281
23	RETURN SERVICE REQUESTED		1S1E03AD 1300	THE LIPPMAN CO INC	50 SE YAMHILL ST	PORTLAND OR 97214
24	RETURN SERVICE REQUESTED		1S1E03AD 1400	ACORN MARKETING	1001 SE WATER AVE #280	PORTLAND OR 97214-2149
25	RETURN SERVICE REQUESTED		1S1E03AD 1400	LEEKA INC	1001 SE WATER AVE #175	PORTLAND OR 97214
26	RETURN SERVICE REQUESTED		1S1E03AD 1400	PAULSON KIMBERLY	3453 NE IRVING ST	PORTLAND OR 97232-2579
27	RETURN SERVICE REQUESTED		1S1E03AD 1400	EASTBANK COMMERCE CENTER LLC	1001 SE WATER AVE #400	PORTLAND OR 97214
28	RETURN SERVICE REQUESTED		1S1E03AD 1400	AFTON LLC	581 LANCASTER DR SE #691	SALEM OR 97317
29	RETURN SERVICE REQUESTED		1S1E03AD 1400	CLARITY INNOVATIONS INC	160 NE 6TH AVE #300	PORTLAND OR 97232
30	RETURN SERVICE REQUESTED		1S1E03AD 1400	LAUNDRY STUDIO LLC	1001 SE WATER AVE #220	PORTLAND OR 97214
31	RETURN SERVICE REQUESTED		1S1E03AD 1400	MONA LISA INC	1001 SE WATER AVE #140	PORTLAND OR 97214-2172
32	RETURN SERVICE REQUESTED		1S1E03AD 1400	WATCHFIRE LLC	1001 SE WATER AVE #165	PORTLAND OR 97214
33	RETURN SERVICE REQUESTED		1S1E03AD 1401	OREGON STATE OF	411 TRANSPORTATION BLDG	SALEM OR 97310
34	RETURN SERVICE REQUESTED		1S1E03AD 1600	DEPARTMENT OF TRANSPORTATION	4040 FAIRVIEW INDUSTRIAL DR SE MS#2	SALEM OR 97302-1142
35	RETURN SERVICE REQUESTED	1S1E03AD 1708 DEPT OF TRANSP	EASTBANK COMMERCE CENTER ATTN	PRPTY MNGMT #52846 EASTBANK	4040 FAIRVIEW INDUSTRIAL DR SE MS#2	SALEM OR 97302-1142
36	RETURN SERVICE REQUESTED		1S1E03AD 1800	EMPIRE RUBBER & SUPPLY CO	80 SE TAYLOR ST	PORTLAND OR 97214-2117
37	RETURN SERVICE REQUESTED		1S1E03AD 1800	EMPIRE RUBBER & SUPPLY CO INC	PO BOX 14950	PORTLAND OR 97293
38	RETURN SERVICE REQUESTED		1S1E03AD 1900	110 SE TAYLOR LLC	1230 SW 1ST AVE #201	PORTLAND OR 97204
39	RETURN SERVICE REQUESTED		1S1E03AD 1900	LINDCO INC	PO BOX 3708	PORTLAND OR 97208-3708
40	RETURN SERVICE REQUESTED		1S1E03AD 2000	COHO CROSSING LLC	823 SE 3RD AVE	PORTLAND OR 97214
41	RETURN SERVICE REQUESTED		1S1E03AD 3200	MULTNOMAH LAW LIBRARY	1021 SW 4TH AVE #442	PORTLAND OR 97204
42	RETURN SERVICE REQUESTED		1S1E03AD 3200	SPOON FOUNDATION	135 SE MAIN ST #201	PORTLAND OR 97214
43	RETURN SERVICE REQUESTED		1S1E03AD 3200	STUMPTOWN COFFEE CORP	100 SE SALMON ST	PORTLAND OR 97214-3370
44	RETURN SERVICE REQUESTED		1S1E03AD 3200	KALBERER COMPANY	321 SW 4TH AVE #800	PORTLAND OR 97204-2330
45	RETURN SERVICE REQUESTED		1S1E03AD 3300	BURBACK MOTORS INC	71 SE MAIN ST	PORTLAND OR 97214
46	RETURN SERVICE REQUESTED		1S1E03AD 3300	NORPAC MAIN LLC	PO BOX 820570	VANCOUVER WA 98682
47	RETURN SERVICE REQUESTED		1S1E03AD 3300	REACHOUT EXPEDITIONS	PO BOX 19743	PORTLAND OR 97280-0743
48	RETURN SERVICE REQUESTED		1S1E03AD 3400	55 MAIN STREET LLC	5611 NE COLUMBIA BLVD	PORTLAND OR 97218
49	RETURN SERVICE REQUESTED		1S1E03AD 3400	THE DESIGN CENTER INC	55 SE MAIN ST	PORTLAND OR 97214
50	RETURN SERVICE REQUESTED		1S1E03AD 3500	SLOWFIRE INC	1201 SE 3RD AVE	PORTLAND OR 97214
51	RETURN SERVICE REQUESTED		1S1E03AD 3500	P & L WATER AVENUE LLC	2807 SE ASH ST	PORTLAND OR 97214
52	RETURN SERVICE REQUESTED	1S1E03AD 3700	OREGON STATE OF DEPT OF TRANSP	PORTLAND DEV COMM ATTN PROP MGMT	4040 FAIRVIEW INDUSTRIAL DR SE MS#2	SALEM OR 97303-1142
53	RETURN SERVICE REQUESTED		1S1E03AD 3800	OREGON STATE DEPT OF TRANSPORTATION	725 SUMMER ST #C	SALEM OR 97301-1266
54	RETURN SERVICE REQUESTED		1S1E03AD 3900	PORTLAND CITY OF	55 SW ASH ST	PORTLAND OR 97204-3509
55	RETURN SERVICE REQUESTED		1S1E03AD 4303	OREGON STATE OF	4040 FAIRVIEW INDUSTRIAL DR SE	SALEM OR 97302-1142
56	RETURN SERVICE REQUESTED		1S1E03AD 4400	BET WATER AVE LLC	25300 SW PARKWAY AVE	WILSONVILLE OR 97070
57	RETURN SERVICE REQUESTED		1S1E03AD 4400	A & F COLLISION LLC	50 SE MAIN ST	PORTLAND OR 97214
58	RETURN SERVICE REQUESTED		1S1E03AD 4500	LPM PROPERTIES LLC	60 SE MAIN ST	PORTLAND OR 97214
59	RETURN SERVICE REQUESTED		1S1E03AD 4500	OFF THE WALL MAGNETICS LLC	888 SW 5TH AVE #800	PORTLAND OR 97204
60	RETURN SERVICE REQUESTED		1S1E03AD 4600	HUMBER DESIGN GROUP INC	110 SE MAIN ST #200	PORTLAND OR 97214-5276
61	RETURN SERVICE REQUESTED		1S1E03AD 4600	GREENWORKS PC	110 SE MAIN ST #100	PORTLAND OR 97214-5276
62	RETURN SERVICE REQUESTED		1S1E03AD 4600	SE 2ND & MAIN LLC	4800 S MACADAM AVE #120	PORTLAND OR 97239
63	RETURN SERVICE REQUESTED		1S1E03AD 4800	PORTLAND CEMENT BUILDING LLC	4015 SE PINE ST	PORTLAND OR 97214
64	RETURN SERVICE REQUESTED		1S1E03AD 6300	DENNIS UNIFORM MFG CO INC	135 SE HAWTHORNE BLVD	PORTLAND OR 97214
65	RETURN SERVICE REQUESTED		1S1E03AD 6300	SHIPLEY DAVID J ET AL	135 SE HAWTHORNE BLVD	PORTLAND OR 97214
66	RETURN SERVICE REQUESTED		1S1E03AD 6400	GUARANTEED RATE INC	3940 N RAVENSWOOD AVE	CHICAGO IL 60613
67	RETURN SERVICE REQUESTED		1S1E03AD 6400	80 SE MADISON LLC	819 SE MORRISON ST #110	PORTLAND OR 97214-6308
68	RETURN SERVICE REQUESTED		1S1E03AD 6400	HEALTH NOTES INC	80 SE MADISON ST #410	PORTLAND OR 97214
69	RETURN SERVICE REQUESTED		1S1E03AD 6500	MADISON WATER LLC	819 SE MORRISON ST #110	PORTLAND OR 97214
70	RETURN SERVICE REQUESTED		1S1E03AD 6600	1420 WATER LLC	1615 SE 3RD AVE #100	PORTLAND OR 97214
71	RETURN SERVICE REQUESTED		1S1E03AD 6700	EVERGREENS INC	1200 WESTLAKE AVE N #210	SEATTLE WA 98109-3528
72	RETURN SERVICE REQUESTED		1S1E03AD 6700	PITMAN PROPERTIES III LLC	1535 SE 3RD AVE	PORTLAND OR 97214-3347
73	RETURN SERVICE REQUESTED		1S1E03AD 6700	NORANEKO LLC	215 SE 9TH AVE #102	PORTLAND OR 97214

	A	B	C	D	E	F
74	RETURN SERVICE REQUESTED		1S1E03AD 6700	PIONEER GAS FURNACE NORTHWEST INC	1430 SE WATER AVE #202	PORTLAND OR 97214
75	RETURN SERVICE REQUESTED		1S1E03AD 6800	MULTNOMAH COUNTY BRIDGE DEPARTMENT	401 N DIXON ST	PORTLAND OR 97227-1865
76	RETURN SERVICE REQUESTED		1S1E03AD 6900	MULTNOMAH COUNTY	2115 SE MORRISON ST	PORTLAND OR 97214-2865
77	RETURN SERVICE REQUESTED	1S1E03AD 7100	OREGON STATE OF DEPT OF TRANSP	PORTLAND DEVELOPMENT COMMISSION	9200 SE LAWNFIELD RD	CLACKAMAS OR 97015
78	RETURN SERVICE REQUESTED		1S1E03AD 7200	OREGON STATE OF LEASE DIST 2B	9200 SE LAWNFIELD RD	CLACKAMAS OR 97015-8685
79	RETURN SERVICE REQUESTED	PORTLAND CITY OF	EASTBANK COMMERCE CENTER LLC	BEAM CONSTRUCTION & MANAGEMENT LLC	75 SE YAMHILL ST #201	PORTLAND OR 97214
80	RETURN SERVICE REQUESTED		1S1E03AD 800	TEAM RON INCORPORATED	117 SE TAYLOR ST #102	PORTLAND OR 97214
81	RETURN SERVICE REQUESTED		1S1E03AD 800	CEID HOLDINGS LLC	PO BOX 12145	PORTLAND OR 97212-0145
82	RETURN SERVICE REQUESTED		1S1E03AD 900	BRUUN KELLY C TR	3611 SE 20TH AVE #300	PORTLAND OR 97202
83	RETURN SERVICE REQUESTED		1S1E03DA 1100	HAWTHORNE DEPOT LLC (5372)	1615 SE 3RD AVE #100	PORTLAND OR 97214
84	RETURN SERVICE REQUESTED		1S1E03DA 1200	PORTLAND TRACTION CO	1640 SE WATER AVE	PORTLAND OR 97214
85	RETURN SERVICE REQUESTED		1S1E03DA 1300	VIEWPOINT INC	PO BOX 3642510 DE GUIGNE DR	SUNNYVALE CA 94085
86	RETURN SERVICE REQUESTED		1S1E03DA 1400	MACKENZIE ENGINEERING INC	PO BOX 14310	PORTLAND OR 97293
87	RETURN SERVICE REQUESTED		1S1E03DA 1400	STATION L ROWING CLUB	PO BOX 14035	PORTLAND OR 97293
88	RETURN SERVICE REQUESTED	1S1E03DA 1400	OREGON STATE OF RIVERS EAST	INVESTOR LLC ATTN GVA KIDDER MATHEWS	1 SW COLUMBIA ST #950	PORTLAND OR 97204-4010
89	RETURN SERVICE REQUESTED		1S1E03DA 1400	ROSE CITY ROWING CLUB	1327 SE TACOMA ST PMB 224	PORTLAND OR 97202-6639
90	RETURN SERVICE REQUESTED		1S1E03DA 1400	RIVER EAST INVESTOR LLC	33 ARCH ST 26TH FLOOR	BOSTON MA 02110
91	RETURN SERVICE REQUESTED		1S1E03DA 1400	WASABI PADDLING CLUB	PO BOX 8217	PORTLAND OR 97207
92	RETURN SERVICE REQUESTED		1S1E03DA 1400	WILLAMETTE RIVERKEEPER	1515 SE WATER AVE #102	PORTLAND OR 97214-3349
93	RETURN SERVICE REQUESTED		1S1E03DA 1400	UNIVERSITY OF PORTLAND	5000 N WILLAMETTE BLVD	PORTLAND OR 97203
94				CURRENT RESIDENT	1001 SE WATER AVE #132	PORTLAND OR 97214
95				CURRENT RESIDENT	1001 SE WATER AVE #160	PORTLAND OR 97214
96				CURRENT RESIDENT	1001 SE WATER AVE #180	PORTLAND OR 97214
97				CURRENT RESIDENT	1001 SE WATER AVE #223	PORTLAND OR 97214
98				CURRENT RESIDENT	1001 SE WATER AVE #224	PORTLAND OR 97214
99				CURRENT RESIDENT	1001 SE WATER AVE #237	PORTLAND OR 97214
100				CURRENT RESIDENT	1001 SE WATER AVE #255	PORTLAND OR 97214
101				CURRENT RESIDENT	1001 SE WATER AVE #290	PORTLAND OR 97214
102				CURRENT RESIDENT	1001 SE WATER AVE #320	PORTLAND OR 97214
103				CURRENT RESIDENT	1001 SE WATER AVE #350	PORTLAND OR 97214
104				CURRENT RESIDENT	1001 SE WATER AVE #420	PORTLAND OR 97214
105				CURRENT RESIDENT	1001 SE WATER AVE #450	PORTLAND OR 97214
106				CURRENT RESIDENT	1001 SE WATER AVE #455	PORTLAND OR 97214
107				CURRENT RESIDENT	1016 SE WATER AVE	PORTLAND OR 97214
108				CURRENT RESIDENT	1028 SE WATER AVE #225	PORTLAND OR 97214
109				CURRENT RESIDENT	1028 SE WATER AVE #235	PORTLAND OR 97214
110				CURRENT RESIDENT	1028 SE WATER AVE #260	PORTLAND OR 97214
111				CURRENT RESIDENT	1028 SE WATER AVE #265	PORTLAND OR 97214
112				CURRENT RESIDENT	105 SE TAYLOR ST	PORTLAND OR 97214
113				CURRENT RESIDENT	109 SE SALMON ST #B	PORTLAND OR 97214
114				CURRENT RESIDENT	110 SE TAYLOR ST #D	PORTLAND OR 97214
115				CURRENT RESIDENT	111 SE MADISON ST #B	PORTLAND OR 97214
116				CURRENT RESIDENT	119 SE MAIN ST #101	PORTLAND OR 97214
117				CURRENT RESIDENT	119 SE MAIN ST #201	PORTLAND OR 97214
118				CURRENT RESIDENT	45 SE TAYLOR ST	PORTLAND OR 97214
119				CURRENT RESIDENT	66 SE MADISON ST	PORTLAND OR 97214
120				CURRENT RESIDENT	79 SE TAYLOR ST #100	PORTLAND OR 97214
121				CURRENT RESIDENT	80 SE MADISON ST #210	PORTLAND OR 97214
122				CURRENT RESIDENT	1001 SE WATER AVE #190	PORTLAND OR 97214
123				CURRENT RESIDENT	1001 SE WATER AVE #217	PORTLAND OR 97214
124				CURRENT RESIDENT	1001 SE WATER AVE #244	PORTLAND OR 97214
125				CURRENT RESIDENT	1001 SE WATER AVE #245	PORTLAND OR 97214
126				CURRENT RESIDENT	1001 SE WATER AVE #247	PORTLAND OR 97214
127				CURRENT RESIDENT	1001 SE WATER AVE #262	PORTLAND OR 97214
128				CURRENT RESIDENT	1001 SE WATER AVE #285	PORTLAND OR 97214
129				CURRENT RESIDENT	1001 SE WATER AVE #300	PORTLAND OR 97214
130				CURRENT RESIDENT	1001 SE WATER AVE #310	PORTLAND OR 97214
131				CURRENT RESIDENT	1001 SE WATER AVE #340	PORTLAND OR 97214
132				CURRENT RESIDENT	1001 SE WATER AVE #360	PORTLAND OR 97214
133				CURRENT RESIDENT	1001 SE WATER AVE #370	PORTLAND OR 97214
134				CURRENT RESIDENT	1001 SE WATER AVE #410	PORTLAND OR 97214
135				CURRENT RESIDENT	1001 SE WATER AVE #430	PORTLAND OR 97214
136				CURRENT RESIDENT	1001 SE WATER AVE #435	PORTLAND OR 97214
137				CURRENT RESIDENT	1001 SE WATER AVE #460	PORTLAND OR 97214
138				CURRENT RESIDENT	1028 SE WATER AVE #230	PORTLAND OR 97214
139				CURRENT RESIDENT	1028 SE WATER AVE #238	PORTLAND OR 97214
140				CURRENT RESIDENT	1028 SE WATER AVE #286	PORTLAND OR 97214
141				CURRENT RESIDENT	109 SE SALMON ST #101	PORTLAND OR 97214
142				CURRENT RESIDENT	109 SE SALMON ST #A	PORTLAND OR 97214
143				CURRENT RESIDENT	110 SE MAIN ST #A	PORTLAND OR 97214
144				CURRENT RESIDENT	110 SE TAYLOR ST #A	PORTLAND OR 97214
145				CURRENT RESIDENT	110 SE TAYLOR ST #B	PORTLAND OR 97214
146				CURRENT RESIDENT	117 SE TAYLOR ST #201	PORTLAND OR 97214

	A	B	C	D	E	F
147				CURRENT RESIDENT	117 SE TAYLOR ST #301	PORTLAND OR 97214
148				CURRENT RESIDENT	135 SE MAIN ST #102	PORTLAND OR 97214
149				CURRENT RESIDENT	1420 SE WATER AVE	PORTLAND OR 97214
150				CURRENT RESIDENT	1430 SE WATER AVE #203	PORTLAND OR 97214
151				CURRENT RESIDENT	1430 SE WATER AVE #206	PORTLAND OR 97214
152				CURRENT RESIDENT	1430 SE WATER AVE #207	PORTLAND OR 97214
153				CURRENT RESIDENT	1433 SE WATER AVE	PORTLAND OR 97214
154				CURRENT RESIDENT	1515 SE WATER AVE #101	PORTLAND OR 97214
155				CURRENT RESIDENT	1515 SE WATER AVE #103	PORTLAND OR 97214
156				CURRENT RESIDENT	1515 SE WATER AVE #201	PORTLAND OR 97214
157				CURRENT RESIDENT	5 SE MADISON ST	PORTLAND OR 97214
158				CURRENT RESIDENT	60 SE MADISON ST	PORTLAND OR 97214
159				CURRENT RESIDENT	79 SE TAYLOR ST #402	PORTLAND OR 97214
160				CURRENT RESIDENT	80 SE MADISON ST #6	PORTLAND OR 97214
161				CURRENT RESIDENT	1001 SE WATER AVE #110	PORTLAND OR 97214
162				CURRENT RESIDENT	1001 SE WATER AVE #130	PORTLAND OR 97214
163				CURRENT RESIDENT	1001 SE WATER AVE #135	PORTLAND OR 97214
164				CURRENT RESIDENT	1001 SE WATER AVE #205	PORTLAND OR 97214
165				CURRENT RESIDENT	1001 SE WATER AVE #230	PORTLAND OR 97214
166				CURRENT RESIDENT	1001 SE WATER AVE #250	PORTLAND OR 97214
167				CURRENT RESIDENT	1001 SE WATER AVE #305	PORTLAND OR 97214
168				CURRENT RESIDENT	1001 SE WATER AVE #390	PORTLAND OR 97214
169				CURRENT RESIDENT	1001 SE WATER AVE #440	PORTLAND OR 97214
170				CURRENT RESIDENT	1001 SE WATER AVE #490	PORTLAND OR 97214
171				CURRENT RESIDENT	1028 SE WATER AVE #140	PORTLAND OR 97214
172				CURRENT RESIDENT	1028 SE WATER AVE #145	PORTLAND OR 97214
173				CURRENT RESIDENT	1028 SE WATER AVE #210	PORTLAND OR 97214
174				CURRENT RESIDENT	1028 SE WATER AVE #240	PORTLAND OR 97214
175				CURRENT RESIDENT	1028 SE WATER AVE #245	PORTLAND OR 97214
176				CURRENT RESIDENT	1028 SE WATER AVE #50	PORTLAND OR 97214
177				CURRENT RESIDENT	105 SE HAWTHORNE BLVD	PORTLAND OR 97214
178				CURRENT RESIDENT	111 SE MADISON ST #A	PORTLAND OR 97214
179				CURRENT RESIDENT	117 SE TAYLOR ST #2	PORTLAND OR 97214
180				CURRENT RESIDENT	119 SE MAIN ST #202	PORTLAND OR 97214
181				CURRENT RESIDENT	119 SE MAIN ST #203	PORTLAND OR 97214
182				CURRENT RESIDENT	119 SE MAIN ST #206	PORTLAND OR 97214
183				CURRENT RESIDENT	1216 SE WATER AVE	PORTLAND OR 97214
184				CURRENT RESIDENT	135 SE MAIN ST #101	PORTLAND OR 97214
185				CURRENT RESIDENT	1450 SE WATER AVE	PORTLAND OR 97214
186				CURRENT RESIDENT	1515 SE WATER AVE #104	PORTLAND OR 97214
187				CURRENT RESIDENT	1515 SE WATER AVE #300	PORTLAND OR 97214
188				CURRENT RESIDENT	1515 SE WATER AVE #402	PORTLAND OR 97214
189				CURRENT RESIDENT	49 SE CLAY ST	PORTLAND OR 97214
190				CURRENT RESIDENT	77 SE YAMHILL ST	PORTLAND OR 97214
191				CURRENT RESIDENT	1001 SE WATER AVE #121	PORTLAND OR 97214
192				CURRENT RESIDENT	1001 SE WATER AVE #122	PORTLAND OR 97214
193				CURRENT RESIDENT	1001 SE WATER AVE #200	PORTLAND OR 97214
194				CURRENT RESIDENT	1001 SE WATER AVE #210	PORTLAND OR 97214
195				CURRENT RESIDENT	1001 SE WATER AVE #236	PORTLAND OR 97214
196				CURRENT RESIDENT	1001 SE WATER AVE #240	PORTLAND OR 97214
197				CURRENT RESIDENT	1001 SE WATER AVE #246	PORTLAND OR 97214
198				CURRENT RESIDENT	1001 SE WATER AVE #260	PORTLAND OR 97214
199				CURRENT RESIDENT	1010 SE WATER AVE	PORTLAND OR 97214
200				CURRENT RESIDENT	1028 SE WATER AVE #250	PORTLAND OR 97214
201				CURRENT RESIDENT	1028 SE WATER AVE #255	PORTLAND OR 97214
202				CURRENT RESIDENT	1028 SE WATER AVE #275	PORTLAND OR 97214
203				CURRENT RESIDENT	1028 SE WATER AVE #280	PORTLAND OR 97214
204				CURRENT RESIDENT	1028 SE WATER AVE #285	PORTLAND OR 97214
205				CURRENT RESIDENT	109 SE SALMON ST #C	PORTLAND OR 97214
206				CURRENT RESIDENT	110 SE MAIN ST #C	PORTLAND OR 97214
207				CURRENT RESIDENT	116 SE YAMHILL ST	PORTLAND OR 97214
208				CURRENT RESIDENT	1221 SE WATER AVE	PORTLAND OR 97214
209				CURRENT RESIDENT	1430 SE WATER AVE #204	PORTLAND OR 97214
210				CURRENT RESIDENT	1510 SE WATER AVE	PORTLAND OR 97214
211				CURRENT RESIDENT	1515 SE WATER AVE #400	PORTLAND OR 97214
212				CURRENT RESIDENT	79 SE TAYLOR ST #401	PORTLAND OR 97214
213	RETURN SERVICE REQUESTED		OWNER	PDC DBA PROSPER PORTLAND	220 NW 2ND AVE #200	PORTLAND OR 97209
214	RETURN SERVICE REQUESTED	OWNERS AGENT	PDC DBA PROSPER PORTLAND	GAGLIARDI PAUL	222 NW 5TH AVE	PORTLAND OR 97209-3812
215	RETURN SERVICE REQUESTED	APPLICANT	BEAM DEVELOPMENT	MALSIN JONATHAN	1001 SE WATER AVE #400	PORTLAND OR 97214
216	RETURN SERVICE REQUESTED	CONTACT PERSON	MACKENZIE	STANLEY SUZANNAH	1515 SE WATER AVE #100	PORTLAND OR 97214
217	RETURN SERVICE REQUESTED	APPELLANT	MUSICPORTLAND	DUNPHY JAMIE	2332 NE WASCO ST	PORTLAND OR 97232
218	RETURN SERVICE REQUESTED	APELLANTS REPRESENTATIVE	BATEMAN SEIDEL	RICHTER CARRIE	1000 SW BROADWAY #1910	PORTLAND OR 97205
219	RETURN SERVICE REQUESTED		DISTRICT 4	GARRETT DARLENE URBAN	434 NW 6TH AVE #202	PORTLAND OR 97209

	A	B	C	D	E	F
220	RETURN SERVICE REQUESTED		PORTLAND DOWNTOWN NA	DEBARDELABEN MARIAN	434 NW 6TH AVE #202	PORTLAND OR 97209
221	RETURN SERVICE REQUESTED		LAND USE CONTACT	DISTRICT 3	3534 SE MAIN ST	PORTLAND OR 97214
222	RETURN SERVICE REQUESTED		DOWNTOWN RETAIL COUNCIL	MEAD SYDNEY	121 SW SALMON ST #1440	PORTLAND OR 97201
223	RETURN SERVICE REQUESTED		LAND USE CONTACT	PIONEER COURTHOUSE SQ	715 SW MORRISON #702	PORTLAND OR 97205
224	RETURN SERVICE REQUESTED		BUCKMAN COMMUNITY ASSOCIATION	OLSON NICK	3534 SE MAIN ST	PORTLAND OR 97214
225	RETURN SERVICE REQUESTED		LAND USE CONTACT	CENTRAL CITY CONCERN	232 NW 6TH AVE	PORTLAND OR 97209
226	RETURN SERVICE REQUESTED		HOSFORD-ABERNETHY NEIGHBORHOOD DIST	(HAND) WADE MICHAEL	3534 SE MAIN ST	PORTLAND OR 97214
227	RETURN SERVICE REQUESTED		PORTLAND METRO REGIONAL SOLUTIONS	C/O DLCD REGIONAL REPRESENTATIVE	1600 SW FOURTH AVE #109	PORTLAND OR 97201
228	RETURN SERVICE REQUESTED		LAND USE CONTACT	PORT OF PORTLAND PLANNING	PO BOX 3529	PORTLAND OR 97208
229	RETURN SERVICE REQUESTED		LAND USE CONTACT	TRANSIT DEVELOPMENT	1800 SW FIRST AVE #300	PORTLAND OR 97201
230	RETURN SERVICE REQUESTED			KARLA MOORE-LOVE (CITY HALL)	1221 SW 4TH AVE #130	PORTLAND OR 97204
231	RETURN SERVICE REQUESTED		RISK & LAND DEPARTMENT	NW NATURAL	250 SW TAYLOR ST	PORTLAND OR 97204-3038
232	RETURN SERVICE REQUESTED		LAND USE CONTACT	PACIFIC POWER & LIGHT	7544 NE 33RD DR	PORTLAND OR 97211
233	RETURN SERVICE REQUESTED		LAND USE CONTACT	JUDY PETERS	6916 NE 40TH ST	VANCOUVER WA 98661
234	RETURN SERVICE REQUESTED		MULT CO BRIDGE - 100 FOOT BUFFER	MULTNOMAH COUNTY BRIDGES	1403 SE WATER AVENUE	PORTLAND OR 97217
235	RETURN SERVICE REQUESTED		PORTLAND SCHOOL DISTRICT	LAND USE NOTICE CONTACT	501 N DIXON	PORTLAND OR 97227
236				LAND USE CONTACT	PORTLAND POLICE BUREAU	B119/R1552
237				LAND USE CONTACT	PROSPER PORTLAND	129/PROSPER
238				PORTLAND PARK TRAIL	TATE WHITE	B106/R1302
239					COMMUNICATIONS MANAGER (911/COMM)	911/COMM

City of Portland, Oregon - Portland Permitting & Development

1900 SW Fourth Avenue • Portland, Oregon 97201 | 503-823-7300 | www.portland.gov/ppd

Type III Decision Appeal Form

LU Number: 23-111784 CU AD

FOR INTAKE, STAFF USE ONLY

Date/Time Received _____ ❑ **Action Attached** _____

Received By _____ **Fee Amount** _____

Appeal Deadline Date _____ ☐ Y ☐ N **Fee Waived**

❑ **Entered in Appeal Log** _____ **Bill #** _____

❑ **Notice to Auditor** _____ ☐ Y ☐ N **Unincorporated MC**

❑ **Notice to Dev. Review** _____

APPELLANT: Complete all sections below. Please print legibly.

PROPOSAL SITE ADDRESS SE Water between Salmon and Mail **DEADLINE OF APPEAL** 8/28/24

Name MusicPortland

Address 2332 NE Wasco St **City** Portland **State/Zip Code** 97232

Day Phone _____ **Email** info@MusicPortland.com **Fax** _____

Interest in proposal (applicant, neighbor, etc.) Economic and Social Impact Stakeholder

Identify the specific approval criteria at the source of the appeal:

Zoning Code Section 33. 815 . 215 **Zoning Code Section 33.** _____ . _____

Zoning Code Section 33. 805 . 040 **Zoning Code Section 33.** _____ . _____

Describe how the proposal does or does not meet the specific approval criteria identified above or how the City erred procedurally:

See attached page

Appellant's Name Jamie Dunphy, Board Member and authorized rep, MusicPortland ■

I acknowledge this typed name as my signature

FILE THE APPEAL - Submit the following:

- ■ This completed appeal form
- ■ A copy of the Type III Decision being appealed
- ■ An appeal fee as follows:
  - ■ Appeal fee as stated in the Decision, payable to City of Portland
  - ❑ Fee waiver for Civic Life Recognized Organizations approved (see instructions under Appeals Fees A on back)
  - ❑ Fee waiver request letter for low income individual is signed and attached
  - ❑ Fee waiver request letter for Unincorporated Multnomah County recognized organizations is signed and attached

Email this application and supporting documents to: LandUseIntake@portlandoregon.gov

To file the appeal, this completed application form and any supporting documentation must be emailed to LandUseIntake@portlandoregon.gov and to the planner listed on the first page of the Decision. To be valid, the City must receive the appeal by 4:30 p.m. on the deadline listed in the Decision. Once the completed appeal application form is received, a Land Use Services Technician will contact you with instructions on how to pay the fee.

The Portland City Council will hold a hearing on this appeal. The land use review applicant, those who testified and everyone who received notice of the initial hearing will receive notice of the appeal hearing date.

Information about the appeal hearing procedure and fee waivers is on the back of this form.

Type III Appeal Hearing Procedure

A Type III Decision may be appealed only by the applicant, the owner, or those who have testified in writing or orally at the hearing, provided that the testimony was directed to a specific approval criterion, or procedural error made. It must be filed with the accompanying fee by the deadline listed in the decision. The appeal request must be submitted on the Type III Appeal Form provided by the City and it must include a statement indicating which of the applicable approval criteria the decision violated (33.730.030) or what procedural errors were made. If the decision was to deny the proposal, the appeal must use the same form and address how the proposal meets all the approval criteria. There is no local Type III Appeal for cases in unincorporated Multnomah County.

Appeal Hearings for Type III Decisions are scheduled by the City Auditor at least 21 days after the appeal is filed and the public notice of the appeal has been mailed.

Appellants should be prepared to make a presentation to the City Council at the hearing. In addition, all interested persons will be able to testify orally, or in writing. The City Council may choose to limit the length of the testimony. Prior to the appeal hearing, the City Council will receive the written case record, including the appeal statement. The City Council may adopt, modify, or overturn the decision of the review body based on the information presented at the hearing or in the case record.

Appeal Fees

In order for an appeal to be valid, it must be submitted prior to the appeal deadline as stated in the decision and it must be accompanied by the required appeal fee or an approved fee waiver. The fee to appeal a decision is one-half of the original Portland Permitting & Development Land Use Services application fee. The fee amount is listed in the decision. The fee may be waived as follows:

Fee Waivers (33.750.050)

The director may waive required fees for Office of Community & Civic Life Recognized Organizations and for low-income applicants when certain requirements are met. The decision of the director is final.

A. Office of Community & Civic Life Recognized Organizations Fee Waiver

Neighborhood or business organizations recognized by the City of Portland Office of Comunity & Civic Life or Multnomah County are eligible to apply for an appeal fee waiver if they meet certain meeting and voting requirements.

These requirements are listed in the Type III Appeal Fee Waiver Request for Organizations form and instruction sheet available from the Development Services Center, 1st floor, 1900 SW 4th, Portland, OR 97201. Recognized organizations must complete the Type III Appeal Fee Waiver Request for Organizations form and submit it prior to the appeal deadline to be considered for a fee waiver.

B. Low Income Fee Waiver

The appeal fee may be waived for an individual who is an applicant in a land use review for their personal residence, in which they have an ownership interest, and the individual is appealing the decision of their land use review application. In addition, the appeal fee may be waived for an individual residing in a dwelling unit, for at least 60 days, that is located within the required notification area. Low income individuals requesting a fee waiver will be required to certify their annual gross income and household size. The appeal fee will only be waived for households with a gross annual income of less than 50 percent of the area median income as established and adjusted for household size by the federal Department of Housing and Urban Development (HUD). All financial information submitted to request a fee waiver is confidential. Fee waiver requests must be approved prior to appeal deadline to be considered for a fee waiver.

NOTICE OF APPEAL

City File Number: LU 23-111784

Appellant: MusicPortland
2332 NE Wasco Street
Portland, OR 97232

Legal Representative: Carrie Richter
Bateman Seidel
1000 SW Broadway #1910
Portland, OR 97205
503-972-9920
crichter@batemanseidel.com

Statement of Standing: MusicPortland is a nonprofit organization providing a voice for Portland's independent music industry, which currently provides over 20,000 jobs, nearly $1 billion in labor income, and over $4 billion in local economic activity. MusicPortland representatives testified both orally and in writing during the hearings officer's review.

Statement of which sections of the Zoning Code the decision violates includes, but may not be limited to:

1) ZC 33.815.215(A)(3) –
    a. Unpredictable and lengthy train crossings will interfere with the transportation demands created by 3,500 concert attendees needing to access transit, parking and rideshare options.
    b. This transportation system adequacy criterion requires evaluation of any transportation impacts and mitigation, particularly off-site mitigation, and must extend beyond general PBOT policies and standards that would otherwise apply to uses permitted outright.
    c. Blanket deferral to PBOT analysis is inadequate where it does not respond to expert transportation engineer testimony identifying inadequacies in the analysis.
2) ZC 33.815.215(B)-
    a. Compatibility in massing and lot coverage alone does not convey the Central Eastside industrial design character. What distinguishes this industrial character is a smooth stucco finish often with highly stylized murals or windows. A "modern" design," whatever that is and angled roof lines is not consistent with any of the surrounding structures.
3) ZC 33.815.215(C)-
    a. By its plain language, this criterion is focused on "any impacts that cannot be mitigated." This open-ended "any" language is not constrained in any respect and most certainly can and should consider economic and social impacts following from this use. Allowing a use that will introduce a scourge of anticompetitive operations that will injure artists, fans, small promoters and venue operators that will cause real and tangible harm.
    b. The "use" in this case is not just any event venue but is a use that has been designed and will be constructed through ongoing public subsidy to meet and further Live Nation's monopolistic business model. The expenditure of individual taxpayer dollars in this effort demands a greater showing of public benefit than might be required of

private development. This criterion confers on the Council discretion to interpret and apply the public benefit test more broadly or more rigorously on a case-by-case basis as the facts may dictate.

c. The comparator called for in this criterion is not whether the public benefits of this use outweigh externalities resulting from the property in its vacant and unused state. All of the public benefits identified by the applicant as contributing to Central City are entertainment and leisure-focus objectives that do not further any of the objectives for an industrial zone.

4) ZC 33.805.040(A)-
   a. Allowing trucks to back across SE Water Avenue and park in SE Main Street will block and prevent all "other transportation functions" and compromise the safety of pedestrians, bicycle and vehicles. No conditions of approval mandate the use of flaggers. Any other preventive measures such as signage will likely prove insufficient because drivers in this area are, according to the applicant's TIA, "inattentive."
   b. The suggestion that "the street would not have the appearance of a loading area when not in use" is belied by uncontroverted testimony that this loading area would nearly always be in use.
   c. Ecoroofs are required because they provide water quality, climate and wildlife objectives. Those objectives are not better met by street trees and roof canopy planters making the site more green than it is today or more green than surrounding development. This finding is not only non-responsive to the language of the standard is particularly problematic since staff found that a revised roof design would accommodate greater ecoroof coverage.
5) ZC 33.805.040(B)-
   a. The desired character of the area is set by the Buckman Neighborhood Plan policies, among other things. Plan Objective 5.10 expressly prohibits truck loading that blocks streets.

Appeal fee is enclosed.

Portland City Auditor
Hearings Office

HearingsOfficeClerks@PortlandOregon.gov

503-823-7307

DECISION OF THE HEARINGS OFFICER

I. GENERAL INFORMATION

File Number: **LU 23-111784 CU AD (Hearings Office # 4240010)**

Applicant's Representative: Suzannah Stanley Mackenzie
1515 SE Water Ave., Ste. 100
Portland OR 97214
(971) 346-3808
sstanley@mcknze.com

Applicant: Johnathan Malsin
Beam Development
1001 SE Water Ave., Ste. 400
Portland, OR 97214

Property Owner's Agent: Paul Gagliardi
PDC dba Prosper Portland
222 NW 5th Ave.
Portland, OR 97209

Property Owner: PDC dba Prosper Portland
220 NW 2nd Ave. #200
Portland, OR 97209

Hearings Officer: William Guzman

Bureau of Development Services (BDS) Staff Representative: Andrew Gulizia

Site Address: west side of SE Water Ave. between SE Salmon St. and SE Main St.

Legal Description: LOT 1 TL 3602, PARTITION PLAT 2016-7; LOT 1 TL 4305, PARTITION PLAT 2016-8; LOT 1 TL 1705, PARTITION PLAT 2016-

Tax Account Number: R649670250, R649670290, R649670330

State ID Number: 1S1E03AD 03602, 1S1E03AD 04305, 1S1E03AD 01705

Quarter Section: 3130

Neighborhood: Buckman, contact John Rose or Josh Baker at buckmanlandusepdx@gmail.com

Business District: Central Eastside Industrial Council, contact ceic@ceic.cc.

District Coalition: Southeast Uplift, contact at operations@seuplift.org

Plan District: Central City (Central Eastside Subdistrict)

Zoning: IG1 – General Industrial 1

Land Use Review: Type III, CU AD Conditional Use Review and Adjustment Review

Public Hearing: The hearing was opened at 1:01 pm on July 10, 2024, via the Zoom platform and ended at 3:51 pm. The record was held opened until 4:30 p.m. Jully 17, 2024 for new evidence, 4:30 p.m. July 24, 2024 for Rebuttal Response to new evidence and until 4:30 p.m. July 31, 2024 for Applicant final argument/rebuttal. The record was closed on July 31, 2024.

Testified at the Hearing:

Andrew Gulizia
Damien Hall
Michael Pina
Carolyne Holcomb
Patrick Fleming
Preston Greene
Jaime Dunphy
Marshall Runkel
Tom Lipton
Bob Sallinger
Logan Vickery
Sheena Taylor
Joseph Perez

Initial Proposal:
At the time of the Hearing the applicant proposed to construct a new, 62,000-square-foot building on this site to be used as a concert venue with 1,280 seats and a maximum spectator capacity of 3,500. The applicant requests Conditional Use Review approval for a new Major Event Entertainment use in the IG1 zone. Type III Conditional Use Review is required by Zoning Code Sections 33.140.100.C and 33.815.040.A.1. The applicant also requests approval of two Adjustments to Zoning Code requirements for this project:

• To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c).

• To reduce the amount of ecoroof area required (Zoning Code Section 33.510.243.B.1).

Relevant Approval Criteria:
To be approved, this proposal must comply with the approval criteria of Title 33, the Portland Zoning Code. The applicable approval criteria are:

• Zoning Code Section 33.815.215.A-D (Conditional Use Review); and
• Zoning Code Section 33.805.040.A-F (Adjustment Review).

II. ANALYSIS

The Record
The record in this matter includes all Exhibits from the Planner's file marked A – G (no F Exhibits) and any Hearings Office Exhibits received marked Exhibits H-1 through H-54. Applicant objects to Exhibit H-41 as being submitted during the period to respond to new evidence but not being responsive to any submission during the initial open record period. The Hearings Officer finds that the transportation-related issues raised arguably touch upon or expand upon Exhibit 35 (which was submitted during the open record period) and can be considered timely and responsive. The record also includes all testimony received during the Hearing held on July 10, 2024; an audio recording of this Hearing is available online. Note that some submissions included links to outside websites or files. These are not part of the record and the information on these links was not viewed by the Hearings Officer.

Changes to Proposal, Notice of Hearing, and Motion(s) Continuance
Title 33.730.030 governs Type III Procedures stating: "A Type III procedure requires a public hearing before an assigned review body." Subsections B, E, and F govern neighborhood contact and notice requirements, notice of a request, and decision by review body if site is in City of Portland.

Some comments suggest that notice was inadequate or that a continuance is necessary given some testimony at the hearing. For example, Exhibit H33 suggests the following:

> "At the hearing, another regulatory mechanism for enabling the applicant to use the public right-of-way for loading was suggested. If another method is being proposed, the Hearings [Officer] must reopen the record to allow the correct regulatory mechanism to be evaluated by all parties."

In Exhibit H39 the author argues:

> "[T]he city did the bare minimum on outreach required by law and failed to reach out to either groups involved in the Central City Plan or the Green Roof Mandate. While this may not be required, the city is well aware of groups that have vested interest in this issue. This project is too big and too high profile for the city to rely on minimum outreach requirements."

The Hearings Officer finds that the City provided legally sufficient notice of the Applicant's proposal through the notice of Hearing to satisfy Title 33 based on the City's testimony and the following statement in the Staff Report: "Signs notifying neighbors of the public hearing were posted on June 6, 2024 (Exhibit D-3) and a 'Notice of Public Hearing' was mailed to neighbors on June 20, 2024 (Exhibits D-4 and D-5)."

Regarding changes that require a continuance of a Hearing, the Administrative Rules governing City of Portland land use Hearings include the following instruction in ADM 9.02.K set forth below for easy reference (Changes to a Land Use Application or Applicable Criteria):

> 1. The Hearings Officer may consider a substantial change to a land use application or applicable criteria, made after the Bureau issues the staff report, only if the applicant submits a signed waiver of the 120-day deadline for final action on the application.
>
> 2. If an application is amended and the hearing notice no longer accurately describes the amended application, the Bureau must issue a new hearing notice.

The Hearings Officer finds that the testimony and suggested amendments do not rise to a substantial change in the application, the applicable criteria are the same as prior to the Hearing, and the hearing notice still accurately describes the proposal. The Hearings Officer denies an additional open record period and denies a continuance of the Hearing.

City Bureau Responses

The City Bureaus were invited to submit a response or objection to the applicant's proposal and request for adjustments. A "Request for Response" was sent to City agencies May 29, 2024 (Exhibit D-1). The following City reviewers responded:

- The Bureau of Environmental Services (BES) evaluated the approval criterion related to sanitary sewer service and stormwater disposal. The response is referenced in the findings for Zoning Code Section 33.815.215.A.4, below. (Exhibit E-1)

- PBOT evaluated the approval criteria related to the transportation system. The response is referenced in the findings for Zoning Code Section 33.815.215.A.1-3, below. (Exhibit E-2)

- The Water Bureau responded with no concerns. (Exhibit E-3)

- The Fire Bureau responded with information on building permit requirements and no objections to approval. (Exhibit E-4)

- The Police Bureau responded that police can adequately serve the proposed development. (Exhibit E-5)

- The Site Development Review Section of the Bureau of Development Services (BDS) responded with information on building permit requirements and no objections to approval. (Exhibit E-6)
- The Life Safety Review Section of BDS responded with information on building permit requirements and no objections to approval. (Exhibit E-7)

- The Urban Forestry Division of the Parks Bureau responded with information on street tree requirements and no objections to the land use review proposal. (Exhibit E-8)

The Opposition and Decision

City Council drafts Title 33 and provided the following direction to the Hearings Officer deciding this Title 33 land use application. Title 33.730.030.F.3: "The review body may adopt the Director of BDS's report and recommendation, modify it, or reject it based on information presented at the hearing and in the record."

The City's recommendation in the Staff Report (Exhibit H-5), based in part on the lack of opposition from the City bureaus, is to approve the proposal with adjustments granted and the inclusion of several conditions. The Staff Report is modified by Exhibit H-6's suggested condition of approval (PBOT Memo). The Applicant agrees with the findings and recommendation of approval contained in the Staff Report and Recommendation and is also amenable to imposition of the revised conditions of approval in the Staff Memo. The City Bureaus have no objections and only suggested conditions.

After independently reviewing the record and the applicable approval criteria the Hearings Officer adopts the Staff Report and its recommendation of approval. The Hearings Officer finds the City's analysis thorough and persuasive.

Therefore, this decision is going to focus on the opposition to the proposal to document the issues and explain why the Hearings Officer ultimately ruled to approve the proposal despite issues raised by the public. In full disclosure and transparency, throughout this decision the Hearings Officer liberally utilizes text from sources in the record deemed persuasive and adopts the text either through copy/paste feature or by reference.

Bike Parking

Initially, Applicant sought a third Adjustment request to Zoning Code Section 33.266.200.B.1 to reduce the minimum number of on-site, short-term bike parking spaces from 32 to zero. The applicant had proposed to construct bike parking in the public right-of-way adjacent to the site as justification for this Adjustment. After discussion with the Portland Bureau of Transportation (PBOT), the applicant decided to withdraw this Adjustment request (Exhibit G-3).

At the time of the Hearing and as described in the Staff Report, the proposal is for the applicant to pay into PBOT's bike parking fund when the building permit is issued, as required by Zoning Code Section 33.266.210.E.1.b when there is insufficient space on-site to provide the required short-term bike parking. PBOT would then construct and maintain bike parking in

the public right-of-way. The public is often critical of payment of funds in lieu of strictly adhering to development standards. This criticism must be lodged with City Council who are the elected officials with authority to legislate the opportunity to choose a payment into the fund. It would be an overreach by the quasi-judicial Hearings Officer to unilaterally foreclose this avenue to approval.

In Exhibit H19 Bike Loud (through Aaron Kuehn, Board Chair of BikeLoudPDX) raises a couple concerns regarding construction interruptions and the width of Salmon street suggesting the following recommendations:

> "Bike racks are installed diagonally to reduce handlebar conflicts.
> Security, lighting, and covering for short-term bicycle parking.
> Electrical outlets for e-bike charging, and larger spaces for cargo bike parking.
> All bicycle parking is ready for the very first event at this concert venue.
> Bike racks could be installed on concrete panels with tree wells in between."

PBOT's representative responded to these recommendations and concerns in an email included in the record marked Exhibit H34. This exhibit also includes Bike Loud's continued objection considering their concerns unresolved.

The Hearings Officer notes the following from PBOT's submission included in the Staff Report (Exhibit H5 at page 8):

> "In accordance with 17.88.020, the proposed project will be required to dedicate and reconstruct the abutting frontages to City standards by providing a 12-ft wide pedestrian corridor along SE Salmon and SE Main streets, and a 15-ft wide corridor along SE Water Street. These improvements will be reviewed through a Public Works permit, which is to receive 30 percent concept approval and bond payment prior to issuance of the building permit. Additional frontage improvements such as street lighting, striped pedestrian crossings, curb extensions, signage, and preparation of ROW bike parking will also be evaluated at time of Public Works permit review."

In Exhibit H34 PBOT confirms the bike racks get installed diagonally: "By paying into the bike fund, PBOT will install a bank of bike corals along the site's SE Salmon frontage. Standard bike coral racks are already installed diagonally to reduce handlebar conflicts[.]"

In Exhibit H34 PBOT responds:

> "The applicant remains responsible for monitoring bicycle usage and taking additional TDM measures to mitigate the demand. Creating a "Woonerf" or other plaza treatment could be a possibility, but that would be reviewed as either Capitol Improvement Project (CIP) or future partnership with the venue; not associated with this particular Conditional Use development."

Regarding the timing of the installation the Staff Report includes PBOT's goal: "As noted above, all required frontage improvements, payment into the bike fund, and implementation of TDM strategies will be in place by the time the development is complete."

Lastly, the Hearings Officer approves of the PBOT suggested condition agreed to by the Applicant:

> "The applicant must assess the bike parking capacity on an annual basis for the first 3 years after the concert venue begins operation and then every other year after that ending with year 11. That assessment must include bike count averages for events throughout the year. The applicant must send their assessment to PBOT Development Review and PBOT Active Transportation and Safety. If demand consistently exceeds the provided bike parking, the applicant must work with PBOT on remedies, including but not limited to adding additional bike racks or a contract for offering temporary bike racks during events."

In Bike Loud's continued objection they suggest the following: "[We] are not satisfied that this project will improve an already dangerous streetscape or address bicycle parking concerns." The Applicant is not responsible for preexisting conditions in the area that are already causing a dangerous streetscape and all of the bicycle parking concerns were addressed. The Hearings Officer agrees that there can always be more that is done to improve conditions on the ground for bike rider safety but there is only so much that can be accomplished through a land use application and only so much cost for improvements that can be imposed on the developer (example, public right of way improvements and dedications). The Hearings Officer's review of the applicable approval criteria and the proposed conditions lead to the conclusion that the applicable approval criteria have been met.

Train Crossings

The Hearings Officer finds that there are train tracks and crossings in the area of the proposed development. Some of the testimony at the Hearing included concerns about individuals who attend music events climbing over stopped trains to cross the tracks. Additional, written testimony also raised train crossing concerns. For example, in Exhibit H26 a local business owner raised a concern with traffic impacts and safety:

> "What considerations has the proposed development taken in regarding traffic flow and grid lock with the train? As a business owner, I have witnessed and experienced the effects of the train being stopped for up to 40 minutes. Imagine 3,500 people trying to get to a concert and the train is stopped or a band is trying to get to a venue to set up for sound check. I imagine this causing stress and chaos on both ends. The traffic that gets backed up on to I-5 is already a fiasco."

In Exhibit H32 the opposition includes the following written testimony for consideration:

> "Freight trains go thru this area every day, sometimes at slow speed and sometimes faster. They often stop and remain stationary for an indeterminate amount of time. If a concert gets out at 11pm and the train is sitting there for 30 minutes, do you expect people not to cross the tracks to get to their cars? What considerations has the proposed development taken in regarding traffic flow and grid lock with the train? I have personally experienced the effects of the train being stopped for up to 40 minutes. Imagine 3,500 people trying to get to a concert or a band is trying to get to a venue to set up for sound check and the train is stopped. I imagine this causing stress and chaos on both ends. BEAM Development and Colas Development Group, as city planners, must take into account that the train tracks are a major point of concern with this location. Expecting 3500 people to fill the sidewalks and unsafe streets, while passing over live freight train tracks is irresponsible at best."

In Exhibit H33 the following is submitted for consideration:

> "It is impossible for a major entertainment use to meet this important criterion at this site because it is an inherently unsafe place to attract significant new pedestrian [traffic] because of its proximity to train [traffic] that has killed two pedestrians and injured another in the past five years according to the [Staff] Report and Recommendation to the Hearings [Officer].
>
> * * *
>
> During the periods when trains are stopped at crossings, pedestrians regularly choose to ignore safety barriers designed to stop cars and climb over stopped trains. There are no pedestrian crossing protections at any of the five crossings near the site, nor are any new pedestrian safety protections proposed."

Exhibit H35 analyzes the issue at pages 3 -4 concluding the following:

> "Taken together, this analysis indicates that, at a very minimum, 1,000 of the concert attendees, about one-third of the total, will need to cross the tracks on foot to arrive at an event. Unpredictable train crossings that "average 10 minutes"2 will create an incentive for excited attendees to make poor choices, risking their lives, to make it to an event on time. After an event, poor visibility coupled with judgment-impaired attendees crossing train tracks is nothing more than a recipe for disaster.
> Portland Zoning Code (ZC) 33.815.215(A)(3) requires a finding that "the transportation system is capable of supporting the proposed use in addition to the existing uses in the area" including "safety," "impacts on pedestrian circulation." This provision goes on to explain that: "a finding of failure in one or more factors may be acceptable if the failure is not a result of the proposed

> development, and any additional impacts on the system from the proposed development are mitigated."
>
> Locating a major entertainment venue one block from the City's most heavily used train tracks, where lengthy freight trains barrel through in excess of 15 miles per hour, creates pedestrian safety and circulation failures. The applicant identified no mitigation for this significant injection of pedestrian traffic demanding pedestrian rail crossings far in excess of anything that exists today."

PBOT's July 19, 2024 Memo Exhibit H40 includes the following guidance regarding train crossings in the area of the site: "The subject site is does not abut the railroad Right-of-Way, therefore improvements such as an improved crossing is not required of the applicant or project." This is a legally accurate assessment of the situation.

Additionally, the Applicant addresses the opposition in Exhibits H52 and H54.

> "The standard protective devices at rail crossings in Oregon are installed and maintained by the railroad (not the Applicant) per OAR 741-110-0020 to 0090 and 741-115-0010 to 0080."
>
> "The approval standards do not require projecting and accounting for impairment of individual users of the transportation system." The Traffic Impact Study results conclude:
>
> "[T]he proposed use is not expected to result in any material change to the frequency of accidents."

The Hearings Officer finds that the rail crossings and protective devices are not the responsibility of the Applicant to improve or maintain. The Hearings Officer finds that impaired or otherwise poor judgment of individuals (whether concert attendees or not) to ignore the safety devices is not the responsibility of the Applicant. There is no guarantee that the worst case scenario predicted by the opposition won't occur (a train related death of a music event attendee). This finding merely relies on the best evidence in the record and the limited scope of what can be accomplished through a Type III land use review, that the proposal will not increase the risk of a train related death and limits the scope of review to the proposal and the applicable approval criteria. The safety criteria related to the proposal is satisfied.

Construction Disruption

In Exhibit H26 the project opponent raises the following concern: "The construction alone will be a major disruption to my business. * * * I would like to know how the city plans to address parking for the community and business owners during construction and thereafter since it's leveraging itself as building more job opportunities." There is no applicable approval criteria that concerns itself, at this stage of the approval process, with construction noise, delays, impacts. Project opponents may reach out to the City Planner to provide recommendations

about the best way to communicate these concerns as the permit process unfolds and timelines for construction materialize.

Transportation System Impacts

Title 33.815.215 requires analysis of the proposed use to ensure that transportation services are or will be sufficient to serve the use. PBOT submitted analysis into the record (Exhibit E-2) incorporated into the Staff Report finding that subsections A.1, A.2, and A.3 are satisfied. See Exhibit H5 pages 4 – 9. PBOT's analysis relied on the City's Transportation System Plan's (TSP) classification of the abutting streets, the Applicant's Transportation Impact Study (Exhibit A-10), concluding that although there were no objections, and recommended conditions. The Hearings Officer finds that the TIS is expert testimony whereas the opposition relied on anecdotal inferences that are less persuasive.

Opponents of the proposal included traffic related issues (examples in the record in Exhibits H32 and H35) some of which is included below for easy reference:

> "I used to work in the area and can confirm that there are more permits issued than there are actual parking spots to match. It's naive to expect this venue not to be impacted by that, given artists/buses/trucks arrive on site early in the morning and stay for at least a day if not more, depending on the number of shows booked. Fans also tend to arrive early out of excitement to see their favorite artist, which will certainly impact parking in the surrounding streets. Employees in the area already struggle to find parking for the businesses already established. Add on top of that the customers shopping at said businesses, I just do not see how it is even remotely possible for the applicant to believe they will not have any affect on daytime parking in the area. Your assessment that 915 parking spots will be needed for a sold out weekday/weekend show of 3500 capacity is misguided. What is that based on?" Exhibit H32

Applicant responds, arguing that "project opponents have provided no evidence (expert or otherwise) of the inadequacy of public services to support the proposed venue." The Hearings Officer finds that compliance with the applicable approval standard is demonstrated by substantial expert evidence in the record. PBOT provides a detailed written response to this criterion [Staff Report Exhibit E-2; see also, Exhibit 16, at 2]. As expressly determined by PBOT and as adopted by the Staff Report, PBOT found that the proposed conditional use project is consistent with the surrounding street designations of the Transportation Element of the Comprehensive Plan and TSP classifications" [Id.; see also, Exhibit 5, at 4].

Further, the Applicant's Traffic Impact Study ("TIS") [Staff Report Exhibit A-10], contains a detailed discussion of how the proposed use is appropriate for the site's traffic street designations identified in Table 1 of the TIS [Staff Report Exhibit A-10, at 57]. The design classifications (SE Salmon Street and SE Main Street are Local Streets, and SE Water Avenue is a Neighborhood Main Street) are also suited for the proposed land use [Id.; see also, Staff Report Exhibit A-12, at 5].

The Applicant further addresses each evaluation factor and responds to oppositional testimony raised during the course of the proceedings in Exhibit H54 that the Hearings Officer adopts and incorporates herein by reference.

The Hearings Officer finds that adjacent and nearby streets will continue to fully accommodate truck movements and all modes of transportation. In addition, the Applicant is required to improve the street frontages of the proposed venue to feature wider sidewalk corridors on SE Main Street and SE Salmon Street, consistent with their local street designations in a Pedestrian District and along SE Water Avenue, consistent with its Major City Walkway and Neighborhood Main Street designations. Such improvements will be reviewed through a Public Works Permit [Exhibit 5 at 8]. With conditions, the proposal meets the applicable approval criteria related to transportation impacts.

Truck Loading Adjustment

Applicant seeks the following adjustment, "To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c). The applicant proposes to create 2 truck loading spaces which are primarily in the public right-of-way adjacent to the site."

Zoning Code Section 33.266.310.A states the purpose of the on-site loading space requirement:

> "A minimum number of loading spaces are required to ensure adequate areas for loading for larger uses and developments. These regulations ensure that the appearance of loading areas will be consistent with that of parking areas. The regulations ensure that access to and from loading facilities will not have a negative effect on the traffic safety or other transportation functions of the abutting right-of-way."

The applicant proposes to use the SE Main Street right-of-way adjacent to the site for truck loading when needed, and this Adjustment is necessary because the Zoning Code requires loading areas that are on-site rather than in the right-of-way. However, the proposal would still accommodate two large trucks simultaneously, as required by Zoning Code Section 33.266.310.C.2.c, and the loading area would be as large as would be required by Zoning Code Section 33.266.310.D.1. The street would not have the appearance of a loading area or parking area when not in use for truck loading, and using the public street for loading rather than creating a dedicated loading area on-site reduces visual impacts by reducing the amount of pavement area required for the proposal. PBOT evaluated this proposal and found that using SE Main Street for truck loading in this case would not have a negative effect on traffic safety or other transportation functions in the right-of-way, as long as the applicant obtains and maintains continuous compliance with an Angle Loading Permit (Exhibit E-2). For these reasons, and with the condition of approval recommended by PBOT to require the Angle Loading Permit, staff finds the Adjustment request equally meets the purpose of the standard.

The appearance of the loading areas will be consistent with that of required parking areas. Here, there are no required on-site parking areas, and the proposed loading areas will be visually standard loading areas consistent with required setbacks, and indistinguishable when trucks are not present from other loading areas. Similarly, the Staff Report expressly found that the street would not have the appearance of a loading area or parking area when not in use for truck loading, and using the public street for loading rather than creating a dedicated loading area on-site reduces visual impacts by reducing the amount of pavement area required for the proposal. Exhibit 5, at 12. Thus, the purpose of ensuring that "appearance of loading areas will be consistent with that of parking areas" is equally or better met by the proposed adjustment.

The Applicant has provided a detailed analysis of loading-related truck movements and traffic control plans to ensure traffic safety and continuous transportation functionality while trucks are loading and accessing the loading area. The TIS includes a traffic control plan illustrating how vehicle, bike, and pedestrian travel will be maintained on SE Main Street during the time that trucks are loading. The final measures and improvements are subject to the public works and angle loading permitting process, but the Applicant has presented feasible plans that achieve the following traffic safety measures:

- SE Main Street remaining accessible to two-way vehicular and bicycle traffic at all times. Even with the largest trucks loading, no less than 21.6 feet of the street will remain usable for vehicles. 20 feet is the standard minimum width to accommodate two-way traffic.

- Full signage and certified flagger support for truck movements to access the loading area.

- Swinging gate that closes the sidewalk and landscape area, directing pedestrians to use the sidewalk on the other side of SE Main Street when trucks are present in the loading area.

Further, construction of the venue would result in improvements to adjacent rights-of-way resulting in substantial improvement for transportation functionality of the adjacent rights-of-way. The improvements are listed at Table 21 of the TIS and benefit all modes of transportation [Staff Report Exhibit A-10, at 55-56]. Currently, the abutting street improvements do not meet City standards and result in conflicts between modes. Exhibit 48, at pages 2 and 3, show a pick-up truck of a local services provider navigating the current illegal angle parking on SE Salmon and lack of sidewalk improvements resulting in pedestrians in the vehicular travelway.

City staff evaluated and the TIS and concurred with Applicant, finding that the loading area adjustment in this case would not have a negative effect on traffic safety or other transportation functions in the right-of-way, as long as the Applicant obtains and maintains continuous compliance with the appropriate angle loading permit determined by PBOT [Staff Report Exhibit E-2; Exhibit 16]. The Hearings Officer finds that the adjustment criteria are met.

Ecoroof Adjustments

Applicant seeks an adjustment allowing for a much smaller eco room than that required by the applicable City Code. Opposition testimony is located in Exhibits H18, H30, H39. For easy reference some of that opposition testimony is included below:

> "The proposal does meet the stormwater requirements set by the city and has integrated planters and eco 'net' using stainless cables for plants to grow up the side of the building; these are an effort to mitigate the lack of eco roof coverage. However, the proposal does not quantify the effects of these alternatives relative to the eco roof requirement. The eco roof requirement is not near to being met and it has not been proven that these mitigation efforts will make up an equal effect of the remaining 85% of the ecoroof requirement. These mitigations do not effectively meet the intention of the eco roof requirement and this proposal should be rejected." Exhibit H18
>
> "It is clear that performing arts, concert/theater style buildings and even convention centers can be and have been built with ecoroofs at no sacrifice to the interior uses. We encourage the applicant to consider ecoroofing the entire building including the 25% sloped roof." Exhibit H30.
>
> "The proposed strategies will not provide the myriad benefits provided by a large ecoroof and therefore does not qualify for an adjustment. Beyond compliance with the SWMM, proponents have failed to substantively address any of the benefits that ecoroofs provide. City Council was explicitly trying to achieve more than simply managing stormwater when it put the ecoroof mandate in place. This proposal fails to achieve those multiple benefits. Additionally, proponents seem to rely on cost and feasibility as a basis for proposing alternative strategies. In fact, as expert testimony from City of Portland ecoroof expert, Tom Liptan (retired) indicated, an ecoroof is feasible with the proposed design." Exhibit H39.

In Exhibit H32 the project proponent asks the following question: "City code requires ecoroof percentage and the fact that the applicant is already looking to decrease that amount begs the question: if we just allow an adjustment to the requirement, then what is the point of having a requirement?" The Hearings Officer appreciates this comment but City Council enacted Zoning Code Section 33.805.040.A-F explicitly allowing adjustments when deemed appropriate (when the adjustment can meet the approval criteria). Therefore, it would be an abuse of authority to disregard the approval criteria allowing for an adjustment sought by the Applicant.

The Applicant has the burden of demonstrating that the proposed adjustment equally or better meets the purposes of the ecoroof requirements. Since the hearing, presumably in response to some of the concerns raised by the opposition heard at the Hearing, the Applicant has modified the ecoroof plans in a manner that meets the crtieria. Specifically, the applicant proposes to increase the square footage of ecoroof provided, going from 2,100 to 4,670

square feet [Exhibit 36, at 39] The applicant has also provided additional analysis of the roof design and area required to meet the ecoroof requirement. The outcome of these modifications has been an ecoroof proposal that meets 43% (i.e. 4,670 sq ft of the required 10,872 sq ft) of the unadjusted ecoroof standards, where it previously met only 14% of the unadjusted ecoroof standards (i.e. 2,100 sq ft of 14,617 sq feet).

Further, without this adjustment, construction of an ecoroof would be cost-prohibitive totaling up to nearly $4.2 million to increase the foundation piles and upsize the roof trusses and structural steel elements as found to be necessary to support full ecoroof compliance by DCI Engineers [Exhibit 36] and as demonstrated in the cost analysis prepared by Colas Construction [Exhibit 38]. Therefore, the proposed adjustment meets the overall purpose of the eco-roof requirement by maximizing the amount of ecoroof that can be provided without over-engineering the building so as to be economically infeasible.

Besides the 4,670 square feet of ecoroof area, Applicant also proposes the following: (1) 1,500-square-foot stormwater planter on the south side of the building that exceeds the stormwater management requirements for ecoroof area (Exhibit 36, Floor Plan – Roof; Exhibit 36, Planting Plan); (2) Stainless steel cables would allow plants to climb toward the roof (Staff Report Exhibit C-4); and (3) Planting of new street trees adjacent to the site (Staff Report Exhibits C-1 and E-8).

With these features, the site would be much greener than it is currently and would appear greener than is typical for sites in the industrial area. While most of the new greenery does not qualify as ecoroof area under PCC 33.510.243.B.2, all the new plants and trees will reduce stormwater runoff, improve air quality, mitigate heat island impacts, and provide habitat for birds and insects. The stormwater management requirements for the site will be fully met (Staff Report Exhibit E-1), and the landscaping plan for the ecoroofs and the other planters includes several plant varieties known to attract pollinators (Staff Report Exhibit A-8, at 14-15); thus, the proposed ecoroof design equally meets these goals. See also, Exhibit 36, Roof Floor Plan; and Exhibit 36, Planting Plan. The planters would utilize a geocell grid to prevent soil erosion, and that plantings would be denser than typical. Staff Report Exhibit A-12, at 16. The Applicant also previously submitted an operations and maintenance plan that would promote the long-term success of the planters (Staff Report Exhibit A-11). Again, without these green features, the lot would continue to be a vacant, un-vegetated combination of paving and gravel [Exhibit 45, at 1; Exhibit 48]. Thus, with these measures, the proposed adjustment will exceed the purpose of the eco-roof standards.

Furthermore, the roof will consist of Thermoplastic Polyolefin (TPO) roofing material for heat island reduction. See Exhibit 36, at 2. Specifically, un-planted roof areas would be white TPO roof material. As evident by Applicant's Exhibit 36, such roofing materials have highly reflective properties that effectively reflect solar radiation to reduce heat island impacts. Id. In effect, the proposed adjustment would meet the purpose of the eco-roof standards by reducing heat islands and air temperatures. For all these reasons, the Hearings Officer finds that the proposed adjustment equally meet the purposes of the ecoroof standards.

Future Tenant Concerns

The record contains significant opposition to the future tenant Live Nation. See for example Exhibits H13, H18, H23, H25, H26, H28, H29, H31, H32, H33, and H35. Exhibit H13 includes the following opposition: "This does not go with what Portland is. Portland is a grassroots community. Allowing businesses like this to come in and syphon creativity from local artists will be another dagger to the city." Another example, Exhibit H18 states in pertinent part: "Live Nation has a track record of shady business practices and a history of squeezing out the small local promoters and venue owners in other cities. Portland has a rich music culture that is run almost entirely by local promoters and artists. Allowing Live Nation to enter our city puts this culture at risk. Live Nation should not be allowed to move forward with this project." Some arguments connect this concern with the future tenant to the following approval criteria: PCC 33.815.215 C, "Public benefits of the proposed use outweigh any impacts that cannot be mitigated." See Exhibit H-33. The Hearings Officer finds that these tenant related concerns are not connected to the approval criteria for the land use proposal and cannot be considered. For comparison, the structure's appearance or impacts on the transportation system are clearly related to the proposed use of the development. The use being proposed is Major Event Entertainment, and this does not include the operator (public, private, large, or small). PCC 33.920.230. Demonstrating the point is that the application is not dependent on the proposed venue operator being the operator and should the lease end or be terminated, the owner could contract with a new venue operator. Notably, nearly all of the opposition to the future tenant also was supportive of a new music venue in Portland. The Hearings Officer rejects any opposition to the tenant's alleged business practices as applicable to the approval criteria. The "impacts" criteria in Title 33 relate to the development of a music venue in this location, not the future tenant's business practices when utilizing the music venue.

No Public Subsidy

Project opponents assert that the proposed venue is reliant on receiving a public subsidy [Exhibits 35 and 43]. The Hearings Officer finds that this assertion is not supported by the facts in the record, therefore, this assertion is incorrect and inaccurate. Accordingly, assertions that the conditional use standards be applied differently based on the existence of public subsidy need not be addressed further.

III. CONCLUSIONS

Despite significant and substantial opposition to the proposal, adjustments, and the adequacy of the conditions (contained in both the opposition testimony at the Hearing and the written submissions marked as H-Exhibits), the Hearings Officer finds the proposal meets the approval criteria. On balance, the Hearings Officer finds that, under the facts of this case, the City's and the Applicant's positions are more persuasive than the opposition testimony. The proposal and adjustments with conditions meet the approval criteria. The Hearings Officer approves the proposal, the adjustments, and the conditions hereby adopting the Staff Report as modified in the decision above and in the conditions below. The Staff Report is adopted as the decision in this matter and is attached hereto and incorporated herein by reference. No adjustments to the approvals per the approved plans, Exhibit C-1 through C-4, are permitted

unless it is deemed necessary by the City Planner given the Applicant's post-Hearing modification to the requested adjustment regarding the expanded ecoroof.

IV. DECISION

Approval of Conditional Use Review to establish a Major Event Entertainment use on this site; and

Approval of two Adjustments:

- To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c).

- To reduce the amount of ecoroof area required from 14,617 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 4,670 square feet (Zoning Code Section 33.510.243.B.1).

The approvals are per the approved plans, Exhibit C-1 through C-4, and subject to the following conditions of approval:

A. As part of the building permit application submittal, each of the required site plans and any additional drawings must reflect the information and design approved by this land use review as indicated in Exhibits C-1 through C-4. The sheets on which this information appears must be labeled, "Proposal and design as approved in Case File # LU 23-111784 CU AD."

B. Prior to issuance of a building permit for this development, the applicant must receive 30 percent public works concept approval and make any required bond payment for required frontage improvements abutting the site.

C. Prior to issuance of a building permit for this development, the applicant must obtain approval of the appropriate permit as determined by PBOT for the proposed truck loading in SE Main Street. The applicant must adhere to all the conditions and stipulations of said permit for the life of the proposed use. If any conditions are found to be in violation, the applicant may be fined and/or any applicable permits may be revoked.

D. The applicant must continually implement the transportation demand management (TDM) measures identified in the TDM plan in Exhibit A-10 that are within their control.

E. The applicant must assess the bike parking capacity on an annual basis for the first 3 years after the concert venue begins operation and then every other year after that ending with year 11. That assessment must include bike count averages for events throughout the year. The applicant must send their assessment to PBOT Development Review and PBOT Active Transportation and Safety. If demand consistently exceeds the provided bike parking, the applicant must work with PBOT on remedies, including but not limited to adding additional bike racks or a contract for offering temporary bike racks during events.

William Guzman
William Guzman, Hearings Officer

August 14, 2024
Date

Application Determined Complete:	May 23, 2024
Report to Hearings Officer:	July 1, 2024
Decision Mailed:	August 14, 2024
Last Date to Appeal:	August 28, 2024 by 4:30 p.m.
Effective Date (if no appeal):	August 29, 2024

Conditions of Approval. This project may be subject to a number of specific conditions, listed above. Compliance with the applicable conditions of approval must be documented in all related permit applications. Plans and drawings submitted during the permitting process must illustrate how applicable conditions of approval are met. Any project elements that are specifically required by conditions of approval must be shown on the plans and labeled as such.

These conditions of approval run with the land, unless modified by future land use reviews. As used in the conditions, the term “applicant” includes the applicant for this land use review, any person undertaking development pursuant to this land use review, the proprietor of the use or development approved by this land use review, and the current owner and future owners of the property subject to this land use review.

Appeal of the decision. ANY APPEAL OF THE HEARINGS OFFICER’S DECISION MUST BE E-MAILED TO LANDUSEINTAKE@PORTLANDOREGON.GOV. The appeal application form can be accessed at : Land Use Review Appeals, Land Use Review Appeal Costs and Appeal Fee Waivers | Portland.gov. If you do not have access to e-mail, please telephone (503) 865-6744 for assistance on how to submit the appeal; please allow one business day for staff to respond. **An appeal fee will be charged.**

Who can appeal: You may appeal the decision only if you wrote a letter which is received before the close of the record on hearing or if you testified at the hearing, or if you are the property owner or applicant. If you or anyone else appeals the decision of the Hearings Officer, only evidence previously presented to the Hearings Officer will be considered by the City Council.

EXHIBITS RECEIVED IN THE HEARINGS OFFICE – *SEE NEXT PAGE*
(NOT ATTACHED UNLESS INDICATED)

The exhibits in the land use case file are all assigned a letter (example A-1). The Hearings Office accepts exhibits filed online in its case management system. These exhibits are marked in the lower right hand corner that identifies the exhibit as a "Portland Hearings Office" exhibit. All of these exhibits are designated "H Exhibits" (that is, Hearings Office Exhibits). See the BDS Staff Report for a list of exhibits prior to "H."

Portland City Auditor
Hearings Office

HearingsOfficeClerks@PortlandOregon.gov
503-823-7307

4240010 H Exhibits, Orders, and Other Attachments

Number	Title	Status
Exhibit 1	Schedule Request	Accepted
Exhibit 2	Zoom Participation Instructions	Accepted
Exhibit 3	Notice Of Hearing	Accepted
Exhibit 5	STAFF REPORT **(attached)**	Accepted
Exhibit 6	STAFF MEMO	Accepted
Exhibit 7	Nick Wood Testimony	Accepted
Exhibit 8	Patrick Fleming Testimony	Accepted
Exhibit 9	STAFF PRESENTATION	Accepted
Exhibit 10	Jeff Miller Testimony	Accepted
Exhibit 11	Portland Metro Chamber (PMC) Comments	Accepted
Exhibit 12	OMSI Support Letter	Accepted
Exhibit 13	Live Nation Land Use Comments	Accepted
Exhibit 14	PBOT MEMO	Accepted
Exhibit 15	TRANSPORTATION INFORMATION	Accepted
Exhibit 16	PBOT MEMO ADDITIONAL	Accepted
Exhibit 17	Record Closing Information	Accepted
Exhibit 18	Written Testimony - Kevin Killian	Accepted
Exhibit 19	Written Testimony - Aaron Kuehn	Accepted
Exhibit 20	Applicant Presentation	Accepted
Exhibit 21	Written Testimony - Jaime Dunphy	Accepted
Exhibit 22	LU 23-11784 CU AD 14 day Extension	Accepted
Exhibit 23	Katie Bergen Testimony	Accepted
Exhibit 24	Kate Sena Testimony	Accepted
Exhibit 25	Chad Colwell Testimony	Accepted
Exhibit 26	Debra Krueger	Accepted
Exhibit 27	Carolyne Holcomb Testimony (CEIC)	Accepted
Exhibit 28	Jon Meyer Testimony	Accepted
Exhibit 29	New Evidence - Tori Johnson	Accepted
Exhibit 30	New Evidence - Tom Liptan	Accepted
Exhibit 31	New Evidence - Ronnie Carrier	Accepted
Exhibit 32	K. Jasmine Robb Testimony	Accepted
Exhibit 33	Marshall Runkel Testimony	Accepted
Exhibit 34	Kiel Johnson Testimony (email chain)	Accepted
Exhibit 35	Carrie Richter - New Evidence	Accepted
Exhibit 36	New Evidence - Damien R. Hall	Accepted
Exhibit 37	New Evidence - Damien R. Hall (2 of 3)	Accepted

	3)	
Exhibit 38	New Evidence - Damien R. Hall (3 of 3)	Accepted
Exhibit 39	New Evidence - Bob Sallinger	Accepted
Exhibit 40	PBOT Memo	Accepted
Exhibit 41	H. Lee & Associates, PLLC	Accepted
Exhibit 42	Dunphy - Response to New Evidence 2	Accepted
Exhibit 43	Runkel Updated Testimony	Accepted
Exhibit 44	D. Hall Response to New Evidence 2 of 4 (pt.1)	Accepted
Exhibit 45	D. Hall Response to New Evidence 2 of 4 (pt.2)	Accepted
Exhibit 46	D. Hall Response to New Evidence 2 of 4 (pt.3)	Accepted
Exhibit 47	D. Hall Response to New Evidence 1 of 4	Accepted
Exhibit 48	D. Hall Response to New Evidence 3 of 4 (pt.1)	Accepted
Exhibit 49	D. Hall Response to New Evidence 3 of 4 (pt. 2)	Accepted
Exhibit 50	D. Hall Response to New Evidence 3 of 4 (pt.3)	Accepted
Exhibit 51	D. Hall Response to New Evidence 3 of 4 (pt.4)	Accepted
Exhibit 52	D. Hall Response to New Evidence 4 of 4	Accepted
Exhibit 53	Runkel Further Testimony	Accepted
Exhibit 54	Applicant Final Written Argument (D. Hall)	Accepted

Carmen Rubio, Commissioner
David Kuhnhausen, Interim Director
Phone: (503) 823-7300
TTY: 711
www.portland.gov/bds

STAFF REPORT AND RECOMMENDATION TO THE HEARINGS OFFICER

CASE FILE: LU 23-111784 CU AD
(Pre-Application Conference # 22-128857 PC)
REVIEW BY: Hearings Officer (Hearings Office Case # 4240010)
WHEN: July 10, 2024, at 1:00 PM

This land use hearing will take place online using the Zoom platform. See the instructions on how to participate remotely (online or by phone) at this link: https://www.portland.gov/bds/zoning-land-use/documents/notice-land-use-hearing-lu-23-111784-cu-ad/download or contact the Hearings Office at HearingsOfficeClerks@portlandoregon.gov or 503-823-7307. Additional Hearings Office information is available at www.portland.gov/omf/hearings/land-use.

It is important to submit all evidence to the Hearings Officer. City Council will not accept additional evidence if there is an appeal of this proposal.

BUREAU OF DEVELOPMENT SERVICES STAFF: ANDREW GULIZIA / ANDREW.GULIZIA@PORTLANDOREGON.GOV

GENERAL INFORMATION

Applicant's Representative: Suzannah Stanley
Mackenzie
1515 SE Water Ave., Ste. 100
Portland OR 97214
(971) 346-3808
sstanley@mcknze.com

Applicant: Johnathan Malsin
Beam Development
1001 SE Water Ave., Ste. 400
Portland, OR 97214

Property Owner's Agent: Paul Gagliardi
PDC dba Prosper Portland
222 NW 5th Ave.
Portland, OR 97209

Property Owner: PDC dba Prosper Portland
220 NW 2nd Ave. #200
Portland, OR 97209

Site Address: west side of SE Water Ave. between SE Salmon St. and SE Main St.

Legal Description: LOT 1 TL 3602, PARTITION PLAT 2016-7; LOT 1 TL 4305, PARTITION PLAT 2016-8; LOT 1 TL 1705, PARTITION PLAT 2016-9
Tax Account No.: R649670250, R649670290, R649670330
State ID No.: 1S1E03AD 03602, 1S1E03AD 04305, 1S1E03AD 01705

Quarter Section:	3130
Neighborhood:	Buckman, contact John Rose or Josh Baker at buckmanlandusepdx@gmail.com
Business District:	Central Eastside Industrial Council, contact ceic@ceic.cc.
District Coalition:	Southeast Uplift, contact at operations@seuplift.org
Plan District:	Central City (Central Eastside Subdistrict)
Zoning:	IG1 – General Industrial 1
Case Type:	CU AD – Conditional Use Review and Adjustment Review
Procedure:	Type III, with a public hearing before the Hearings Officer. The decision of the Hearings Officer can be appealed to City Council.

Proposal: The applicant proposes to construct a new, 62,000-square-foot building on this site to be used as a concert venue with 1,280 seats and a maximum spectator capacity of 3,500. The applicant requests Conditional Use Review approval for a new Major Event Entertainment use in the IG1 zone. Type III Conditional Use Review is required by Zoning Code Sections 33.140.100.C and 33.815.040.A.1.

The applicant also requests approval of two Adjustments to Zoning Code requirements for this project:

- To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c). The applicant proposes to create 2 truck loading spaces which are primarily in the public right-of-way adjacent to the site. However, loading areas in the public right-of-way do not count toward the Zoning Code requirement.

- To reduce the amount of ecoroof area required from 14,617 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 2,100 square feet (Zoning Code Section 33.510.243.B.1).

Note: The applicant originally requested three Adjustments, including an Adjustment request to Zoning Code Section 33.266.200.B.1 to reduce the minimum number of on-site, short-term bike parking spaces from 32 to zero. The applicant had proposed to construct bike parking in the public right-of-way adjacent to the site as justification for this Adjustment. After discussion with the Portland Bureau of Transportation (PBOT), the applicant decided to withdraw this Adjustment request (Exhibit G-3). If this land use review is approved, the applicant will pay into PBOT's bike parking fund when the building permit is issued, as required by Zoning Code Section 33.266.210.E.1.b when there is insufficient space on-site to provide the required short-term bike parking. PBOT would then construct and maintain bike parking in the public right-of-way.

Relevant Approval Criteria: To be approved, this proposal must comply with the approval criteria of Title 33, the Portland Zoning Code. The applicable approval criteria are:

- Zoning Code Section 33.815.215.A-D (Conditional Use Review); and
- Zoning Code Section 33.805.040.A-F (Adjustment Review).

The Portland Zoning Code is available online at https://www.portland.gov/code/33.

ANALYSIS

Site and Vicinity: The subject site consists of three undeveloped lots owned by Prosper Portland in the Central Eastside industrial area. The middle lot, which abuts SE Salmon Street to the north, SE Water Avenue to the east, and SE Main Street to the south, is the subject of this development proposal. No new development is proposed for the other two Prosper Portland lots to the north and south, and these lots would continue to be used as parking. The site is at the

western edge of the industrial area, and properties to the north, east, and south of the Prosper Portland property are developed with commercial and industrial buildings. To the west of the subject site is the I-5 freeway right-of-way, and beyond that is the Eastbank Esplanade and the Willamette River. The on-ramp to the Hawthorne Bridge is just south of the site.

Zoning: The IG1 (General Industrial 1) zone is one of the three zones that implement the Industrial Sanctuary map designation of the Comprehensive Plan. The zone provides areas where most industrial uses may locate, while other uses are restricted to prevent potential conflicts and to preserve land for industry. IG1 areas generally have smaller lots and a grid block pattern.

The Central City plan district implements the Central City Plan and other plans applicable to the Central City area. The district implements portions of these plans by adding code provisions which address special circumstances existing in the Central City area.

Land Use Review History: Below are prior land use review decisions that include the subject site. None of these land use review decisions have conditions of approval that affect the current proposal.

- LU 14-235124 LC. 2015 approval of a lot consolidation.
- LU 11-171075 AD. 2011 approval of Adjustments to landscaping and exterior activity requirements for a temporary (3-year) asphalt and concrete processing use. The approval has since expired.
- LU 00-00704 GW AD. 2001 approval of a Greenway Review and Adjustments to landscaping and nonconforming upgrades requirements for a parking lot.
- LU 00-00134 GW. 2000 approval of a Greenway Review for new fencing.
- CU 063-86. 1986 Conditional Use Review approval for fill associated with a Willamette River greenway trail.

Agency Review: A "Request for Response" was sent to City agencies May 29, 2024 (Exhibit D-1). The following City reviewers responded:

- The Bureau of Environmental Services (BES) evaluated the approval criterion related to sanitary sewer service and stormwater disposal. The response is referenced in the findings for Zoning Code Section 33.815.215.A.4, below. (Exhibit E-1)
- PBOT evaluated the approval criteria related to the transportation system. The response is referenced in the findings for Zoning Code Section 33.815.215.A.1-3, below. (Exhibit E-2)
- The Water Bureau responded with no concerns. (Exhibit E-3)
- The Fire Bureau responded with information on building permit requirements and no objections to approval. (Exhibit E-4)
- The Police Bureau responded that police can adequately serve the proposed development. (Exhibit E-5)
- The Site Development Review Section of the Bureau of Development Services (BDS) responded with information on building permit requirements and no objections to approval. (Exhibit E-6)

- The Life Safety Review Section of BDS responded with information on building permit requirements and no objections to approval. (Exhibit E-7)

- The Urban Forestry Division of the Parks Bureau responded with information on street tree requirements and no objections to the land use review proposal. (Exhibit E-8)

Neighborhood Review: Signs notifying neighbors of the public hearing were posted on June 6, 2024 (Exhibit D-3) and a "Notice of Public Hearing" was mailed to neighbors on June 20, 2024 (Exhibits D-4 and D-5). At the time this report was prepared, no public comments had been submitted into the record.

ZONING CODE APPROVAL CRITERIA

Conditional Use Review

33.815.215 Major Event Entertainment
These approval criteria ensure that the potentially large size and impacts of these uses are not harmful to surrounding areas and that transportation services are or will be sufficient to serve the use. The approval criteria are:

A. Public services.

1. The proposed use is in conformance with the street designations shown in the Transportation Element of the Comprehensive Plan;

Findings: PBOT reviewed the proposal and submitted the following response to criterion A.1 (Exhibit E-2):

At this location, the City's Transportation System Plan (TSP) classifies the following abutting streets as follows:

Street Name	*Traffic*	*Transit*	*Bicycle*	*Pedestrian*	*Freight*	*Emergency Response*	*Street Design*
SE Salmon St	*Local Service*	*Local Service*	*Major City Bikeway*	*Local Service in a Ped. Dist.*	*Freight District*	*Minor Response*	*Local Street*
SE Water Ave	*Traffic Access St*	*Local Service*	*Major City Bikeway*	*Major City Walkway in a Ped. Dist.*	*Priority Truck Street*	*Major Response*	*Neighbor-hood Main Street*
SE Main St	*Local Service*	*Local Service*	*City Bikeway*	*Local Service in a Ped. Dist.*	*Freight District*	*Minor Response*	*Local Street*

The proposed Conditional Use project is supportive of the surrounding street designations of the Transportation Element of the Comprehensive Plan and TSP classifications. This criterion is met.

Based on this finding from PBOT, staff finds criterion A.1 is met.

2. If the proposed use will be located in an industrial zone, it will not have a significant adverse effect on truck and freight movement;

Findings: PBOT reviewed the proposal and submitted the following response to criterion A.2 (Exhibit E-2):

> *The proposed use is located within the Central Eastside Industrial Sanctuary. The applicant's TIS* [Exhibit A-10] *provided an analysis of existing, projected no-build, and post-development multi-modal transportation patterns. Conclusions indicate that since all of the development is located west of SE Water Ave, with the abutting east-west streets of SE Salmon and SE Main terminate into the Eastbank Esplanade, the proposed development will not conflict with existing truck and freight movement throughout the district. This criterion is met.*

Based on this finding from PBOT, staff finds criterion A.2 is met.

3. Transportation system:

   a. The transportation system is capable of supporting the proposed use in addition to the existing uses in the area. Evaluation factors include safety, street capacity, level of service, connectivity, transit availability, availability of pedestrian and bicycle networks, access restrictions, neighborhood impacts, impacts on pedestrian, bicycle, and transit circulation. Evaluation factors may be balanced; a finding of failure in one or more factors may be acceptable if the failure is not a result of the proposed development, and any additional impacts on the system from the proposed development are mitigated;

   b. Measures proportional to the impacts of the proposed use are proposed to mitigate on- and off-site transportation impacts. Measures may include transportation improvements to on-site circulation, public street dedication and improvement, private street improvements, intersection improvements, signal or other traffic management improvements, additional transportation and parking demand management actions, street crossing improvements, improvements to the local pedestrian and bicycle networks, and transit improvements.

   c. Transportation improvements adjacent to the development and in the vicinity needed to support the development are available or will be made available when the development is complete or, if the development is phased, will be available as each phase of the development is completed.

Findings: PBOT reviewed the proposal and submitted the following response to criterion A.3 (Exhibit E-2):

> *33.815.215.A.3.a: The applicant's traffic engineer has evaluated each of the evaluation factors to determine that that transportation system is capable of supporting the proposed use in addition to the existing uses in the area. PBOT Traffic Engineers have reviewed the applicant's TIS and approved the methodologies, analyses, assumptions, findings, and conclusions with regard to intersection capacity, Level of Service (LOS), trip generation, multi-modal safety, etc. to confirm that the transportation-related approval criteria have been addressed. This criterion is met.*
>
> *The following is a summary of the applicant's TIS findings:*
>
> - *Safety: For vehicle safety, the applicant's traffic engineer utilized Oregon Department of Transportation's (ODOT) Crash Data System over a five-year period from January 2016 to December 2020. There were 66 crashes recorded at the study intersections over the five-year period (see Table 4), with the most crashes occurring at the SE*

Stark St/SE Grand Ave and SE Stark St/SE MLK Jr Blvd intersections. Seven involved people walking or biking, including one at the SE Water Ave/SE Salmon St intersection. The most common collision types at the study intersections were angle, turning and rear-end crashes, many of which show "no yield" or "disregarded traffic signal" as the cited cause. In addition, the Union Pacific study rail crossings along the segment between SE Stark Street and SE Clay Street also had three reported incidents in the past five years, two in 2020 and one in 2022, two at the SE Salmon Street and one at the SE Clay Street crossings (see Table 5). Each of these incidents included a train striking a pedestrian, with two resulting in a fatality and one resulting in an injury.

When an intersection's crash rate (crashes per million entering vehicles) is greater than the critical crash rate (an intersection's crash history compared to similar intersections, adjusting for volume), it's an indication that a design deficiency may exist and further study is warranted. As shown in Table 6, one of the identified intersections is located at the intersection of SE Water Ave/SE Salmon St – where the proposed use is located. This is a 4-leg intersection with stop control of the side street approaches. Most of the collisions were angle/rear end type (4 of the 6 total collisions). Three of the collisions were caused by drivers failing to yield or passing the stop sign, two were caused by drivers running into a stopped or parked vehicle, and one was caused by a bike passing the stop sign.

PBOT standards are designed to provide safe conditions for all modes, especially pedestrians and cyclists. The applicant will be required to dedicate property along all three frontages and reconstruct the abutting pedestrian corridor to City standards, including safety improvements such as striped crosswalk, additional lighting, and curb extensions, mitigating potential conflicts in the future. PBOT will submit additional comments related to safety into the record prior to the public hearing.

- *Street Capacity/Level of Service (LOS): To determine the pre-build and post-build intersection capacity and LOS, turning movement data was obtained for the study intersections during the weekday and weekend pre-event period (6 p.m. to 8 p.m.) and post-event period (10:00 p.m. to 12:00 a.m.). Daily motor vehicle count data was also collected adjacent to the proposed venue along SE Water Avenue, south of SE Salmon Street and north of SE Main Street. The count data indicates that approximately 4,900 vehicles pass the proposed venue along SE Water Avenue during an average weekday. Of these vehicles, 1,300 travel northbound and 3,600 travel southbound. The highest number of trips along SE Water Avenue occurs from 5:00 – 6:00 p.m., with 488 vehicles passing the proposed venue (157 northbound and 331 southbound). During the pre-event and post-event peak hours, 165 and 35 vehicles pass the proposed venue along SE Water Avenue, respectively. For City study intersections along SE Water Avenue not designated on the Metro Regional Transportation Plan Arterial and Throughway Network, the City of Portland standards require a LOS "D" or better to be maintained for signalized intersections and a LOS "E" or better for intersections with stop control. As shown in Table 7, all study intersections meet the current mobility targets during the weekday and weekend pre-event and post event peak hours. All intersections along SE Water Avenue operate with a LOS B or better, while the signalized intersections at SE Stark Street/SE Grand Avenue and SE Stark Street/SE Martin Luther King Jr Boulevard operate with a LOS C or better, well below the current mobility targets.*

  For Post-build expectations, Table 17 shows the future 2025 intersection operations at study intersections, with the proposed venue. As shown, all study intersections are expected to continue to meet mobility targets despite the added traffic growth from the proposed venue through 2025, despite an expected increase up to 14

percent during the pre-event peak hour and up to 41 percent during the post-event peak hour. All intersections along SE Water Avenue are expected operate with a LOS C or better, while the signalized intersections at SE Stark Street/SE Grand Avenue and SE Stark Street/SE Martin Luther King Jr Boulevard also operate with a LOS C or better. Therefore, the system evaluation found no street capacity or level of service impacts with the proposed venue, as shown in Table 17, 18 and 19.

- *Pedestrian, Cycling, and Transit Availability: The proposed venue is very accessible to pedestrians and bicyclists and is well-served by a network of continuous sidewalks and bike facilities on the surrounding streets between nearby existing private vehicle parking, bike parking, ride hailing or transit stops. The proposed venue is also adjacent to existing bikeways along the Eastbank Esplanade, SE Water Avenue and SE Salmon Street. Current transit service near the proposed venue is primarily accessed via stops located on SE Grand Avenue and SE Martin Luther King Jr Boulevard between SE Salmon Street and SE Taylor Street, on the SE Madison Street and SE Hawthorne Boulevard viaducts (accessed via stairs from SE Water Avenue), on the SE Morrison Street and SE Belmont Street viaducts (accessed via stairs from SE Water Avenue), along SW 1st Avenue in downtown Portland across the Morrison Bridge, and near SE Tilikum Way. Event attendees and employees who utilize transit for travel to and from the venue would primarily utilize SE Water Avenue, SE Salmon Street and the Eastbank Esplanade to access transit services before and after events. Current schedules indicate that the TriMet Routes 6, 14 and 15 and MAX light-rail service near the proposed venue extends beyond the conclusion of a typical event (i.e., expected to be 11:00 p.m. or later for most events).*

- *Connectivity: The subject site located at the intersection of three ROWs meeting the City's Street spacing standards noted in 17.88.040. Therefore, additional connections are not required.*

- *Access Restrictions: Of the three frontages, SE Main Street is the lowest classified street, therefore the appropriate frontage to which provide vehicular access. As discussed further below, the applicant proposes to provide loading from SE Main Street, reviewed through a PBOT Angle Loading Permit.*

- *On-Street Parking Impacts: Parking surveys were conducted between 6:00 p.m. and 11:00 p.m. on a weekday (Thursday, July 27, 2023) and a weekend (Saturday, August 5, 2023) within a 0.25 mile or about a 10-minute walk of the proposed venue, which is generally considered a comfortable walking distance. This roughly includes the blocks bounded by the Willamette River to the west, SE Morrison Street to the north, SE Grand Avenue to the east and SE Clay Street to the south. On-street parking in the surveyed area is either permit parking (i.e., Zone G or Zone N permit) or available via a 2-hour time limit for non-permit holders and enforced on weekdays only from 7 a.m. to 6 p.m. in non-metered spots and 8 a.m. to 6 p.m. in metered spots. As shown in Table 14, about 1,318 parking spots were identified within the surveyed area, including 1,084 on-street parking stalls and 234 parking spots in public off-street lots (see Figure 16 and Figure 17). A maximum estimated parking occupancy for the entire surveyed area of 32 percent was observed during the weekday and 17 percent was observed during the weekend, both occurring in the 5:00 p.m. and 7:00 p.m. survey period.*

  Table 15 shows that a sold-out concert is estimated to generate demand for 915 parking spaces during both a weekday and weekend event, with attendee and employee arrivals occurring between 6:00 p.m. and 9:00 p.m. and most assumed to use parking locations within 0.25 miles of the proposed venue (i.e., 763 of the 915

parking spaces). The total occupied parking spaces with the proposed venue is estimated to be highest between 8:00 p.m. and 9:00 p.m. during both a weekday and weekend event when the attendee and employee parking demand is at its highest (i.e., demand for 763 spaces within 0.25 miles of the proposed venue). The parking occupancy rate during this period is estimated to reach 82 percent during a weekday event (i.e., 1,074 parking spaces) and 71 percent during a weekend event (i.e., 930 parking spaces) for the 1,318 parking spaces within 0.25 miles of the proposed venue. The estimated parking occupancy rates between 6:00 and 8:00 p.m. are under 80 percent for a weekday event and under 70 percent for a weekend event.

Table 16 shows that a weekday special event is estimated to generate demand for 131 parking spaces, with attendee and employee arrivals occurring between 12:00 p.m. and 3:00 p.m. and all are assumed to use parking locations within 0.25 miles of the proposed venue. The total occupied parking spaces with the proposed venue is estimated to be highest between 1:00 p.m. and 2:00 p.m., when 1,135 parking spaces are utilized. This represents an 86 percent occupancy rate for the 1,318 parking spaces within 0.25 miles of the proposed venue. The estimated parking occupancy rates between 12:00 and 1:00 p.m. and are 2:00 and 3:00 p.m. are at or below 84 percent. PBOT regularly evaluates the on-street parking demand and has the ability to adjust controlling factors in accordance with existing practices and policies.

- *Neighborhood Impacts: The applicant's TIS did not overtly address the potential of neighborhood impacts to the immediate vicinity or district as a whole. The purpose of the IG zone is to protect the Industrial Sanctuary area designated by the Comprehensive Plan. The Industrial Sanctuary zones identify areas where industrial uses may locate, while other uses - such as the current proposal - are restricted to prevent potential conflicts and to preserve land for industry. In this instance, the proposed venue is located in the outer portion of Central Eastside subdistrict, and the majority of proposed operations would occur when many industrial and allowed uses are closed, offsetting the impact to the district. PBOT shared concerns with the applicant that due to the proposed loading in SE Main St, the property directly to the south will be directly affected, which could impact the nature of future development of the neighboring property. PBOT recommends that a letter from the property owner (Prosper Portland) be provided acknowledging the proposed development.*

33.815.215.A.3.b: In accordance with 17.88.020, the proposed project will be required to dedicate and reconstruct the abutting frontages to City standards by providing a 12-ft wide pedestrian corridor along SE Salmon and SE Main streets, and a 15-ft wide corridor along SE Water Street. These improvements will be reviewed through a Public Works permit, which is to receive 30 percent concept approval and bond payment prior to issuance of the building permit. Additional frontage improvements such as street lighting, striped pedestrian crossings, curb extensions, signage, and preparation of ROW bike parking will also be evaluated at time of Public Works permit review.

The applicant also prepared a Transportation Demand Management (TDM) plan to reduce the impact of events on the transportation system and provide employees and attendees with information and incentives to use transportation methods other than single occupancy vehicles. The plan provides strategies to increase the walking, biking, transit, and ride hailing services to ensure that people who travel via motor vehicle effectively navigate to their parking, drop-off, or pick-up location with fewer delays than what would occur under an unmanaged setting. PBOT Parking Control and Traffic Engineering will evaluate ride hailing locations as deemed appropriate to serve the use and reserve the right to modify and relocate such service locations as the project comes online.

The applicant also identified several Capital Improvement Projects (CIP) in and around the area that will also help mitigate anticipated impacts and strengthen the City's mode-split goals.

Therefore, PBOT finds that with these measures, the transportation impact of the project will be able to sufficiently mitigate transportation-related impacts immediately surrounding the site and within the district. This criterion is met.

33.815.215.A.3.c: As noted above, all required frontage improvements, payment into the bike fund, and implementation of TDM strategies will be in place by the time the development is complete. This criterion is met.

In conclusion, based on the evidence included in the record, PBOT finds the applicant has demonstrated with required frontage improvements, implementation of proposed TDM measures, and adhering to strict conditions set forth in the required Angle Loading Permit, the proposed project will support access, safety, and function for users of all modes; and that the transportation system will be capable of supporting the proposed venue, in addition to accommodating the existing uses in the area.

PBOT has no objections to the proposed Major Event Entertainment Conditional Use, subject to the following conditions:

1. *The applicant must receive 30 precent Public Works concept approval and bond payment prior to issuance of building permit for required frontage improvements abutting the site.*

2. *The applicant must apply for and obtain an annual Angle Loading Permit for the proposed loading in SE Main Street. The applicant must adhere to all the conditions and stipulations of said permit for the life of the proposed use. If any conditions are found to be in violation, applicant may be fined and/or revocation of said Angle Loading Permit.*

3. *The applicant must implement the TDM measures identified the TDM plan within their control.*

4. *Applicant must assess their bike parking capacity on an annual basis for first 5 years and then every other year after that. That assessment shall include bike counts averages for events throughout the year. Applicant must send their assessment to PBOT Development Review and PBOT Active Transportation and Safety. If demand consistently exceeds provided bike parking, the applicant must work with PBOT on remedies, including but not limited to adding additional bike racks or a contract for offering temporary bike racks during events.*

5. *The applicant shall provide a letter for the record that the property to the south (R673495) acknowledges and accepts the limitations placed upon the site with the proposed loading occurring in SE Main St by the subject property.*

Based on these findings from PBOT, and with the conditions of approval recommended by PBOT, staff finds criterion A.2 is met.

4. Public services for water supply, police and fire protection are capable of serving the proposed use, and proposed sanitary waste disposal and stormwater disposal systems are acceptable to the Bureau of Environmental Services.

Findings: The Water Bureau and the Fire Bureau reviewed the proposal and responded with no objections (Exhibits E-3 and E-4, respectively), indicating that adequate water supply and fire protection would be available. The Police Bureau reviewed the proposal and responded that police would be able to adequately serve the proposed use (Exhibit E-5). The Bureau of Environmental Services reviewed the application and found the proposed sanitary sewer connection and stormwater management plan are acceptable (Exhibit E-1). For these reasons, staff finds criterion A.4 is met.

B. Appearance. The appearance of the facility is consistent with the intent of the zone in which it is to be located and with the character of the surrounding uses and development;

Findings: Zoning Code Section 33.140.030.C states the intent of the General Industrial zones, including the IG1 zone that applies to the subject site:

The General Industrial zones are two of the three zones that implement the Industrial Sanctuary map designation of the Comprehensive Plan. The zones provide areas where most industrial uses may locate, while other uses are restricted to prevent potential conflicts and to preserve land for industry. The development standards for each zone are intended to allow new development which is similar in character to existing development. The intent is to promote viable and attractive industrial areas.

1. *General Industrial 1. IG1 areas generally have smaller lots and a grid block pattern. The area is mostly developed, with sites having high building coverages and buildings which are usually close to the street. IG1 areas tend to be the City's older industrial areas.*

2. *General Industrial 2. IG2 areas generally have larger lots and an irregular or large block pattern. The area is less developed, with sites having medium and low building coverages and buildings which are usually set back from the street.*

The site is at the western edge of an older industrial area, and the I-5 freeway and the Willamette River are just west of the site. The lots to the north and south of the proposed building are undeveloped, and no development is currently proposed for these lots. Properties east of the site, on the opposite side of SE Water Street, are developed with one- and two-story industrial and commercial buildings. A larger, four-story building (the Eastbank Commerce Center) is one block north of the proposed concert venue.

As intended for the IG1 zone, this area has a grid block pattern and relatively small lots for an industrial area. (The concert venue lot would be about 32,000 square feet after required street dedications.) Since this proposal is to construct a new building on a currently vacant lot, and since that building would be close to all three abutting streets, covering most of the lot area, staff finds the proposal is consistent with the intent of the IG1 zone to have "high building coverages and buildings which are usually close to the street."

The new building would have a four-story scale and a modern design with angled roof lines and minimal ornamentation other than rooftop plantings (Exhibit C-4). The applicant describes the design as like an "upscale warehouse" (Exhibit A-12, page 9), and Exhibit A-3 shows how the exterior design, though modern, reflects existing buildings in the area.

Staff finds the appearance of the proposed building would be both attractive and compatible with the industrial character of the area, consistent with the intent of the General Industrial

zones to "promote viable and attractive industrial areas." Since staff finds the appearance of the facility would be consistent with the intent of the IG1 zone and with the character of surrounding uses and development, staff finds criterion B is met.

C. Benefit. Public benefits of the proposed use outweigh any impacts that cannot be mitigated;

Findings: The applicant has identified several public benefits from the proposal (Exhibit A-12, page 9). The proposal would develop a currently vacant lot, and the concert venue would create a higher level of activity in the evenings to deter crime and support nearby bars and restaurants without interfering with industrial businesses that operate primarily in the daytime. In addition, the applicant would be required to install public improvements such as wider sidewalks and street trees around the development site.

However, neither the applicant nor staff has identified any negative impacts from the proposed Major Event Entertainment use that cannot be mitigated. The venue would largely operate outside the hours of operation of most businesses in the industrial area, and as stated in the findings for criterion A, public services, including the transportation system, are adequate to accommodate the proposed use.

Since there are no negative impacts identified that cannot be mitigated and which public benefits must outweigh, staff finds criterion C is not applicable.

D. In the campus institutional zones. These approval criteria allow Major Event Entertainment facilities to be part of an institutional campus. They also ensure that the impacts of the facility on nearby areas are mitigated and that affected neighbors have an opportunity to comment on the proposals for mitigation. The approval criteria are:

1. The facility is to be established as part of a school or college. Such facilities are prohibited as part of a medical center campus;

2. The facility is limited to events that feature the athletic or performance skills of students, faculty or staff or which supplement the institution's programs;

3. In the IR zone the facility is listed in the mission statement as part of the institution's impact mitigation plan;

4. In the IR zone the mitigation activities completed to implement the impact mitigation plan are adequate to mitigate for the expected impact of the facility. The location chosen and mitigation measures used are consistent with the institution's approved impact mitigation plan; and

5. All approved limited uses and major event entertainment uses in aggregate occupy 30 percent or less of all campus net building area including portions of parking structures associated with these uses. If the institutional campus includes structured parking, 250 square feet of the structured parking will be associated with the major event entertainment facility for each parking space associated with the facility. Size exceptions are prohibited.

Findings: The campus institutional zones are listed in Zoning Code Section 33.150.020. Since this site is not in a campus institutional zone, criterion D does not apply.

Adjustment Review

33.805.040 Approval Criteria
Adjustment requests will be approved if the applicant has demonstrated that approval criteria A through F, below, have been met.

A. Granting the Adjustment will equally or better meet the purpose of the regulation to be modified; and

Findings: The applicant is requesting two Adjustments:

- To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c).

- To reduce the amount of ecoroof area required from 14,617 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 2,100 square feet (Zoning Code Section 33.510.243.B.1).

Consistency with the purpose of each requirement to be modified is discussed below.

Loading
Zoning Code Section 33.266.310.A states the purpose of the on-site loading space requirement:

A minimum number of loading spaces are required to ensure adequate areas for loading for larger uses and developments. These regulations ensure that the appearance of loading areas will be consistent with that of parking areas. The regulations ensure that access to and from loading facilities will not have a negative effect on the traffic safety or other transportation functions of the abutting right-of-way.

The applicant proposes to use the SE Main Street right-of-way adjacent to the site for truck loading when needed, and this Adjustment is necessary because the Zoning Code requires loading areas that are on-site rather than in the right-of-way. However, the proposal would still accommodate two large trucks simultaneously, as required by Zoning Code Section 33.266.310.C.2.c, and the loading area would be as large as would be required by Zoning Code Section 33.266.310.D.1. The street would not have the appearance of a loading area or parking area when not in use for truck loading, and using the public street for loading rather than creating a dedicated loading area on-site reduces visual impacts by reducing the amount of pavement area required for the proposal. PBOT evaluated this proposal and found that using SE Main Street for truck loading in this case would not have a negative effect on traffic safety or other transportation functions in the right-of-way, as long as the applicant obtains and maintains continuous compliance with an Angle Loading Permit (Exhibit E-2). For these reasons, and with the condition of approval recommended by PBOT to require the Angle Loading Permit, staff finds the Adjustment request equally meets the purpose of the standard.

Ecoroof
Zoning Code Section 33.510.243.A states the purpose of the ecoroof requirement:

Ecoroofs provide multiple complementary benefits in urban areas, including stormwater management, reduction of air temperatures, mitigation of urban heat island impacts, air quality improvement, urban green spaces, and habitat for birds, plants and pollinators. The standards are intended to:
- *Maximize the coverage of ecoroofs;*

- *Allow for the placement of structures and other items that need to be located on roofs; and*
- *Support the architectural variability of rooftops in the Central City.*

Without this Adjustment, ecoroofs would be required over all the roof area with slopes not steeper than 25% and not covered by mechanical equipment and elevator and stairwell overruns (Zoning Code Section 33.510.243.B.1). The proposed building design incorporates large, sloping roof forms that are not steep enough to be exempt from this requirement (Exhibit A-8, page 7). While 2,100 square feet of ecoroof is proposed over parts of the roof, the applicant states the long spans of the sloped roof areas are not capable of supporting the weight of additional ecoroof area (Exhibit A-6, page 3).

Although a revised roof design could likely accommodate greater ecoroof coverage than proposed, staff finds the proposed building design illustrated in Exhibit C-4 would be unique in the area, supporting architectural variability as noted in the purpose statement above.

Staff also finds the proposal creates meaningful, complementary benefits that are intended to be provided by ecoroofs in the purpose statement above. Besides the 2,100 square feet of ecoroof area, the applicant proposes an additional 2,150 square feet of planted area on top of roof canopies, including a 1,500-square-foot stormwater planter on the south side of the building (Exhibit A-8, page 7). Stainless steel cables would allow plants to climb toward the roof (Exhibit C-4), and the applicant would also be required to plant new street trees adjacent to the site (Exhibits C-1 and E-8). With these features, the site would be much greener than it is currently and would appear greener than typical for sites in the industrial area. While most of the new greenery would not qualify as ecoroof area under Zoning Code Section 33.510.243.B.2, all the new plants and trees would reduce stormwater runoff, improve air quality, mitigate heat island impacts, and provide habitat for birds and insects. The stormwater management requirements for the site would be fully met (Exhibit E-1), and the landscaping plan for the ecoroofs and the other planters includes several plant varieties known to attract pollinators (Exhibit A-8, pages 14-15). The applicant states the planters would utilize a geocell grid to prevent soil erosion, and that plantings would be denser than typical (Exhibit A-12, page 16). The applicant also submitted an operations and maintenance plan that would promote the long-term success of the planters (Exhibit A-11). Finally, staff notes the un-planted roof areas would be painted white (Exhibit A-12, page 15), which would reflect solar radiation to reduce heat island impacts.

For all these reasons, staff finds the Adjustment request equally meets the purpose of the standard.

Summary
With the condition of approval recommended by PBOT for the Angle Loading Permit, staff finds each Adjustment request equally meets the purpose of the requirement to be modified. With the condition of approval, staff finds criterion A is met.

B. If in a residential, CI1, or IR zone, the proposal will not significantly detract from the livability or appearance of the residential area, or if in an OS, C, E, I, or CI2 zone, the proposal will be consistent with the classifications of the adjacent streets and the desired character of the area; and

Findings: Since the site is in an industrial (I) zone, the Adjustments must be consistent with the classifications of adjacent streets and the desired character of the area.

Street classifications
The Adjustment to the loading requirement would allow SE Main Street, which is classified as a Freight District Street, to be used for truck loading for this development. PBOT is supportive of this request. PBOT noted that truck loading has been traditionally accommodated in the right-of-way in this area, and that with continuous compliance with a PBOT-approved Angle Loading Permit, negative impacts on streets adjacent to the site are not expected (Exhibit E-2).

The Adjustment to the ecoroof requirement affects only the interior of the site and would have no impact on travel demand or the function of adjacent streets.

With the condition of approval recommended by PBOT for the Angle Loading Permit, staff finds the proposal is consistent with the adjacent street classifications.

Desired character of area
"Desired character" is defined in Zoning Code Chapter 33.910. Pursuant to this definition, the desired character for this site is determined by:

- the character statement for the IG1 zone
- the purpose statement for the Central City Plan District
- the Buckman Neighborhood Plan
- the Central City 2035 Plan

IG1 zone
The character statement for the IG1 zone is in Zoning Code Section 33.140.030.C:

> *The General Industrial zones are two of the three zones that implement the Industrial Sanctuary map designation of the Comprehensive Plan. The zones provide areas where most industrial uses may locate, while other uses are restricted to prevent potential conflicts and to preserve land for industry. The development standards for each zone are intended to allow new development which is similar in character to existing development. The intent is to promote viable and attractive industrial areas.*
>
> 1. *General Industrial 1. IG1 areas generally have smaller lots and a grid block pattern. The area is mostly developed, with sites having high building coverages and buildings which are usually close to the street. IG1 areas tend to be the City's older industrial areas.*
>
> 2. *General Industrial 2. IG2 areas generally have larger lots and an irregular or large block pattern. The area is less developed, with sites having medium and low building coverages and buildings which are usually set back from the street.*

The new building would cover most of the lot and would be close to each of the abutting streets, and as discussed in the Conditional Use Review findings, the quality building design would be compatible with nearby development and contribute to a more attractive industrial area. Staff finds the proposal is therefore consistent with the character intended for the IG1 zone, and that neither of the Adjustment requests would detract from this character.

Central City Plan District
The purpose statement for the Central City Plan District is in Zoning Code Section 33.510.010:

> *The Central City plan district implements the Central City 2035 Plan. The regulations address the unique role the Central City plays as the region's premier center for jobs,*

health and human services, tourism, entertainment and urban living. The regulations encourage a high-density urban area with a broad mix of commercial, residential, industrial and institutional uses, and foster transit-supportive development, pedestrian and bicycle-friendly streets, a vibrant public realm and a healthy urban river.

A new concert venue for 3,500 spectators at this location would broaden the use mix in the Central Eastside and reinforce the Central City's role as the premiere location in the region for entertainment and tourism. The location is easily accessible by multiple transit lines, and pedestrians and cyclists can easily access the site from the nearby Eastside Esplanade as well as from the neighborhood street grid. Neither of the Adjustment request would detract from the purpose of the Central City Plan District.

Buckman Neighborhood Plan
Staff finds the following objectives from the Buckman Neighborhood Plan to be relevant:

Objective 1.6. Support planning and design of new developments that enhance neighborhood livability.

Objective 1.7. Promote the development of a clear identity for commercial nodes on Burnside, Belmont/Morrison, Hawthorne and the Central Eastside.

Objective 5.1. Control neighborhood traffic and parking to ensure safety and livability for neighborhood residents.

Objective 5.2. Encourage alternatives to automobile use.

Objective 5.10. Discourage trucks from blocking the streets when loading and unloading, except in the designated truck zone.

Objective 6.16. Encourage visual, literary, and performing arts to thrive in Buckman.

Objective 7.2. Encourage pedestrian-oriented commercial development.

The proposal would create a new destination and amenity in the Buckman Neighborhood, support the performing arts, and contribute to a higher profile for the Central Eastside. Since the concert venue would be several blocks from residential areas, impacts on neighborhood livability would be minimal.

The development would have a pedestrian-oriented design with the building facades close to the street lot lines, improved public sidewalks, and no on-site motor vehicle parking. PBOT found that street parking in the vicinity would be adequate to support the development, and PBOT also recommended a condition of approval to require compliance with a transportation demand management (TDM) plan to limit single-occupancy vehicle trips associated with the proposed use.

The Adjustment to the loading requirement would allow trucks to partially, but not fully, block SE Main Street when loading or unloading, but only within a designated, PBOT-approved truck loading area. PBOT recommended a condition of approval requiring continuous compliance with an Angle Loading Permit to prevent truck loading from significantly impacting the functions of the public right-of-way (Exhibit E-2).

For these reasons, and with the conditions of approval recommended by PBOT, staff finds the proposal is consistent with the Buckman Neighborhood Plan.

Central City 2035 Plan
Staff finds the following statements from the Central City 2035 Plan to be relevant:

Goal 1.A. Portland's Central City is the preeminent regional center for commerce and employment, arts and culture, entertainment, tourism, education and government.

Policy 1.1. Regional image. Strengthen the roles of the Central City and Willamette River in enhancing a positive image for the city, region and state.

Policy 1.4. Tourism, retail and entertainment. Expand upon activities in the Central City that support tourism and complement economic success, vibrancy, and livability, with a special focus on retail, cultural events and institutions, public spaces, arts and entertainment, urban design, and transportation.

Policy 1.CE-1.a. Industrial center. Protect the Central Eastside as a centralized hub of industrial businesses and services that support the regional economy by serving other industrial districts and businesses located throughout the Portland metropolitan area.

Policy 3.16. Loading. Support the delivery of goods in the Central City. Pursue strategies that bring new ways of delivering goods to the Central City in a way that optimizes loading and freight access and makes efficient use of limited urban space.

Policy 5.6. Distinct and vibrant districts. Enhance the existing character and diversity of the Central City and its districts, strengthening existing places and fostering the creation of new urban places and experiences.

Central Eastside 2035 Vision. The Central Eastside is a large, multimodal and vibrant employment district where existing industrial and distribution businesses continue to thrive while the district's job base grows and diversifies to attract new and emerging industries.

The new investment on this site would broaden the use mix in the Central Eastside, reinforce the Central City's role as the region's premiere location for entertainment and tourism, and support a positive image of the city as a vibrant, healthy community.

Since the site is at the edge of the industrial area, and since the concert venue would operate in the evenings, the proposal would not significantly impact neighboring industrial businesses, which operate primarily in the daytime.

The Adjustment to allow truck loading from the SE Main Street right-of-way is supported by PBOT (Exhibit E-2) and would make efficient use of urban space by avoiding the need for a separate truck loading area on-site.

For these reasons, staff finds the proposal is consistent with the Central City 2035 Plan.

Summary
With the conditions of approval recommended by PBOT for the transportation demand management plan and the Angle Loading Permit, staff finds the proposal is consistent with the classifications of adjacent streets and with the desired character of the area. With the condition of approval, staff finds criterion B is met.

C. If more than one Adjustment is being requested, the cumulative effect of the Adjustments results in a project which is still consistent with the overall purpose of the zone; and

Findings: Zoning Code Section 33.140.030.C describes the purpose of the IG1 zone:

The General Industrial zones are two of the three zones that implement the Industrial Sanctuary map designation of the Comprehensive Plan. The zones provide areas where most industrial uses may locate, while other uses are restricted to prevent potential conflicts and to preserve land for industry. The development standards for each zone are intended to allow new development which is similar in character to existing development. The intent is to promote viable and attractive industrial areas.

1. *General Industrial 1. IG1 areas generally have smaller lots and a grid block pattern. The area is mostly developed, with sites having high building coverages and buildings which are usually close to the street. IG1 areas tend to be the City's older industrial areas.*

2. *General Industrial 2. IG2 areas generally have larger lots and an irregular or large block pattern. The area is less developed, with sites having medium and low building coverages and buildings which are usually set back from the street.*

As stated in the findings for criterion B, the new building would cover most of the lot and would be close to each of the abutting streets, and the quality building design would contribute to a more attractive industrial area. Staff finds the proposal is therefore consistent with the purpose statement above. The effects of the two Adjustment requests are to allow a smaller area of the roof to be ecoroof and to allow the SE Main Street right-of-way to be used for truck loading when needed. Whether considered individually or cumulatively, these effects do not detract from the proposal's consistency with the purpose of the IG1 industrial zone. Staff finds criterion C is met.

D. City-designated scenic resources and historic resources are preserved; and

Findings: City-designated scenic resources are identified on zoning maps with an "s," and historic resources are identified either with a dot or as being within the boundaries of a Historic or Conservation district. As there are no scenic resources or historic resources mapped on the subject site (Exhibit B), this criterion is not applicable.

E. Any impacts resulting from the Adjustment are mitigated to the extent practical; and

Findings: The Adjustment to waive the requirement for an on-site truck loading area would be mitigated by the truck loading area within the SE Main Street right-of-way. Though loading areas within the right-of-way do not count toward the Zoning Code requirement, the proposed loading area would be adjacent to the building's loading and staging room (Exhibit A-8, page 2) and would meet the dimensional requirements that would apply to an on-site loading area (Zoning Code Sections 33.266.310.C.2.c and 33.266.310.D.1).

The Adjustment to the ecoroof requirement would be mitigated by above-ground planters that would not count as ecoroofs but would create similar benefits. This Adjustment is also mitigated by the applicant's plan to paint un-planted roof areas white to reduce heat island impacts.

Staff finds the impacts of both Adjustment requests are mitigated to the extent practical and that criterion E is therefore met.

F. If in an environmental zone, the proposal has as few significant detrimental environmental impacts on the resource and resource values as is practicable;

Findings: Environmental overlay zones are designated on zoning maps with either a "p" (Environmental Protection overlay zone) or a "c" (Environmental Conservation overlay zone). As there are no environmental overlay zones mapped on the subject site (Exhibit B), this criterion is not applicable.

DEVELOPMENT STANDARDS

Unless specifically required in the approval criteria listed above, this proposal does not have to meet the development standards in order to be approved during this review process. The plans submitted for a building or zoning permit must demonstrate that all development standards of Title 33 can be met or have received an Adjustment or Modification via a land use review prior to the approval of a building or zoning permit.

CONCLUSIONS

Staff finds the proposal for a new concert venue on this site would not negatively impact the industrial area, and that adequate public services are available to support the proposal.

The proposed Adjustments to the loading and ecoroof requirements are consistent with the purpose of the standards to be modified, with the character of the area, and with the purpose of the IG1 zone. Impacts from the Adjustments would be mitigated to the extent practical.

With the recommended conditions of approval listed below, staff finds that each of the applicable Conditional Use Review and Adjustment Review approval criteria are met. With these conditions, staff recommends approval of the proposal.

TENTATIVE STAFF RECOMMENDATION

(May be revised upon receipt of new information at any time prior to the Hearings Officer decision)

Approval of Conditional Use Review to establish a Major Event Entertainment use on this site; and

Approval of two Adjustments:

- To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c).

- To reduce the amount of ecoroof area required from 14,617 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 2,100 square feet (Zoning Code Section 33.510.243.B.1).

The approvals are per the approved plans, Exhibit C-1 through C-4, and subject to the following conditions of approval:

A. As part of the building permit application submittal, each of the required site plans and any additional drawings must reflect the information and design approved by this land use review as indicated in Exhibits C-1 through C-4. The sheets on which this information appears must be labeled, "Proposal and design as approved in Case File # LU 23-111784 CU AD."

B. Prior to issuance of a building permit for this development, the applicant must receive 30 precent public works concept approval and make any required bond payment for required frontage improvements abutting the site.

C. Prior to issuance of a building permit for this development, the applicant must obtain approval of an annual Angle Loading Permit for the proposed truck loading in SE Main Street. The applicant must adhere to all the conditions and stipulations of said permit for the life of the proposed use. If any conditions are found to be in violation, the applicant may be fined and/or said Angle Loading Permit may be revoked.

D. Prior to issuance of a building permit for this development, the applicant must provide a letter for the record that Prosper Portland, the owner of the property to the south (R673495), acknowledges and accepts the limitations placed upon the site with the proposed truck loading occurring in SE Main Street adjacent to the subject property.

E. The applicant must continually implement the transportation demand management (TDM) measures identified in the TDM plan in Exhibit A-10 that are within their control.

F. The applicant must assess the bike parking capacity on an annual basis for the first 5 years after the concert venue begins operation and then every other year after that. That assessment must include bike count averages for events throughout the year. The applicant must send their assessment to PBOT Development Review and PBOT Active Transportation and Safety. If demand consistently exceeds the provided bike parking, the applicant must work with PBOT on remedies, including but not limited to adding additional bike racks or a contract for offering temporary bike racks during events.

PROCEDURAL INFORMATION

The application for this land use review was submitted on December 22, 2023, and was determined to be complete on May 23, 2024.

Zoning Code Section 33.700.080 states that land use review applications are reviewed under the regulations in effect at the time the application was submitted, provided that the application is complete at the time of submittal, or complete within 180 days. Therefore, this application was reviewed against the Zoning Code in effect on December 22, 2023.

ORS 227.178 states the City must issue a final decision on land use review applications within 120 days of the application being deemed complete. The 120-day review period may be extended at the request of the applicant. In this case, the applicant has not extended the 120-day review period. Unless extended by the applicant, the 120 days will expire on **September 20, 2024.**

Some of the information contained in this report was provided by the applicant**.** As required by Zoning Code Section 33.800.060, the burden of proof is on the applicant to show that the approval criteria are met. The Bureau of Development Services has independently reviewed the information submitted by the applicant and has included this information only where the Bureau of Development Services has determined the information satisfactorily demonstrates compliance with the applicable approval criteria. This report is the recommendation of the Bureau of Development Services with input from other City and public agencies.

Conditions of Approval. If approved, this project may be subject to specific conditions of approval, listed above. Compliance with the applicable conditions of approval must be documented in all related permit applications. Plans and drawings submitted during the permitting process must illustrate how applicable conditions of approval are met. Any project elements that are specifically required by conditions of approval must be shown on the plans and labeled as such.

These conditions of approval run with the land, unless modified by future land use reviews. As used in the conditions, the term “applicant” includes the applicant for this land use review, any person undertaking development pursuant to this land use review, the proprietor of the use or

development approved by this land use review, and the current owner and future owners of the property subject to this land use review.

This report is not a decision. The review body for this proposal is the Hearings Officer who will make the decision on this case. This report is a recommendation to the Hearings Officer by the Bureau of Development Services. The Hearings Officer may adopt, modify, or reject this recommendation. The Hearings Officer will make a decision about this proposal within 17 days of the close of the record. To comment, you may testify at the hearing, submit comments at www.portland.gov/omf/hearings/land-use; email your comments to HearingsOfficeClerks@portlandoregon.gov; write to the Land Use Hearings Officer, 1900 SW Fourth Ave., Suite 3100, Portland, OR 97201; or FAX your comments to 503-823-4347.

You will receive mailed notice of the decision if you write a letter received before the hearing or testify at the hearing, or if you are the property owner or applicant. This staff report will be posted on the Bureau of Development Services website at https://www.portland.gov/bds/zoning-land-use/public-notices. Enter the land use case file number in the keyword search.

Appeal of the decision. The decision of the Hearings Officer may be appealed to City Council, who will hold a public hearing. In the event of an appeal of the Hearings Officer's decision, only evidence previously presented to the Hearings Officer will be considered by the City Council.

You may appeal the decision only if you submit written comments which are received before the close of the record, if you testify at the hearing, or if you are the property owner or applicant. Appeals must be filed within 14 days of the decision. **An appeal fee of $6,079 will be charged.**

Neighborhood associations recognized by the Office of Community & Civic Life may qualify for a waiver of the appeal fee provided that the association has standing to appeal. The appeal must contain the signature of the chairperson or other person authorized by the association, confirming the vote to appeal was done in accordance with the organization's bylaws. Neighborhood associations who wish to qualify for a fee waiver must complete the Type III Appeal Fee Waiver Request for Organizations Form and submit it prior to the appeal deadline. The Type III Appeal Fee Waiver Request for Organizations Form contains instructions on how to apply for a fee waiver, including the required vote to appeal.

Assistance in filing the appeal and information on fee waivers are available from the Bureau of Development Services website: https://www.portland.gov/bds/zoning-land-use/land-use-review-fees-and-types/appeals-fees-and-fee-waivers.

Recording the final decision. If this land use review is approved the final decision will be recorded with the County Recorder. *Unless appealed,* the final decision will be recorded by the Bureau of Development Services.

Expiration of this approval. Generally, land use approvals (except Comprehensive Plan and Zoning Map Amendments) expire five years from the date of the final decision unless a permit has been issued for the approved development. See Zoning Code Section 33.730.130 for specific expiration rules.

Applying for permits. A building permit, occupancy permit, or development permit may be required before carrying out an approved project. At the time they apply for a permit, permittees must demonstrate compliance with:

- All conditions imposed herein;
- All applicable development standards, unless specifically exempted as part of this land use review;
- All requirements of the building code; and

- All provisions of the Municipal Code of the City of Portland, and all other applicable ordinances, provisions and regulations of the City.

Planner's Name: Andrew Gulizia
Date: June 27, 2024

EXHIBITS (not attached unless indicated)

A. Applicant's Statement:

Original submittal
1. Original narrative
2. Original plan set
3. Context images
4. Original stormwater report
5. Original transportation study

May 23, 2024 submittal
6. Letter in response to incompleteness determination letter
7. Revised narrative
8. Revised plan set
9. Revised stormwater report
10. Revised transportation study

June 24, 2024 submittal
11. Operations and maintenance plan for stormwater planters and ecoroofs

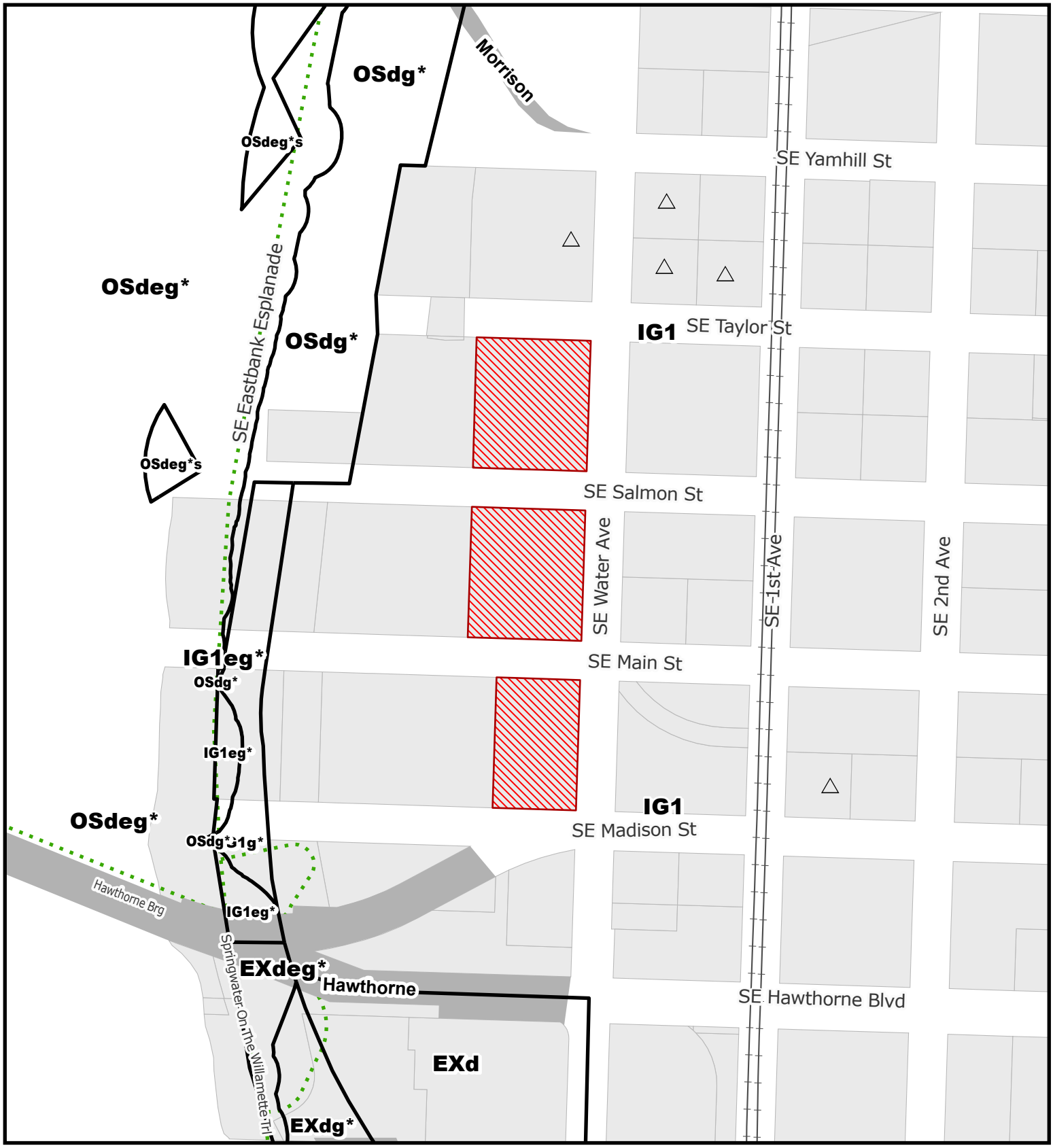
June 26, 2024 submittal
12. Final revised narrative

B. Zoning Map (attached)
C. Plans & Drawings:
   1. Site plan (attached)
   2. East and south building elevations (attached)
   3. West and north building elevations (attached)
   4. Photo simulation (attached)
D. Notification information:
   1. Request for Response
   2. Sign posting instructions
   3. Applicant's statement certifying posting
   4. Notice of Public Hearing, mailed June 20, 2024
   5 Mailing list for Notice of Public Hearing
E. Agency Responses:
   1. Bureau of Environmental Services
   2. Portland Bureau of Transportation
   3. Water Bureau
   4. Fire Bureau
   5. Police Bureau
   6. Site Development Review Section of BDS
   7. Life Safety Review Section of BDS
   8. Parks and Recreation - Urban Forestry Division
F. Correspondence (none received)
G. Other:

1. Land use review application
2. Incompleteness determination letter, dated January 12, 2024
3. Applicant email withdrawing bike parking Adjustment request, received June 25, 2024

H. Hearing Exhibits:

The Bureau of Development Services is committed to providing equal access to information and hearings. To request an accommodation or alternative format of communication, please contact us at least five business days prior to the hearing at 503-823-7300 (TTY 503-823-6868).



For Zoning Code in Effect Post October 1, 2022

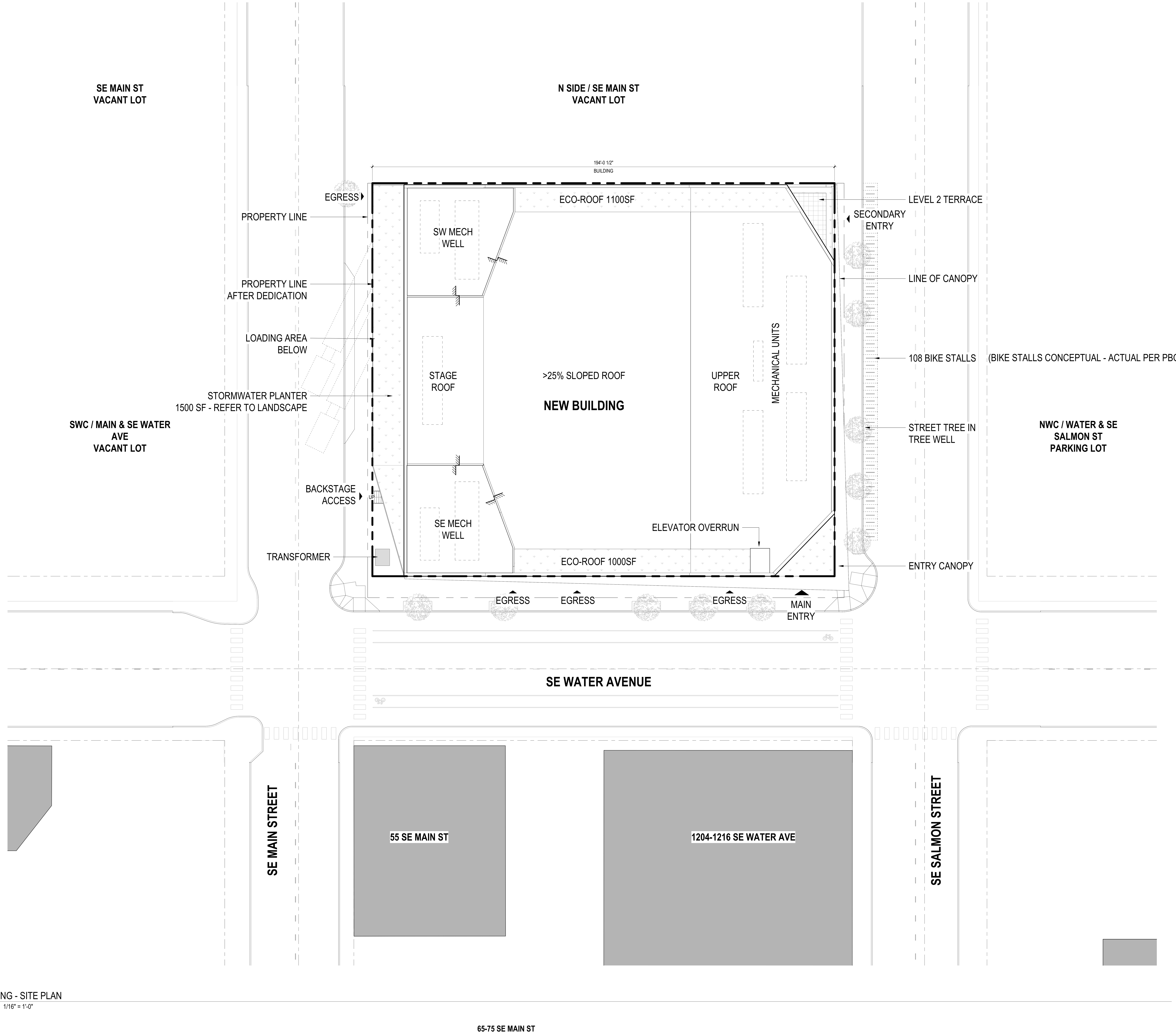
ZONING

THIS SITE LIES WITHIN THE:
CENTRAL CITY PLAN DISTRICT
CENTRAL EASTSIDE SUBDISTRICT

Site
Historic Landmark
Recreational Trails

File No. LU 23 - 111784 CU AD
1/4 Section 3130
Scale 1 inch =200 feet
State ID 1S1E03AD 3602
Exhibit B Jan 16, 2024

Portland Hearings Office
Case #LU 23-111784 CU AD
Bureau Case #LU 23-111784 CU AD
Exhibit #5
Page 23 of 27



1 Z090 ZONING - SITE PLAN
SCALE: 1/16" = 1'-0"

SITE DATA TABLE

SITE AREA:
34,860 SF

SITE AREA AFTER DEDICATION:
32,040 SF

BUILDING COVERAGE:
31,600 SF

TOTAL BUILDING AREA:
98,500 SF

VENUE CAPACITY:
APPROX 3,800 OCCUPANTS

CENTRAL EASTSIDE VENUE

NWC/MAIN & SE WATER AVE
PORTLAND, OR 97214

ARCHITECT

LEVER

4713 N. Albina Avenue,
4th Floor Portland, OR 97217
T. 503.928.6040
www.leverarchitecture.com

STAMP

NOT FOR CONSTRUCTION

REVISIONS

BIKE PARKING TOTALS

(TABLE 266-6 MAJOR EVENT ENTERTAINMENT)

LONG TERM BIKE PARKING:
REQUIRED: 10 PROVIDED:10

SHORT TERM BIKE PARKING:
3800 OCCS / 40
REQUIRED: 95 PROVIDED: 108

PHASE
SCHEMATIC DESIGN

DATE
DECEMBER 21, 2023

PROJECT NUMBER
271

SCALE
As indicated

SHEET TITLE
ZONING - SITE PLAN

Z090

5/23/2024 2:09:08 PM
Autodesk Docs://Central Eastside Venue (CEV)/Arch_CEV_271_R23.rvt

CENTRAL EASTSIDE VENUE

NWC/MAIN & SE WATER AVE
PORTLAND, OR 97214

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4th Floor Portland, OR 97217
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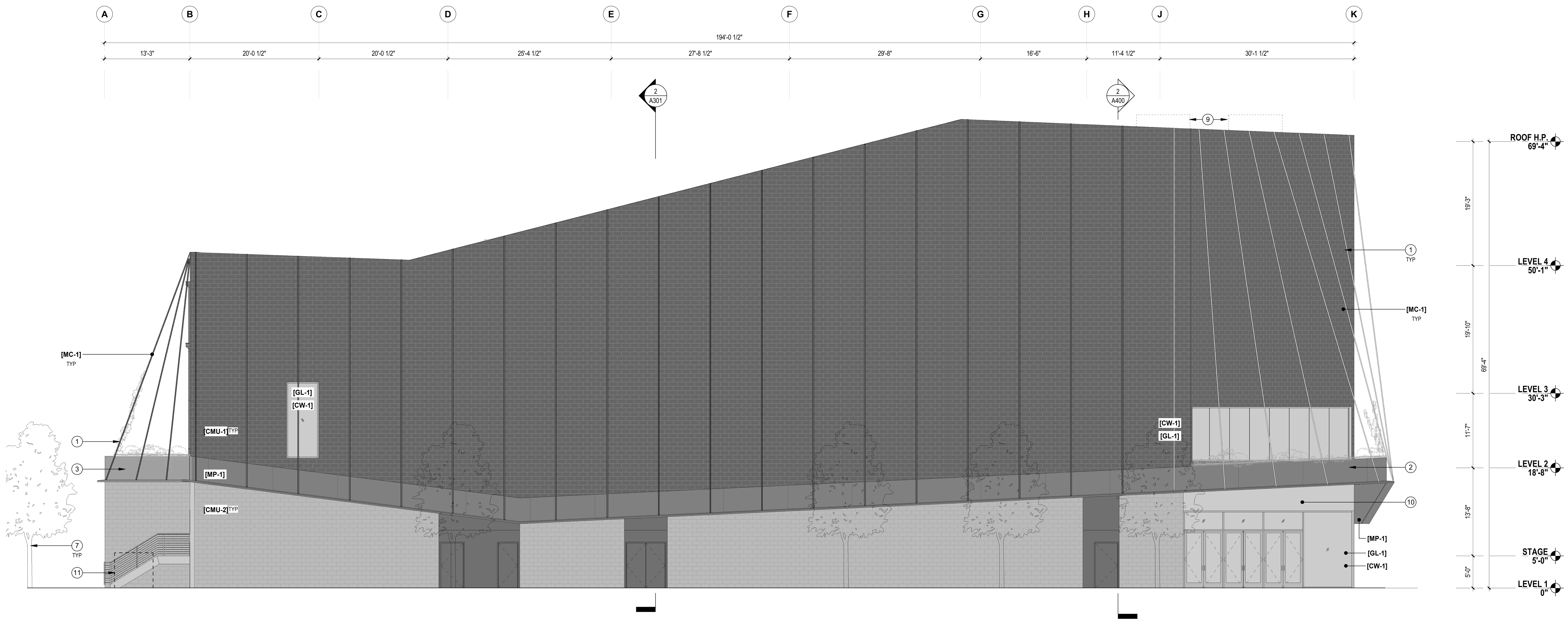
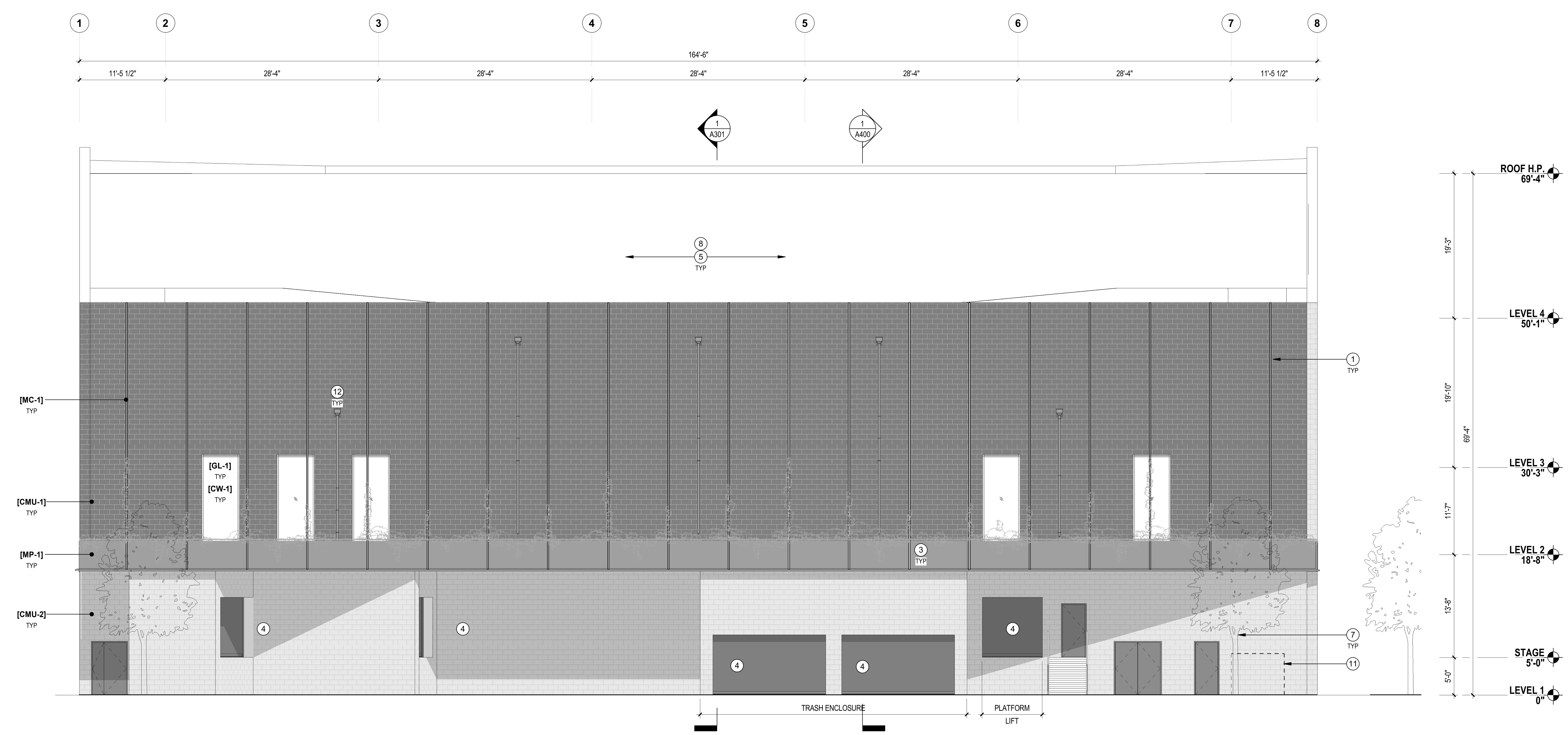
www.leverarchitecture.com

ELEVATION KEYNOTES

1. NON-STRUCTURAL STEEL CLIMBING VINE TRELLIS.
2. CLIMBING VINE PLANTER/ CANOPY. REFER TO WALL SECTION FOR DETAILS.
3. STORMWATER PLANTER.
4. OVERHEAD ROLL-UP DOOR.
5. >25% SLOPED ROOF BEYOND.
6. EXISTING CURB EXTENSION
7. STREET TREE IN TREE WELL.
8. ROOFING MEMBRANE COMPLIANT WITH COOL ROOF REQUIREMENTS.
9. MECHANICAL UNIT BEYOND
10. LED DISPLAY
11. TRANSFORMER
12. SCUPPER & DOWNSPOUT



1 Z201 ZONING - EAST BUILDING ELEVATION
SCALE: 1/8" = 1'-0"



2 Z201 ZONING - SOUTH BUILDING ELEVATION
SCALE: 1/8" = 1'-0"

FINISH + MAT'L LEGEND

[CONC-1]	CAST-IN-PLACE CONCRETE
[CMU-1]	CONCRETE MANSONRY UNIT BOD: MUTUAL MAT'LS GROUND FACE 8-8-16 STANDARD IN SABLE
[CMU-2]	CONCRETE MANSONRY UNIT - FLUTED FACE WITH CLEAR FINISH BOD: MUTUAL MAT'LS 8-8-16 7-SCORE BOND BEAM SPLIT FACE
[CW-1]	ALUMINUM CURTAIN WALL
[CP-1]	PRECAST CONCRETE PAVER
[DP-1]	BITUMINOUS DAMPPROOFING
[GL-1]	1" INSULATED GLAZING UNIT
[GR-1]	EXTERIOR 42" GUARDRAIL BOD: STEEL PIPE + CARL STAHL X-TEND CABLE MESH
[GR-2]	BALCONY 42" GUARDRAIL BOD: REFER TO OWNER STANDARD
[HR-1]	HANDRAIL
[INSUL-1]	BATT INSULATION
[INSUL-2]	MINERAL WOOL INSULATION
[INSUL-3]	POLYISOCYANURATE INSULATION
[INSUL-4]	EXPANDED POLYSTYRENE INSULATION
[INSUL-5]	EXTRUDED POLYSTYRENE INSULATION
[INSUL-6]	CLOSED CELL SPRAY FOAM INSULATION
[MC-1]	STEEL TRELLIS SYSTEM BOD: CARL STAHL GREEN CABLE HEAVY
[MP-1]	COMPOSITE METAL PANEL
[MF-1]	SHEET METAL FLASHING
[MR-1]	MIRROR
[P-1]	PAINT - COLOR 1
[RF-1]	60 MIL SINGLE-PLY PVC ROOF
[RF-2]	2-PLY SBS ROOF ASSEMBLY
[SAM-1]	ASPHALTIC FLASHING MEMBRANE
[SAM-2]	BUTYL FLASHING MEMBRANE
[SAM-3]	HIGH-TEMP FLASHING MEMBRANE
[WOM-1]	RECESSED WALK-OFF MAT
[WP-1]	BELOW GRADE WATERPROOFING - BENTONITE
[WP-2]	BELOW GRADE WATERPROOFING - SHEET MEMBRANE
[WR-1]	WATER-REPELLANT COATING
[WR-2]	WATER-REPELLANT + GRAFFITI COATING
[VPR-1]	INTERIOR VAPOR RETARDER
[VPR-2]	ROOF VAPOR RETARDER
[VPR-3]	UNDER-SLAB VAPOR RETARDER

STEEL TRELLIS TOTALS

QTY:65
VARIED LENGTHS
LONGEST: 60' - 0" SHORTEST: 36' - 6"

STAMP

NOT FOR CONSTRUCTION

REVISIONS

PHASE
SCHEMATIC DESIGN

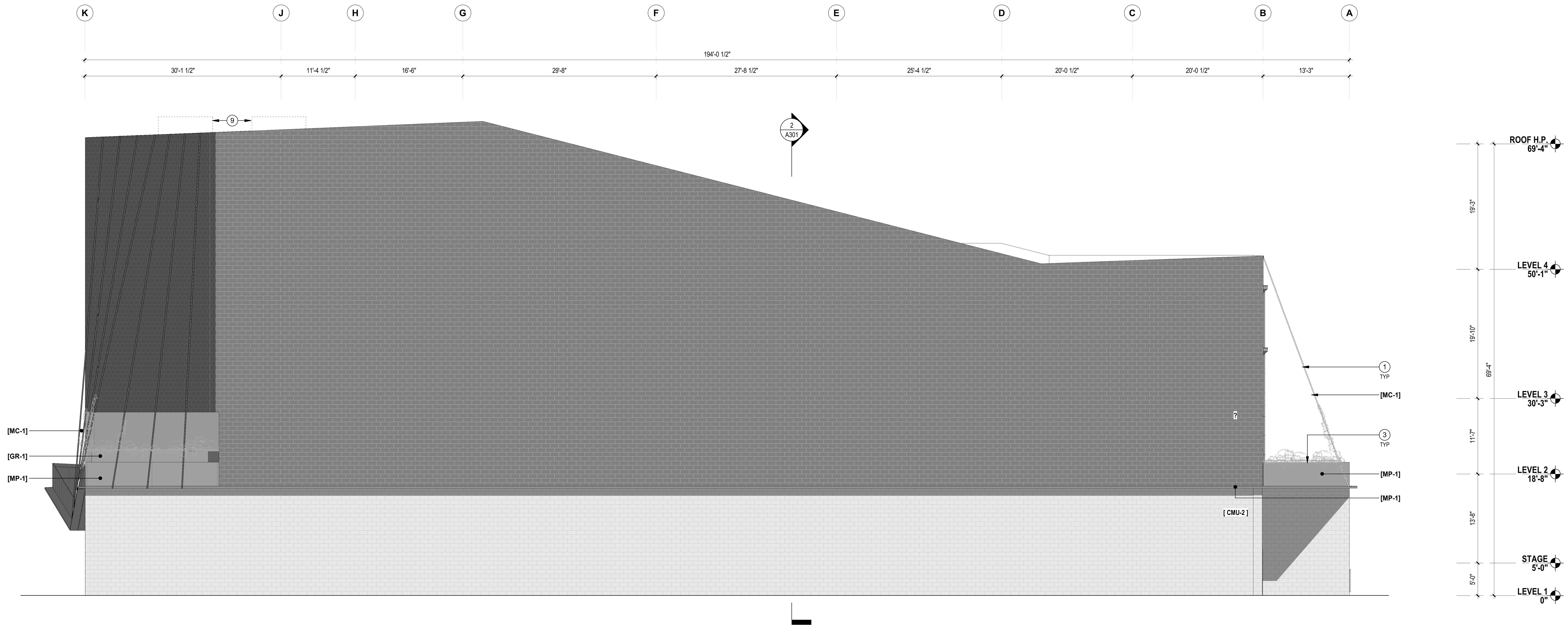
DATE
DECEMBER 21, 2023

PROJECT NUMBER
271

SCALE
As indicated

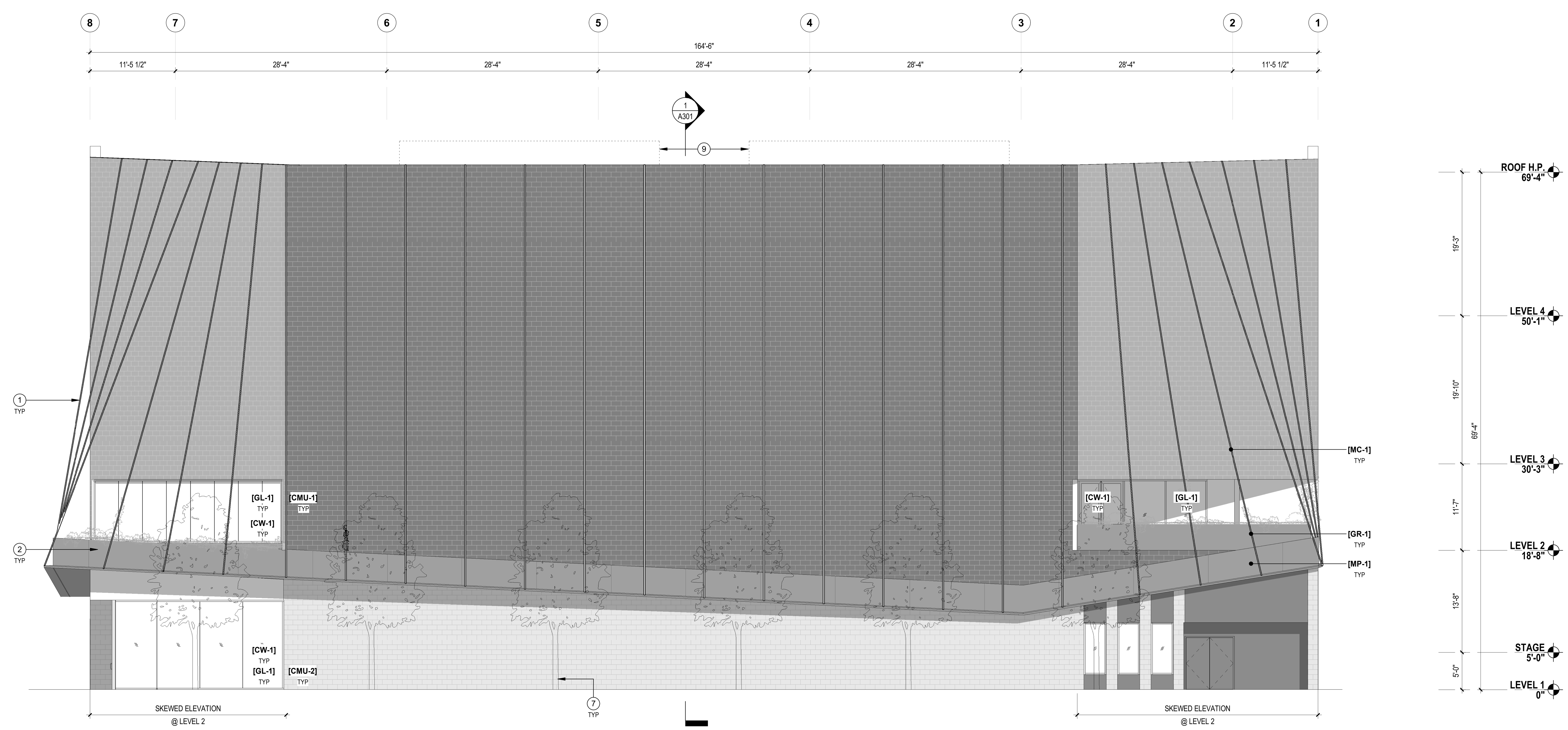
SHEET TITLE
EXTERIOR BUILDING ELEVATIONS - SOUTH & EAST

Z201



2 Z202 ZONING - WEST BUILDING ELEVATION

SCALE: 1/8" = 1'-0"



1 Z202 ZONING - NORTH BUILDING ELEVATION

SCALE: 1/8" = 1'-0"

3/9/2024 1:16:40 PM
Autodesk Docs://Central Eastside Venue (CEV)/Arch_CEV_271_R23.rvt

ELEVATION KEYNOTES

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FINISH + MAT'L LEGEND

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CENTRAL EASTSIDE VENUE

NWC/MAIN & SE WATER AVE
PORTLAND, OR 97214

ARCHITECT

LEVER

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4th Floor Portland, OR 97217
T. 503.928.6040
www.leverarchitecture.com

STAMP

NOT FOR CONSTRUCTION

REVISIONS

PHASE
SCHEMATIC DESIGN

DATE
DECEMBER 21, 2023

PROJECT NUMBER
271

SCALE
As indicated

SHEET TITLE
EXTERIOR BUILDING ELEVATIONS - NORTH & WEST

Z202


tonight: incididunt ut labore et dolor
tonight: incididunt ut labore et dolor

Portland City Auditor
Hearings Office

HearingsOfficeClerks@PortlandOregon.gov

503-823-7307

DECISION OF THE HEARINGS OFFICER

I. GENERAL INFORMATION

File Number: **LU 23-111784 CU AD (Hearings Office # 4240010)**

Applicant's Representative: Suzannah Stanley Mackenzie
1515 SE Water Ave., Ste. 100
Portland OR 97214
(971) 346-3808
sstanley@mcknze.com

Applicant: Johnathan Malsin
Beam Development
1001 SE Water Ave., Ste. 400
Portland, OR 97214

Property Owner's Agent: Paul Gagliardi
PDC dba Prosper Portland
222 NW 5th Ave.
Portland, OR 97209

Property Owner: PDC dba Prosper Portland
220 NW 2nd Ave. #200
Portland, OR 97209

Hearings Officer: William Guzman

Bureau of Development Services (BDS) Staff Representative: Andrew Gulizia

Site Address: west side of SE Water Ave. between SE Salmon St. and SE Main St.

Legal Description: LOT 1 TL 3602, PARTITION PLAT 2016-7; LOT 1 TL 4305, PARTITION PLAT 2016-8; LOT 1 TL 1705, PARTITION PLAT 2016-

Tax Account Number: R649670250, R649670290, R649670330

State ID Number: 1S1E03AD 03602, 1S1E03AD 04305, 1S1E03AD 01705

Quarter Section: 3130

Neighborhood: Buckman, contact John Rose or Josh Baker at buckmanlandusepdx@gmail.com

Business District: Central Eastside Industrial Council, contact ceic@ceic.cc.

District Coalition: Southeast Uplift, contact at operations@seuplift.org

Plan District: Central City (Central Eastside Subdistrict)

Zoning: IG1 – General Industrial 1

Land Use Review: Type III, CU AD Conditional Use Review and Adjustment Review

Public Hearing: The hearing was opened at 1:01 pm on July 10, 2024, via the Zoom platform and ended at 3:51 pm. The record was held opened until 4:30 p.m. Jully 17, 2024 for new evidence, 4:30 p.m. July 24, 2024 for Rebuttal Response to new evidence and until 4:30 p.m. July 31, 2024 for Applicant final argument/rebuttal. The record was closed on July 31, 2024.

Testified at the Hearing:

Andrew Gulizia
Damien Hall
Michael Pina
Carolyne Holcomb
Patrick Fleming
Preston Greene
Jaime Dunphy
Marshall Runkel
Tom Lipton
Bob Sallinger
Logan Vickery
Sheena Taylor
Joseph Perez

Initial Proposal:
At the time of the Hearing the applicant proposed to construct a new, 62,000-square-foot building on this site to be used as a concert venue with 1,280 seats and a maximum spectator capacity of 3,500. The applicant requests Conditional Use Review approval for a new Major Event Entertainment use in the IG1 zone. Type III Conditional Use Review is required by Zoning Code Sections 33.140.100.C and 33.815.040.A.1. The applicant also requests approval of two Adjustments to Zoning Code requirements for this project:

• To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c).

• To reduce the amount of ecoroof area required (Zoning Code Section 33.510.243.B.1).

Relevant Approval Criteria:
To be approved, this proposal must comply with the approval criteria of Title 33, the Portland Zoning Code. The applicable approval criteria are:

• Zoning Code Section 33.815.215.A-D (Conditional Use Review); and
• Zoning Code Section 33.805.040.A-F (Adjustment Review).

II. ANALYSIS

The Record
The record in this matter includes all Exhibits from the Planner's file marked A – G (no F Exhibits) and any Hearings Office Exhibits received marked Exhibits H-1 through H-54. Applicant objects to Exhibit H-41 as being submitted during the period to respond to new evidence but not being responsive to any submission during the initial open record period. The Hearings Officer finds that the transportation-related issues raised arguably touch upon or expand upon Exhibit 35 (which was submitted during the open record period) and can be considered timely and responsive. The record also includes all testimony received during the Hearing held on July 10, 2024; an audio recording of this Hearing is available online. Note that some submissions included links to outside websites or files. These are not part of the record and the information on these links was not viewed by the Hearings Officer.

Changes to Proposal, Notice of Hearing, and Motion(s) Continuance
Title 33.730.030 governs Type III Procedures stating: "A Type III procedure requires a public hearing before an assigned review body." Subsections B, E, and F govern neighborhood contact and notice requirements, notice of a request, and decision by review body if site is in City of Portland.

Some comments suggest that notice was inadequate or that a continuance is necessary given some testimony at the hearing. For example, Exhibit H33 suggests the following:

> "At the hearing, another regulatory mechanism for enabling the applicant to use the public right-of-way for loading was suggested. If another method is being proposed, the Hearings [Officer] must reopen the record to allow the correct regulatory mechanism to be evaluated by all parties."

In Exhibit H39 the author argues:

> "[T]he city did the bare minimum on outreach required by law and failed to reach out to either groups involved in the Central City Plan or the Green Roof Mandate. While this may not be required, the city is well aware of groups that have vested interest in this issue. This project is too big and too high profile for the city to rely on minimum outreach requirements."

The Hearings Officer finds that the City provided legally sufficient notice of the Applicant's proposal through the notice of Hearing to satisfy Title 33 based on the City's testimony and the following statement in the Staff Report: "Signs notifying neighbors of the public hearing were posted on June 6, 2024 (Exhibit D-3) and a 'Notice of Public Hearing' was mailed to neighbors on June 20, 2024 (Exhibits D-4 and D-5)."

Regarding changes that require a continuance of a Hearing, the Administrative Rules governing City of Portland land use Hearings include the following instruction in ADM 9.02.K set forth below for easy reference (Changes to a Land Use Application or Applicable Criteria):

> 1. The Hearings Officer may consider a substantial change to a land use application or applicable criteria, made after the Bureau issues the staff report, only if the applicant submits a signed waiver of the 120-day deadline for final action on the application.
>
> 2. If an application is amended and the hearing notice no longer accurately describes the amended application, the Bureau must issue a new hearing notice.

The Hearings Officer finds that the testimony and suggested amendments do not rise to a substantial change in the application, the applicable criteria are the same as prior to the Hearing, and the hearing notice still accurately describes the proposal. The Hearings Officer denies an additional open record period and denies a continuance of the Hearing.

City Bureau Responses

The City Bureaus were invited to submit a response or objection to the applicant's proposal and request for adjustments. A "Request for Response" was sent to City agencies May 29, 2024 (Exhibit D-1). The following City reviewers responded:

- The Bureau of Environmental Services (BES) evaluated the approval criterion related to sanitary sewer service and stormwater disposal. The response is referenced in the findings for Zoning Code Section 33.815.215.A.4, below. (Exhibit E-1)

- PBOT evaluated the approval criteria related to the transportation system. The response is referenced in the findings for Zoning Code Section 33.815.215.A.1-3, below. (Exhibit E-2)

- The Water Bureau responded with no concerns. (Exhibit E-3)

- The Fire Bureau responded with information on building permit requirements and no objections to approval. (Exhibit E-4)

- The Police Bureau responded that police can adequately serve the proposed development. (Exhibit E-5)

- The Site Development Review Section of the Bureau of Development Services (BDS) responded with information on building permit requirements and no objections to approval. (Exhibit E-6)
- The Life Safety Review Section of BDS responded with information on building permit requirements and no objections to approval. (Exhibit E-7)

- The Urban Forestry Division of the Parks Bureau responded with information on street tree requirements and no objections to the land use review proposal. (Exhibit E-8)

The Opposition and Decision

City Council drafts Title 33 and provided the following direction to the Hearings Officer deciding this Title 33 land use application. Title 33.730.030.F.3: "The review body may adopt the Director of BDS's report and recommendation, modify it, or reject it based on information presented at the hearing and in the record."

The City's recommendation in the Staff Report (Exhibit H-5), based in part on the lack of opposition from the City bureaus, is to approve the proposal with adjustments granted and the inclusion of several conditions. The Staff Report is modified by Exhibit H-6's suggested condition of approval (PBOT Memo). The Applicant agrees with the findings and recommendation of approval contained in the Staff Report and Recommendation and is also amenable to imposition of the revised conditions of approval in the Staff Memo. The City Bureaus have no objections and only suggested conditions.

After independently reviewing the record and the applicable approval criteria the Hearings Officer adopts the Staff Report and its recommendation of approval. The Hearings Officer finds the City's analysis thorough and persuasive.

Therefore, this decision is going to focus on the opposition to the proposal to document the issues and explain why the Hearings Officer ultimately ruled to approve the proposal despite issues raised by the public. In full disclosure and transparency, throughout this decision the Hearings Officer liberally utilizes text from sources in the record deemed persuasive and adopts the text either through copy/paste feature or by reference.

Bike Parking

Initially, Applicant sought a third Adjustment request to Zoning Code Section 33.266.200.B.1 to reduce the minimum number of on-site, short-term bike parking spaces from 32 to zero. The applicant had proposed to construct bike parking in the public right-of-way adjacent to the site as justification for this Adjustment. After discussion with the Portland Bureau of Transportation (PBOT), the applicant decided to withdraw this Adjustment request (Exhibit G-3).

At the time of the Hearing and as described in the Staff Report, the proposal is for the applicant to pay into PBOT's bike parking fund when the building permit is issued, as required by Zoning Code Section 33.266.210.E.1.b when there is insufficient space on-site to provide the required short-term bike parking. PBOT would then construct and maintain bike parking in

the public right-of-way. The public is often critical of payment of funds in lieu of strictly adhering to development standards. This criticism must be lodged with City Council who are the elected officials with authority to legislate the opportunity to choose a payment into the fund. It would be an overreach by the quasi-judicial Hearings Officer to unilaterally foreclose this avenue to approval.

In Exhibit H19 Bike Loud (through Aaron Kuehn, Board Chair of BikeLoudPDX) raises a couple concerns regarding construction interruptions and the width of Salmon street suggesting the following recommendations:

> "Bike racks are installed diagonally to reduce handlebar conflicts.
> Security, lighting, and covering for short-term bicycle parking.
> Electrical outlets for e-bike charging, and larger spaces for cargo bike parking.
> All bicycle parking is ready for the very first event at this concert venue.
> Bike racks could be installed on concrete panels with tree wells in between."

PBOT's representative responded to these recommendations and concerns in an email included in the record marked Exhibit H34. This exhibit also includes Bike Loud's continued objection considering their concerns unresolved.

The Hearings Officer notes the following from PBOT's submission included in the Staff Report (Exhibit H5 at page 8):

> "In accordance with 17.88.020, the proposed project will be required to dedicate and reconstruct the abutting frontages to City standards by providing a 12-ft wide pedestrian corridor along SE Salmon and SE Main streets, and a 15-ft wide corridor along SE Water Street. These improvements will be reviewed through a Public Works permit, which is to receive 30 percent concept approval and bond payment prior to issuance of the building permit. Additional frontage improvements such as street lighting, striped pedestrian crossings, curb extensions, signage, and preparation of ROW bike parking will also be evaluated at time of Public Works permit review."

In Exhibit H34 PBOT confirms the bike racks get installed diagonally: "By paying into the bike fund, PBOT will install a bank of bike corals along the site's SE Salmon frontage. Standard bike coral racks are already installed diagonally to reduce handlebar conflicts[.]"

In Exhibit H34 PBOT responds:

> "The applicant remains responsible for monitoring bicycle usage and taking additional TDM measures to mitigate the demand. Creating a "Woonerf" or other plaza treatment could be a possibility, but that would be reviewed as either Capitol Improvement Project (CIP) or future partnership with the venue; not associated with this particular Conditional Use development."

Regarding the timing of the installation the Staff Report includes PBOT's goal: "As noted above, all required frontage improvements, payment into the bike fund, and implementation of TDM strategies will be in place by the time the development is complete."

Lastly, the Hearings Officer approves of the PBOT suggested condition agreed to by the Applicant:

> "The applicant must assess the bike parking capacity on an annual basis for the first 3 years after the concert venue begins operation and then every other year after that ending with year 11. That assessment must include bike count averages for events throughout the year. The applicant must send their assessment to PBOT Development Review and PBOT Active Transportation and Safety. If demand consistently exceeds the provided bike parking, the applicant must work with PBOT on remedies, including but not limited to adding additional bike racks or a contract for offering temporary bike racks during events."

In Bike Loud's continued objection they suggest the following: "[We] are not satisfied that this project will improve an already dangerous streetscape or address bicycle parking concerns." The Applicant is not responsible for preexisting conditions in the area that are already causing a dangerous streetscape and all of the bicycle parking concerns were addressed. The Hearings Officer agrees that there can always be more that is done to improve conditions on the ground for bike rider safety but there is only so much that can be accomplished through a land use application and only so much cost for improvements that can be imposed on the developer (example, public right of way improvements and dedications). The Hearings Officer's review of the applicable approval criteria and the proposed conditions lead to the conclusion that the applicable approval criteria have been met.

Train Crossings

The Hearings Officer finds that there are train tracks and crossings in the area of the proposed development. Some of the testimony at the Hearing included concerns about individuals who attend music events climbing over stopped trains to cross the tracks. Additional, written testimony also raised train crossing concerns. For example, in Exhibit H26 a local business owner raised a concern with traffic impacts and safety:

> "What considerations has the proposed development taken in regarding traffic flow and grid lock with the train? As a business owner, I have witnessed and experienced the effects of the train being stopped for up to 40 minutes. Imagine 3,500 people trying to get to a concert and the train is stopped or a band is trying to get to a venue to set up for sound check. I imagine this causing stress and chaos on both ends. The traffic that gets backed up on to I-5 is already a fiasco."

In Exhibit H32 the opposition includes the following written testimony for consideration:

> "Freight trains go thru this area every day, sometimes at slow speed and sometimes faster. They often stop and remain stationary for an indeterminate amount of time. If a concert gets out at 11pm and the train is sitting there for 30 minutes, do you expect people not to cross the tracks to get to their cars? What considerations has the proposed development taken in regarding traffic flow and grid lock with the train? I have personally experienced the effects of the train being stopped for up to 40 minutes. Imagine 3,500 people trying to get to a concert or a band is trying to get to a venue to set up for sound check and the train is stopped. I imagine this causing stress and chaos on both ends. BEAM Development and Colas Development Group, as city planners, must take into account that the train tracks are a major point of concern with this location. Expecting 3500 people to fill the sidewalks and unsafe streets, while passing over live freight train tracks is irresponsible at best."

In Exhibit H33 the following is submitted for consideration:

> "It is impossible for a major entertainment use to meet this important criterion at this site because it is an inherently unsafe place to attract significant new pedestrian [traffic] because of its proximity to train [traffic] that has killed two pedestrians and injured another in the past five years according to the [Staff] Report and Recommendation to the Hearings [Officer].
>
> * * *
>
> During the periods when trains are stopped at crossings, pedestrians regularly choose to ignore safety barriers designed to stop cars and climb over stopped trains. There are no pedestrian crossing protections at any of the five crossings near the site, nor are any new pedestrian safety protections proposed."

Exhibit H35 analyzes the issue at pages 3 -4 concluding the following:

> "Taken together, this analysis indicates that, at a very minimum, 1,000 of the concert attendees, about one-third of the total, will need to cross the tracks on foot to arrive at an event. Unpredictable train crossings that "average 10 minutes"2 will create an incentive for excited attendees to make poor choices, risking their lives, to make it to an event on time. After an event, poor visibility coupled with judgment-impaired attendees crossing train tracks is nothing more than a recipe for disaster.
> Portland Zoning Code (ZC) 33.815.215(A)(3) requires a finding that "the transportation system is capable of supporting the proposed use in addition to the existing uses in the area" including "safety," "impacts on pedestrian circulation." This provision goes on to explain that: "a finding of failure in one or more factors may be acceptable if the failure is not a result of the proposed

> development, and any additional impacts on the system from the proposed development are mitigated."
>
> Locating a major entertainment venue one block from the City's most heavily used train tracks, where lengthy freight trains barrel through in excess of 15 miles per hour, creates pedestrian safety and circulation failures. The applicant identified no mitigation for this significant injection of pedestrian traffic demanding pedestrian rail crossings far in excess of anything that exists today."

PBOT's July 19, 2024 Memo Exhibit H40 includes the following guidance regarding train crossings in the area of the site: "The subject site is does not abut the railroad Right-of-Way, therefore improvements such as an improved crossing is not required of the applicant or project." This is a legally accurate assessment of the situation.

Additionally, the Applicant addresses the opposition in Exhibits H52 and H54.

> "The standard protective devices at rail crossings in Oregon are installed and maintained by the railroad (not the Applicant) per OAR 741-110-0020 to 0090 and 741-115-0010 to 0080."
>
> "The approval standards do not require projecting and accounting for impairment of individual users of the transportation system." The Traffic Impact Study results conclude:
>
> "[T]he proposed use is not expected to result in any material change to the frequency of accidents."

The Hearings Officer finds that the rail crossings and protective devices are not the responsibility of the Applicant to improve or maintain. The Hearings Officer finds that impaired or otherwise poor judgment of individuals (whether concert attendees or not) to ignore the safety devices is not the responsibility of the Applicant. There is no guarantee that the worst case scenario predicted by the opposition won't occur (a train related death of a music event attendee). This finding merely relies on the best evidence in the record and the limited scope of what can be accomplished through a Type III land use review, that the proposal will not increase the risk of a train related death and limits the scope of review to the proposal and the applicable approval criteria. The safety criteria related to the proposal is satisfied.

Construction Disruption

In Exhibit H26 the project opponent raises the following concern: "The construction alone will be a major disruption to my business. * * * I would like to know how the city plans to address parking for the community and business owners during construction and thereafter since it's leveraging itself as building more job opportunities." There is no applicable approval criteria that concerns itself, at this stage of the approval process, with construction noise, delays, impacts. Project opponents may reach out to the City Planner to provide recommendations

about the best way to communicate these concerns as the permit process unfolds and timelines for construction materialize.

Transportation System Impacts

Title 33.815.215 requires analysis of the proposed use to ensure that transportation services are or will be sufficient to serve the use. PBOT submitted analysis into the record (Exhibit E-2) incorporated into the Staff Report finding that subsections A.1, A.2, and A.3 are satisfied. See Exhibit H5 pages 4 – 9. PBOT's analysis relied on the City's Transportation System Plan's (TSP) classification of the abutting streets, the Applicant's Transportation Impact Study (Exhibit A-10), concluding that although there were no objections, and recommended conditions. The Hearings Officer finds that the TIS is expert testimony whereas the opposition relied on anecdotal inferences that are less persuasive.

Opponents of the proposal included traffic related issues (examples in the record in Exhibits H32 and H35) some of which is included below for easy reference:

> "I used to work in the area and can confirm that there are more permits issued than there are actual parking spots to match. It's naive to expect this venue not to be impacted by that, given artists/buses/trucks arrive on site early in the morning and stay for at least a day if not more, depending on the number of shows booked. Fans also tend to arrive early out of excitement to see their favorite artist, which will certainly impact parking in the surrounding streets. Employees in the area already struggle to find parking for the businesses already established. Add on top of that the customers shopping at said businesses, I just do not see how it is even remotely possible for the applicant to believe they will not have any affect on daytime parking in the area. Your assessment that 915 parking spots will be needed for a sold out weekday/weekend show of 3500 capacity is misguided. What is that based on?" Exhibit H32

Applicant responds, arguing that "project opponents have provided no evidence (expert or otherwise) of the inadequacy of public services to support the proposed venue." The Hearings Officer finds that compliance with the applicable approval standard is demonstrated by substantial expert evidence in the record. PBOT provides a detailed written response to this criterion [Staff Report Exhibit E-2; see also, Exhibit 16, at 2]. As expressly determined by PBOT and as adopted by the Staff Report, PBOT found that the proposed conditional use project is consistent with the surrounding street designations of the Transportation Element of the Comprehensive Plan and TSP classifications" [Id.; see also, Exhibit 5, at 4].

Further, the Applicant's Traffic Impact Study ("TIS") [Staff Report Exhibit A-10], contains a detailed discussion of how the proposed use is appropriate for the site's traffic street designations identified in Table 1 of the TIS [Staff Report Exhibit A-10, at 57]. The design classifications (SE Salmon Street and SE Main Street are Local Streets, and SE Water Avenue is a Neighborhood Main Street) are also suited for the proposed land use [Id.; see also, Staff Report Exhibit A-12, at 5].

The Applicant further addresses each evaluation factor and responds to oppositional testimony raised during the course of the proceedings in Exhibit H54 that the Hearings Officer adopts and incorporates herein by reference.

The Hearings Officer finds that adjacent and nearby streets will continue to fully accommodate truck movements and all modes of transportation. In addition, the Applicant is required to improve the street frontages of the proposed venue to feature wider sidewalk corridors on SE Main Street and SE Salmon Street, consistent with their local street designations in a Pedestrian District and along SE Water Avenue, consistent with its Major City Walkway and Neighborhood Main Street designations. Such improvements will be reviewed through a Public Works Permit [Exhibit 5 at 8]. With conditions, the proposal meets the applicable approval criteria related to transportation impacts.

Truck Loading Adjustment

Applicant seeks the following adjustment, "To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c). The applicant proposes to create 2 truck loading spaces which are primarily in the public right-of-way adjacent to the site."

Zoning Code Section 33.266.310.A states the purpose of the on-site loading space requirement:

> "A minimum number of loading spaces are required to ensure adequate areas for loading for larger uses and developments. These regulations ensure that the appearance of loading areas will be consistent with that of parking areas. The regulations ensure that access to and from loading facilities will not have a negative effect on the traffic safety or other transportation functions of the abutting right-of-way."

The applicant proposes to use the SE Main Street right-of-way adjacent to the site for truck loading when needed, and this Adjustment is necessary because the Zoning Code requires loading areas that are on-site rather than in the right-of-way. However, the proposal would still accommodate two large trucks simultaneously, as required by Zoning Code Section 33.266.310.C.2.c, and the loading area would be as large as would be required by Zoning Code Section 33.266.310.D.1. The street would not have the appearance of a loading area or parking area when not in use for truck loading, and using the public street for loading rather than creating a dedicated loading area on-site reduces visual impacts by reducing the amount of pavement area required for the proposal. PBOT evaluated this proposal and found that using SE Main Street for truck loading in this case would not have a negative effect on traffic safety or other transportation functions in the right-of-way, as long as the applicant obtains and maintains continuous compliance with an Angle Loading Permit (Exhibit E-2). For these reasons, and with the condition of approval recommended by PBOT to require the Angle Loading Permit, staff finds the Adjustment request equally meets the purpose of the standard.

The appearance of the loading areas will be consistent with that of required parking areas. Here, there are no required on-site parking areas, and the proposed loading areas will be visually standard loading areas consistent with required setbacks, and indistinguishable when trucks are not present from other loading areas. Similarly, the Staff Report expressly found that the street would not have the appearance of a loading area or parking area when not in use for truck loading, and using the public street for loading rather than creating a dedicated loading area on-site reduces visual impacts by reducing the amount of pavement area required for the proposal. Exhibit 5, at 12. Thus, the purpose of ensuring that "appearance of loading areas will be consistent with that of parking areas" is equally or better met by the proposed adjustment.

The Applicant has provided a detailed analysis of loading-related truck movements and traffic control plans to ensure traffic safety and continuous transportation functionality while trucks are loading and accessing the loading area. The TIS includes a traffic control plan illustrating how vehicle, bike, and pedestrian travel will be maintained on SE Main Street during the time that trucks are loading. The final measures and improvements are subject to the public works and angle loading permitting process, but the Applicant has presented feasible plans that achieve the following traffic safety measures:

- SE Main Street remaining accessible to two-way vehicular and bicycle traffic at all times. Even with the largest trucks loading, no less than 21.6 feet of the street will remain usable for vehicles. 20 feet is the standard minimum width to accommodate two-way traffic.

- Full signage and certified flagger support for truck movements to access the loading area.

- Swinging gate that closes the sidewalk and landscape area, directing pedestrians to use the sidewalk on the other side of SE Main Street when trucks are present in the loading area.

Further, construction of the venue would result in improvements to adjacent rights-of-way resulting in substantial improvement for transportation functionality of the adjacent rights-of-way. The improvements are listed at Table 21 of the TIS and benefit all modes of transportation [Staff Report Exhibit A-10, at 55-56]. Currently, the abutting street improvements do not meet City standards and result in conflicts between modes. Exhibit 48, at pages 2 and 3, show a pick-up truck of a local services provider navigating the current illegal angle parking on SE Salmon and lack of sidewalk improvements resulting in pedestrians in the vehicular travelway.

City staff evaluated and the TIS and concurred with Applicant, finding that the loading area adjustment in this case would not have a negative effect on traffic safety or other transportation functions in the right-of-way, as long as the Applicant obtains and maintains continuous compliance with the appropriate angle loading permit determined by PBOT [Staff Report Exhibit E-2; Exhibit 16]. The Hearings Officer finds that the adjustment criteria are met.

Ecoroof Adjustments

Applicant seeks an adjustment allowing for a much smaller eco room than that required by the applicable City Code. Opposition testimony is located in Exhibits H18, H30, H39. For easy reference some of that opposition testimony is included below:

> "The proposal does meet the stormwater requirements set by the city and has integrated planters and eco 'net' using stainless cables for plants to grow up the side of the building; these are an effort to mitigate the lack of eco roof coverage. However, the proposal does not quantify the effects of these alternatives relative to the eco roof requirement. The eco roof requirement is not near to being met and it has not been proven that these mitigation efforts will make up an equal effect of the remaining 85% of the ecoroof requirement. These mitigations do not effectively meet the intention of the eco roof requirement and this proposal should be rejected." Exhibit H18
>
> "It is clear that performing arts, concert/theater style buildings and even convention centers can be and have been built with ecoroofs at no sacrifice to the interior uses. We encourage the applicant to consider ecoroofing the entire building including the 25% sloped roof." Exhibit H30.
>
> "The proposed strategies will not provide the myriad benefits provided by a large ecoroof and therefore does not qualify for an adjustment. Beyond compliance with the SWMM, proponents have failed to substantively address any of the benefits that ecoroofs provide. City Council was explicitly trying to achieve more than simply managing stormwater when it put the ecoroof mandate in place. This proposal fails to achieve those multiple benefits. Additionally, proponents seem to rely on cost and feasibility as a basis for proposing alternative strategies. In fact, as expert testimony from City of Portland ecoroof expert, Tom Liptan (retired) indicated, an ecoroof is feasible with the proposed design." Exhibit H39.

In Exhibit H32 the project proponent asks the following question: "City code requires ecoroof percentage and the fact that the applicant is already looking to decrease that amount begs the question: if we just allow an adjustment to the requirement, then what is the point of having a requirement?" The Hearings Officer appreciates this comment but City Council enacted Zoning Code Section 33.805.040.A-F explicitly allowing adjustments when deemed appropriate (when the adjustment can meet the approval criteria). Therefore, it would be an abuse of authority to disregard the approval criteria allowing for an adjustment sought by the Applicant.

The Applicant has the burden of demonstrating that the proposed adjustment equally or better meets the purposes of the ecoroof requirements. Since the hearing, presumably in response to some of the concerns raised by the opposition heard at the Hearing, the Applicant has modified the ecoroof plans in a manner that meets the crtieria. Specifically, the applicant proposes to increase the square footage of ecoroof provided, going from 2,100 to 4,670

square feet [Exhibit 36, at 39] The applicant has also provided additional analysis of the roof design and area required to meet the ecoroof requirement. The outcome of these modifications has been an ecoroof proposal that meets 43% (i.e. 4,670 sq ft of the required 10,872 sq ft) of the unadjusted ecoroof standards, where it previously met only 14% of the unadjusted ecoroof standards (i.e. 2,100 sq ft of 14,617 sq feet).

Further, without this adjustment, construction of an ecoroof would be cost-prohibitive totaling up to nearly $4.2 million to increase the foundation piles and upsize the roof trusses and structural steel elements as found to be necessary to support full ecoroof compliance by DCI Engineers [Exhibit 36] and as demonstrated in the cost analysis prepared by Colas Construction [Exhibit 38]. Therefore, the proposed adjustment meets the overall purpose of the eco-roof requirement by maximizing the amount of ecoroof that can be provided without over-engineering the building so as to be economically infeasible.

Besides the 4,670 square feet of ecoroof area, Applicant also proposes the following: (1) 1,500-square-foot stormwater planter on the south side of the building that exceeds the stormwater management requirements for ecoroof area (Exhibit 36, Floor Plan – Roof; Exhibit 36, Planting Plan); (2) Stainless steel cables would allow plants to climb toward the roof (Staff Report Exhibit C-4); and (3) Planting of new street trees adjacent to the site (Staff Report Exhibits C-1 and E-8).

With these features, the site would be much greener than it is currently and would appear greener than is typical for sites in the industrial area. While most of the new greenery does not qualify as ecoroof area under PCC 33.510.243.B.2, all the new plants and trees will reduce stormwater runoff, improve air quality, mitigate heat island impacts, and provide habitat for birds and insects. The stormwater management requirements for the site will be fully met (Staff Report Exhibit E-1), and the landscaping plan for the ecoroofs and the other planters includes several plant varieties known to attract pollinators (Staff Report Exhibit A-8, at 14-15); thus, the proposed ecoroof design equally meets these goals. See also, Exhibit 36, Roof Floor Plan; and Exhibit 36, Planting Plan. The planters would utilize a geocell grid to prevent soil erosion, and that plantings would be denser than typical. Staff Report Exhibit A-12, at 16. The Applicant also previously submitted an operations and maintenance plan that would promote the long-term success of the planters (Staff Report Exhibit A-11). Again, without these green features, the lot would continue to be a vacant, un-vegetated combination of paving and gravel [Exhibit 45, at 1; Exhibit 48]. Thus, with these measures, the proposed adjustment will exceed the purpose of the eco-roof standards.

Furthermore, the roof will consist of Thermoplastic Polyolefin (TPO) roofing material for heat island reduction. See Exhibit 36, at 2. Specifically, un-planted roof areas would be white TPO roof material. As evident by Applicant's Exhibit 36, such roofing materials have highly reflective properties that effectively reflect solar radiation to reduce heat island impacts. Id. In effect, the proposed adjustment would meet the purpose of the eco-roof standards by reducing heat islands and air temperatures. For all these reasons, the Hearings Officer finds that the proposed adjustment equally meet the purposes of the ecoroof standards.

Future Tenant Concerns

The record contains significant opposition to the future tenant Live Nation. See for example Exhibits H13, H18, H23, H25, H26, H28, H29, H31, H32, H33, and H35. Exhibit H13 includes the following opposition: "This does not go with what Portland is. Portland is a grassroots community. Allowing businesses like this to come in and syphon creativity from local artists will be another dagger to the city." Another example, Exhibit H18 states in pertinent part: "Live Nation has a track record of shady business practices and a history of squeezing out the small local promoters and venue owners in other cities. Portland has a rich music culture that is run almost entirely by local promoters and artists. Allowing Live Nation to enter our city puts this culture at risk. Live Nation should not be allowed to move forward with this project." Some arguments connect this concern with the future tenant to the following approval criteria: PCC 33.815.215 C, "Public benefits of the proposed use outweigh any impacts that cannot be mitigated." See Exhibit H-33. The Hearings Officer finds that these tenant related concerns are not connected to the approval criteria for the land use proposal and cannot be considered. For comparison, the structure's appearance or impacts on the transportation system are clearly related to the proposed use of the development. The use being proposed is Major Event Entertainment, and this does not include the operator (public, private, large, or small). PCC 33.920.230. Demonstrating the point is that the application is not dependent on the proposed venue operator being the operator and should the lease end or be terminated, the owner could contract with a new venue operator. Notably, nearly all of the opposition to the future tenant also was supportive of a new music venue in Portland. The Hearings Officer rejects any opposition to the tenant's alleged business practices as applicable to the approval criteria. The "impacts" criteria in Title 33 relate to the development of a music venue in this location, not the future tenant's business practices when utilizing the music venue.

No Public Subsidy

Project opponents assert that the proposed venue is reliant on receiving a public subsidy [Exhibits 35 and 43]. The Hearings Officer finds that this assertion is not supported by the facts in the record, therefore, this assertion is incorrect and inaccurate. Accordingly, assertions that the conditional use standards be applied differently based on the existence of public subsidy need not be addressed further.

III. CONCLUSIONS

Despite significant and substantial opposition to the proposal, adjustments, and the adequacy of the conditions (contained in both the opposition testimony at the Hearing and the written submissions marked as H-Exhibits), the Hearings Officer finds the proposal meets the approval criteria. On balance, the Hearings Officer finds that, under the facts of this case, the City's and the Applicant's positions are more persuasive than the opposition testimony. The proposal and adjustments with conditions meet the approval criteria. The Hearings Officer approves the proposal, the adjustments, and the conditions hereby adopting the Staff Report as modified in the decision above and in the conditions below. The Staff Report is adopted as the decision in this matter and is attached hereto and incorporated herein by reference. No adjustments to the approvals per the approved plans, Exhibit C-1 through C-4, are permitted

unless it is deemed necessary by the City Planner given the Applicant's post-Hearing modification to the requested adjustment regarding the expanded ecoroof.

IV. DECISION

Approval of Conditional Use Review to establish a Major Event Entertainment use on this site; and

Approval of two Adjustments:

- To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c).

- To reduce the amount of ecoroof area required from 14,617 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 4,670 square feet (Zoning Code Section 33.510.243.B.1).

The approvals are per the approved plans, Exhibit C-1 through C-4, and subject to the following conditions of approval:

A. As part of the building permit application submittal, each of the required site plans and any additional drawings must reflect the information and design approved by this land use review as indicated in Exhibits C-1 through C-4. The sheets on which this information appears must be labeled, "Proposal and design as approved in Case File # LU 23-111784 CU AD."

B. Prior to issuance of a building permit for this development, the applicant must receive 30 percent public works concept approval and make any required bond payment for required frontage improvements abutting the site.

C. Prior to issuance of a building permit for this development, the applicant must obtain approval of the appropriate permit as determined by PBOT for the proposed truck loading in SE Main Street. The applicant must adhere to all the conditions and stipulations of said permit for the life of the proposed use. If any conditions are found to be in violation, the applicant may be fined and/or any applicable permits may be revoked.

D. The applicant must continually implement the transportation demand management (TDM) measures identified in the TDM plan in Exhibit A-10 that are within their control.

E. The applicant must assess the bike parking capacity on an annual basis for the first 3 years after the concert venue begins operation and then every other year after that ending with year 11. That assessment must include bike count averages for events throughout the year. The applicant must send their assessment to PBOT Development Review and PBOT Active Transportation and Safety. If demand consistently exceeds the provided bike parking, the applicant must work with PBOT on remedies, including but not limited to adding additional bike racks or a contract for offering temporary bike racks during events.

William Guzman
William Guzman, Hearings Officer

August 14, 2024
Date

Application Determined Complete:	May 23, 2024
Report to Hearings Officer:	July 1, 2024
Decision Mailed:	August 14, 2024
Last Date to Appeal:	August 28, 2024 by 4:30 p.m.
Effective Date (if no appeal):	August 29, 2024

Conditions of Approval. This project may be subject to a number of specific conditions, listed above. Compliance with the applicable conditions of approval must be documented in all related permit applications. Plans and drawings submitted during the permitting process must illustrate how applicable conditions of approval are met. Any project elements that are specifically required by conditions of approval must be shown on the plans and labeled as such.

These conditions of approval run with the land, unless modified by future land use reviews. As used in the conditions, the term “applicant” includes the applicant for this land use review, any person undertaking development pursuant to this land use review, the proprietor of the use or development approved by this land use review, and the current owner and future owners of the property subject to this land use review.

Appeal of the decision. ANY APPEAL OF THE HEARINGS OFFICER’S DECISION MUST BE E-MAILED TO LANDUSEINTAKE@PORTLANDOREGON.GOV. The appeal application form can be accessed at : Land Use Review Appeals, Land Use Review Appeal Costs and Appeal Fee Waivers | Portland.gov. If you do not have access to e-mail, please telephone (503) 865-6744 for assistance on how to submit the appeal; please allow one business day for staff to respond. **An appeal fee will be charged.**

Who can appeal: You may appeal the decision only if you wrote a letter which is received before the close of the record on hearing or if you testified at the hearing, or if you are the property owner or applicant. If you or anyone else appeals the decision of the Hearings Officer, only evidence previously presented to the Hearings Officer will be considered by the City Council.

EXHIBITS RECEIVED IN THE HEARINGS OFFICE – *SEE NEXT PAGE*
(NOT ATTACHED UNLESS INDICATED)

The exhibits in the land use case file are all assigned a letter (example A-1). The Hearings Office accepts exhibits filed online in its case management system. These exhibits are marked in the lower right hand corner that identifies the exhibit as a "Portland Hearings Office" exhibit. All of these exhibits are designated "H Exhibits" (that is, Hearings Office Exhibits). See the BDS Staff Report for a list of exhibits prior to "H."

Portland City Auditor
Hearings Office

HearingsOfficeClerks@PortlandOregon.gov
503-823-7307

4240010 H Exhibits, Orders, and Other Attachments

Number	Title	Status
Exhibit 1	Schedule Request	Accepted
Exhibit 2	Zoom Participation Instructions	Accepted
Exhibit 3	Notice Of Hearing	Accepted
Exhibit 5	STAFF REPORT **(attached)**	Accepted
Exhibit 6	STAFF MEMO	Accepted
Exhibit 7	Nick Wood Testimony	Accepted
Exhibit 8	Patrick Fleming Testimony	Accepted
Exhibit 9	STAFF PRESENTATION	Accepted
Exhibit 10	Jeff Miller Testimony	Accepted
Exhibit 11	Portland Metro Chamber (PMC) Comments	Accepted
Exhibit 12	OMSI Support Letter	Accepted
Exhibit 13	Live Nation Land Use Comments	Accepted
Exhibit 14	PBOT MEMO	Accepted
Exhibit 15	TRANSPORTATION INFORMATION	Accepted
Exhibit 16	PBOT MEMO ADDITIONAL	Accepted
Exhibit 17	Record Closing Information	Accepted
Exhibit 18	Written Testimony - Kevin Killian	Accepted
Exhibit 19	Written Testimony - Aaron Kuehn	Accepted
Exhibit 20	Applicant Presentation	Accepted
Exhibit 21	Written Testimony - Jaime Dunphy	Accepted
Exhibit 22	LU 23-11784 CU AD 14 day Extension	Accepted
Exhibit 23	Katie Bergen Testimony	Accepted
Exhibit 24	Kate Sena Testimony	Accepted
Exhibit 25	Chad Colwell Testimony	Accepted
Exhibit 26	Debra Krueger	Accepted
Exhibit 27	Carolyne Holcomb Testimony (CEIC)	Accepted
Exhibit 28	Jon Meyer Testimony	Accepted
Exhibit 29	New Evidence - Tori Johnson	Accepted
Exhibit 30	New Evidence - Tom Liptan	Accepted
Exhibit 31	New Evidence - Ronnie Carrier	Accepted
Exhibit 32	K. Jasmine Robb Testimony	Accepted
Exhibit 33	Marshall Runkel Testimony	Accepted
Exhibit 34	Kiel Johnson Testimony (email chain)	Accepted
Exhibit 35	Carrie Richter - New Evidence	Accepted
Exhibit 36	New Evidence - Damien R. Hall	Accepted
Exhibit 37	New Evidence - Damien R. Hall (2 of 3)	Accepted

	3)	
Exhibit 38	New Evidence - Damien R. Hall (3 of 3)	Accepted
Exhibit 39	New Evidence - Bob Sallinger	Accepted
Exhibit 40	PBOT Memo	Accepted
Exhibit 41	H. Lee & Associates, PLLC	Accepted
Exhibit 42	Dunphy - Response to New Evidence 2	Accepted
Exhibit 43	Runkel Updated Testimony	Accepted
Exhibit 44	D. Hall Response to New Evidence 2 of 4 (pt.1)	Accepted
Exhibit 45	D. Hall Response to New Evidence 2 of 4 (pt.2)	Accepted
Exhibit 46	D. Hall Response to New Evidence 2 of 4 (pt.3)	Accepted
Exhibit 47	D. Hall Response to New Evidence 1 of 4	Accepted
Exhibit 48	D. Hall Response to New Evidence 3 of 4 (pt.1)	Accepted
Exhibit 49	D. Hall Response to New Evidence 3 of 4 (pt. 2)	Accepted
Exhibit 50	D. Hall Response to New Evidence 3 of 4 (pt.3)	Accepted
Exhibit 51	D. Hall Response to New Evidence 3 of 4 (pt.4)	Accepted
Exhibit 52	D. Hall Response to New Evidence 4 of 4	Accepted
Exhibit 53	Runkel Further Testimony	Accepted
Exhibit 54	Applicant Final Written Argument (D. Hall)	Accepted

Carmen Rubio, Commissioner
David Kuhnhausen, Interim Director
Phone: (503) 823-7300
TTY: 711
www.portland.gov/bds

STAFF REPORT AND RECOMMENDATION TO THE HEARINGS OFFICER

CASE FILE: LU 23-111784 CU AD
(Pre-Application Conference # 22-128857 PC)
REVIEW BY: Hearings Officer (Hearings Office Case # 4240010)
WHEN: July 10, 2024, at 1:00 PM

This land use hearing will take place online using the Zoom platform. See the instructions on how to participate remotely (online or by phone) at this link: https://www.portland.gov/bds/zoning-land-use/documents/notice-land-use-hearing-lu-23-111784-cu-ad/download or contact the Hearings Office at HearingsOfficeClerks@portlandoregon.gov or 503-823-7307. Additional Hearings Office information is available at www.portland.gov/omf/hearings/land-use.

It is important to submit all evidence to the Hearings Officer. City Council will not accept additional evidence if there is an appeal of this proposal.

BUREAU OF DEVELOPMENT SERVICES STAFF: ANDREW GULIZIA / ANDREW.GULIZIA@PORTLANDOREGON.GOV

GENERAL INFORMATION

Applicant's Representative: Suzannah Stanley
Mackenzie
1515 SE Water Ave., Ste. 100
Portland OR 97214
(971) 346-3808
sstanley@mcknze.com

Applicant: Johnathan Malsin
Beam Development
1001 SE Water Ave., Ste. 400
Portland, OR 97214

Property Owner's Agent: Paul Gagliardi
PDC dba Prosper Portland
222 NW 5th Ave.
Portland, OR 97209

Property Owner: PDC dba Prosper Portland
220 NW 2nd Ave. #200
Portland, OR 97209

Site Address: west side of SE Water Ave. between SE Salmon St. and SE Main St.

Legal Description: LOT 1 TL 3602, PARTITION PLAT 2016-7; LOT 1 TL 4305, PARTITION PLAT 2016-8; LOT 1 TL 1705, PARTITION PLAT 2016-9
Tax Account No.: R649670250, R649670290, R649670330
State ID No.: 1S1E03AD 03602, 1S1E03AD 04305, 1S1E03AD 01705

Quarter Section:	3130
Neighborhood:	Buckman, contact John Rose or Josh Baker at buckmanlandusepdx@gmail.com
Business District:	Central Eastside Industrial Council, contact ceic@ceic.cc.
District Coalition:	Southeast Uplift, contact at operations@seuplift.org
Plan District:	Central City (Central Eastside Subdistrict)
Zoning:	IG1 – General Industrial 1
Case Type:	CU AD – Conditional Use Review and Adjustment Review
Procedure:	Type III, with a public hearing before the Hearings Officer. The decision of the Hearings Officer can be appealed to City Council.

Proposal: The applicant proposes to construct a new, 62,000-square-foot building on this site to be used as a concert venue with 1,280 seats and a maximum spectator capacity of 3,500. The applicant requests Conditional Use Review approval for a new Major Event Entertainment use in the IG1 zone. Type III Conditional Use Review is required by Zoning Code Sections 33.140.100.C and 33.815.040.A.1.

The applicant also requests approval of two Adjustments to Zoning Code requirements for this project:

- To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c). The applicant proposes to create 2 truck loading spaces which are primarily in the public right-of-way adjacent to the site. However, loading areas in the public right-of-way do not count toward the Zoning Code requirement.

- To reduce the amount of ecoroof area required from 14,617 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 2,100 square feet (Zoning Code Section 33.510.243.B.1).

Note: The applicant originally requested three Adjustments, including an Adjustment request to Zoning Code Section 33.266.200.B.1 to reduce the minimum number of on-site, short-term bike parking spaces from 32 to zero. The applicant had proposed to construct bike parking in the public right-of-way adjacent to the site as justification for this Adjustment. After discussion with the Portland Bureau of Transportation (PBOT), the applicant decided to withdraw this Adjustment request (Exhibit G-3). If this land use review is approved, the applicant will pay into PBOT's bike parking fund when the building permit is issued, as required by Zoning Code Section 33.266.210.E.1.b when there is insufficient space on-site to provide the required short-term bike parking. PBOT would then construct and maintain bike parking in the public right-of-way.

Relevant Approval Criteria: To be approved, this proposal must comply with the approval criteria of Title 33, the Portland Zoning Code. The applicable approval criteria are:

- Zoning Code Section 33.815.215.A-D (Conditional Use Review); and
- Zoning Code Section 33.805.040.A-F (Adjustment Review).

The Portland Zoning Code is available online at https://www.portland.gov/code/33.

ANALYSIS

Site and Vicinity: The subject site consists of three undeveloped lots owned by Prosper Portland in the Central Eastside industrial area. The middle lot, which abuts SE Salmon Street to the north, SE Water Avenue to the east, and SE Main Street to the south, is the subject of this development proposal. No new development is proposed for the other two Prosper Portland lots to the north and south, and these lots would continue to be used as parking. The site is at the

western edge of the industrial area, and properties to the north, east, and south of the Prosper Portland property are developed with commercial and industrial buildings. To the west of the subject site is the I-5 freeway right-of-way, and beyond that is the Eastbank Esplanade and the Willamette River. The on-ramp to the Hawthorne Bridge is just south of the site.

Zoning: The IG1 (General Industrial 1) zone is one of the three zones that implement the Industrial Sanctuary map designation of the Comprehensive Plan. The zone provides areas where most industrial uses may locate, while other uses are restricted to prevent potential conflicts and to preserve land for industry. IG1 areas generally have smaller lots and a grid block pattern.

The Central City plan district implements the Central City Plan and other plans applicable to the Central City area. The district implements portions of these plans by adding code provisions which address special circumstances existing in the Central City area.

Land Use Review History: Below are prior land use review decisions that include the subject site. None of these land use review decisions have conditions of approval that affect the current proposal.

- LU 14-235124 LC. 2015 approval of a lot consolidation.
- LU 11-171075 AD. 2011 approval of Adjustments to landscaping and exterior activity requirements for a temporary (3-year) asphalt and concrete processing use. The approval has since expired.
- LU 00-00704 GW AD. 2001 approval of a Greenway Review and Adjustments to landscaping and nonconforming upgrades requirements for a parking lot.
- LU 00-00134 GW. 2000 approval of a Greenway Review for new fencing.
- CU 063-86. 1986 Conditional Use Review approval for fill associated with a Willamette River greenway trail.

Agency Review: A "Request for Response" was sent to City agencies May 29, 2024 (Exhibit D-1). The following City reviewers responded:

- The Bureau of Environmental Services (BES) evaluated the approval criterion related to sanitary sewer service and stormwater disposal. The response is referenced in the findings for Zoning Code Section 33.815.215.A.4, below. (Exhibit E-1)
- PBOT evaluated the approval criteria related to the transportation system. The response is referenced in the findings for Zoning Code Section 33.815.215.A.1-3, below. (Exhibit E-2)
- The Water Bureau responded with no concerns. (Exhibit E-3)
- The Fire Bureau responded with information on building permit requirements and no objections to approval. (Exhibit E-4)
- The Police Bureau responded that police can adequately serve the proposed development. (Exhibit E-5)
- The Site Development Review Section of the Bureau of Development Services (BDS) responded with information on building permit requirements and no objections to approval. (Exhibit E-6)

- The Life Safety Review Section of BDS responded with information on building permit requirements and no objections to approval. (Exhibit E-7)

- The Urban Forestry Division of the Parks Bureau responded with information on street tree requirements and no objections to the land use review proposal. (Exhibit E-8)

Neighborhood Review: Signs notifying neighbors of the public hearing were posted on June 6, 2024 (Exhibit D-3) and a "Notice of Public Hearing" was mailed to neighbors on June 20, 2024 (Exhibits D-4 and D-5). At the time this report was prepared, no public comments had been submitted into the record.

ZONING CODE APPROVAL CRITERIA

Conditional Use Review

33.815.215 Major Event Entertainment
These approval criteria ensure that the potentially large size and impacts of these uses are not harmful to surrounding areas and that transportation services are or will be sufficient to serve the use. The approval criteria are:

A. Public services.

1. The proposed use is in conformance with the street designations shown in the Transportation Element of the Comprehensive Plan;

Findings: PBOT reviewed the proposal and submitted the following response to criterion A.1 (Exhibit E-2):

At this location, the City's Transportation System Plan (TSP) classifies the following abutting streets as follows:

Street Name	*Traffic*	*Transit*	*Bicycle*	*Pedestrian*	*Freight*	*Emergency Response*	*Street Design*
SE Salmon St	*Local Service*	*Local Service*	*Major City Bikeway*	*Local Service in a Ped. Dist.*	*Freight District*	*Minor Response*	*Local Street*
SE Water Ave	*Traffic Access St*	*Local Service*	*Major City Bikeway*	*Major City Walkway in a Ped. Dist.*	*Priority Truck Street*	*Major Response*	*Neighbor-hood Main Street*
SE Main St	*Local Service*	*Local Service*	*City Bikeway*	*Local Service in a Ped. Dist.*	*Freight District*	*Minor Response*	*Local Street*

The proposed Conditional Use project is supportive of the surrounding street designations of the Transportation Element of the Comprehensive Plan and TSP classifications. This criterion is met.

Based on this finding from PBOT, staff finds criterion A.1 is met.

2. If the proposed use will be located in an industrial zone, it will not have a significant adverse effect on truck and freight movement;

Findings: PBOT reviewed the proposal and submitted the following response to criterion A.2 (Exhibit E-2):

> *The proposed use is located within the Central Eastside Industrial Sanctuary. The applicant's TIS* [Exhibit A-10] *provided an analysis of existing, projected no-build, and post-development multi-modal transportation patterns. Conclusions indicate that since all of the development is located west of SE Water Ave, with the abutting east-west streets of SE Salmon and SE Main terminate into the Eastbank Esplanade, the proposed development will not conflict with existing truck and freight movement throughout the district. This criterion is met.*

Based on this finding from PBOT, staff finds criterion A.2 is met.

3. Transportation system:

   a. The transportation system is capable of supporting the proposed use in addition to the existing uses in the area. Evaluation factors include safety, street capacity, level of service, connectivity, transit availability, availability of pedestrian and bicycle networks, access restrictions, neighborhood impacts, impacts on pedestrian, bicycle, and transit circulation. Evaluation factors may be balanced; a finding of failure in one or more factors may be acceptable if the failure is not a result of the proposed development, and any additional impacts on the system from the proposed development are mitigated;

   b. Measures proportional to the impacts of the proposed use are proposed to mitigate on- and off-site transportation impacts. Measures may include transportation improvements to on-site circulation, public street dedication and improvement, private street improvements, intersection improvements, signal or other traffic management improvements, additional transportation and parking demand management actions, street crossing improvements, improvements to the local pedestrian and bicycle networks, and transit improvements.

   c. Transportation improvements adjacent to the development and in the vicinity needed to support the development are available or will be made available when the development is complete or, if the development is phased, will be available as each phase of the development is completed.

Findings: PBOT reviewed the proposal and submitted the following response to criterion A.3 (Exhibit E-2):

> *33.815.215.A.3.a: The applicant's traffic engineer has evaluated each of the evaluation factors to determine that that transportation system is capable of supporting the proposed use in addition to the existing uses in the area. PBOT Traffic Engineers have reviewed the applicant's TIS and approved the methodologies, analyses, assumptions, findings, and conclusions with regard to intersection capacity, Level of Service (LOS), trip generation, multi-modal safety, etc. to confirm that the transportation-related approval criteria have been addressed. This criterion is met.*
>
> *The following is a summary of the applicant's TIS findings:*
>
> - *Safety: For vehicle safety, the applicant's traffic engineer utilized Oregon Department of Transportation's (ODOT) Crash Data System over a five-year period from January 2016 to December 2020. There were 66 crashes recorded at the study intersections over the five-year period (see Table 4), with the most crashes occurring at the SE*

Stark St/SE Grand Ave and SE Stark St/SE MLK Jr Blvd intersections. Seven involved people walking or biking, including one at the SE Water Ave/SE Salmon St intersection. The most common collision types at the study intersections were angle, turning and rear-end crashes, many of which show "no yield" or "disregarded traffic signal" as the cited cause. In addition, the Union Pacific study rail crossings along the segment between SE Stark Street and SE Clay Street also had three reported incidents in the past five years, two in 2020 and one in 2022, two at the SE Salmon Street and one at the SE Clay Street crossings (see Table 5). Each of these incidents included a train striking a pedestrian, with two resulting in a fatality and one resulting in an injury.

When an intersection's crash rate (crashes per million entering vehicles) is greater than the critical crash rate (an intersection's crash history compared to similar intersections, adjusting for volume), it's an indication that a design deficiency may exist and further study is warranted. As shown in Table 6, one of the identified intersections is located at the intersection of SE Water Ave/SE Salmon St – where the proposed use is located. This is a 4-leg intersection with stop control of the side street approaches. Most of the collisions were angle/rear end type (4 of the 6 total collisions). Three of the collisions were caused by drivers failing to yield or passing the stop sign, two were caused by drivers running into a stopped or parked vehicle, and one was caused by a bike passing the stop sign.

PBOT standards are designed to provide safe conditions for all modes, especially pedestrians and cyclists. The applicant will be required to dedicate property along all three frontages and reconstruct the abutting pedestrian corridor to City standards, including safety improvements such as striped crosswalk, additional lighting, and curb extensions, mitigating potential conflicts in the future. PBOT will submit additional comments related to safety into the record prior to the public hearing.

- *Street Capacity/Level of Service (LOS): To determine the pre-build and post-build intersection capacity and LOS, turning movement data was obtained for the study intersections during the weekday and weekend pre-event period (6 p.m. to 8 p.m.) and post-event period (10:00 p.m. to 12:00 a.m.). Daily motor vehicle count data was also collected adjacent to the proposed venue along SE Water Avenue, south of SE Salmon Street and north of SE Main Street. The count data indicates that approximately 4,900 vehicles pass the proposed venue along SE Water Avenue during an average weekday. Of these vehicles, 1,300 travel northbound and 3,600 travel southbound. The highest number of trips along SE Water Avenue occurs from 5:00 – 6:00 p.m., with 488 vehicles passing the proposed venue (157 northbound and 331 southbound). During the pre-event and post-event peak hours, 165 and 35 vehicles pass the proposed venue along SE Water Avenue, respectively. For City study intersections along SE Water Avenue not designated on the Metro Regional Transportation Plan Arterial and Throughway Network, the City of Portland standards require a LOS "D" or better to be maintained for signalized intersections and a LOS "E" or better for intersections with stop control. As shown in Table 7, all study intersections meet the current mobility targets during the weekday and weekend pre-event and post event peak hours. All intersections along SE Water Avenue operate with a LOS B or better, while the signalized intersections at SE Stark Street/SE Grand Avenue and SE Stark Street/SE Martin Luther King Jr Boulevard operate with a LOS C or better, well below the current mobility targets.*

  For Post-build expectations, Table 17 shows the future 2025 intersection operations at study intersections, with the proposed venue. As shown, all study intersections are expected to continue to meet mobility targets despite the added traffic growth from the proposed venue through 2025, despite an expected increase up to 14

percent during the pre-event peak hour and up to 41 percent during the post-event peak hour. All intersections along SE Water Avenue are expected operate with a LOS C or better, while the signalized intersections at SE Stark Street/SE Grand Avenue and SE Stark Street/SE Martin Luther King Jr Boulevard also operate with a LOS C or better. Therefore, the system evaluation found no street capacity or level of service impacts with the proposed venue, as shown in Table 17, 18 and 19.

- *Pedestrian, Cycling, and Transit Availability: The proposed venue is very accessible to pedestrians and bicyclists and is well-served by a network of continuous sidewalks and bike facilities on the surrounding streets between nearby existing private vehicle parking, bike parking, ride hailing or transit stops. The proposed venue is also adjacent to existing bikeways along the Eastbank Esplanade, SE Water Avenue and SE Salmon Street. Current transit service near the proposed venue is primarily accessed via stops located on SE Grand Avenue and SE Martin Luther King Jr Boulevard between SE Salmon Street and SE Taylor Street, on the SE Madison Street and SE Hawthorne Boulevard viaducts (accessed via stairs from SE Water Avenue), on the SE Morrison Street and SE Belmont Street viaducts (accessed via stairs from SE Water Avenue), along SW 1st Avenue in downtown Portland across the Morrison Bridge, and near SE Tilikum Way. Event attendees and employees who utilize transit for travel to and from the venue would primarily utilize SE Water Avenue, SE Salmon Street and the Eastbank Esplanade to access transit services before and after events. Current schedules indicate that the TriMet Routes 6, 14 and 15 and MAX light-rail service near the proposed venue extends beyond the conclusion of a typical event (i.e., expected to be 11:00 p.m. or later for most events).*

- *Connectivity: The subject site located at the intersection of three ROWs meeting the City's Street spacing standards noted in 17.88.040. Therefore, additional connections are not required.*

- *Access Restrictions: Of the three frontages, SE Main Street is the lowest classified street, therefore the appropriate frontage to which provide vehicular access. As discussed further below, the applicant proposes to provide loading from SE Main Street, reviewed through a PBOT Angle Loading Permit.*

- *On-Street Parking Impacts: Parking surveys were conducted between 6:00 p.m. and 11:00 p.m. on a weekday (Thursday, July 27, 2023) and a weekend (Saturday, August 5, 2023) within a 0.25 mile or about a 10-minute walk of the proposed venue, which is generally considered a comfortable walking distance. This roughly includes the blocks bounded by the Willamette River to the west, SE Morrison Street to the north, SE Grand Avenue to the east and SE Clay Street to the south. On-street parking in the surveyed area is either permit parking (i.e., Zone G or Zone N permit) or available via a 2-hour time limit for non-permit holders and enforced on weekdays only from 7 a.m. to 6 p.m. in non-metered spots and 8 a.m. to 6 p.m. in metered spots. As shown in Table 14, about 1,318 parking spots were identified within the surveyed area, including 1,084 on-street parking stalls and 234 parking spots in public off-street lots (see Figure 16 and Figure 17). A maximum estimated parking occupancy for the entire surveyed area of 32 percent was observed during the weekday and 17 percent was observed during the weekend, both occurring in the 5:00 p.m. and 7:00 p.m. survey period.*

  Table 15 shows that a sold-out concert is estimated to generate demand for 915 parking spaces during both a weekday and weekend event, with attendee and employee arrivals occurring between 6:00 p.m. and 9:00 p.m. and most assumed to use parking locations within 0.25 miles of the proposed venue (i.e., 763 of the 915

parking spaces). The total occupied parking spaces with the proposed venue is estimated to be highest between 8:00 p.m. and 9:00 p.m. during both a weekday and weekend event when the attendee and employee parking demand is at its highest (i.e., demand for 763 spaces within 0.25 miles of the proposed venue). The parking occupancy rate during this period is estimated to reach 82 percent during a weekday event (i.e., 1,074 parking spaces) and 71 percent during a weekend event (i.e., 930 parking spaces) for the 1,318 parking spaces within 0.25 miles of the proposed venue. The estimated parking occupancy rates between 6:00 and 8:00 p.m. are under 80 percent for a weekday event and under 70 percent for a weekend event.

Table 16 shows that a weekday special event is estimated to generate demand for 131 parking spaces, with attendee and employee arrivals occurring between 12:00 p.m. and 3:00 p.m. and all are assumed to use parking locations within 0.25 miles of the proposed venue. The total occupied parking spaces with the proposed venue is estimated to be highest between 1:00 p.m. and 2:00 p.m., when 1,135 parking spaces are utilized. This represents an 86 percent occupancy rate for the 1,318 parking spaces within 0.25 miles of the proposed venue. The estimated parking occupancy rates between 12:00 and 1:00 p.m. and are 2:00 and 3:00 p.m. are at or below 84 percent. PBOT regularly evaluates the on-street parking demand and has the ability to adjust controlling factors in accordance with existing practices and policies.

- *Neighborhood Impacts: The applicant's TIS did not overtly address the potential of neighborhood impacts to the immediate vicinity or district as a whole. The purpose of the IG zone is to protect the Industrial Sanctuary area designated by the Comprehensive Plan. The Industrial Sanctuary zones identify areas where industrial uses may locate, while other uses - such as the current proposal - are restricted to prevent potential conflicts and to preserve land for industry. In this instance, the proposed venue is located in the outer portion of Central Eastside subdistrict, and the majority of proposed operations would occur when many industrial and allowed uses are closed, offsetting the impact to the district. PBOT shared concerns with the applicant that due to the proposed loading in SE Main St, the property directly to the south will be directly affected, which could impact the nature of future development of the neighboring property. PBOT recommends that a letter from the property owner (Prosper Portland) be provided acknowledging the proposed development.*

33.815.215.A.3.b: In accordance with 17.88.020, the proposed project will be required to dedicate and reconstruct the abutting frontages to City standards by providing a 12-ft wide pedestrian corridor along SE Salmon and SE Main streets, and a 15-ft wide corridor along SE Water Street. These improvements will be reviewed through a Public Works permit, which is to receive 30 percent concept approval and bond payment prior to issuance of the building permit. Additional frontage improvements such as street lighting, striped pedestrian crossings, curb extensions, signage, and preparation of ROW bike parking will also be evaluated at time of Public Works permit review.

The applicant also prepared a Transportation Demand Management (TDM) plan to reduce the impact of events on the transportation system and provide employees and attendees with information and incentives to use transportation methods other than single occupancy vehicles. The plan provides strategies to increase the walking, biking, transit, and ride hailing services to ensure that people who travel via motor vehicle effectively navigate to their parking, drop-off, or pick-up location with fewer delays than what would occur under an unmanaged setting. PBOT Parking Control and Traffic Engineering will evaluate ride hailing locations as deemed appropriate to serve the use and reserve the right to modify and relocate such service locations as the project comes online.

The applicant also identified several Capital Improvement Projects (CIP) in and around the area that will also help mitigate anticipated impacts and strengthen the City's mode-split goals.

Therefore, PBOT finds that with these measures, the transportation impact of the project will be able to sufficiently mitigate transportation-related impacts immediately surrounding the site and within the district. This criterion is met.

33.815.215.A.3.c: As noted above, all required frontage improvements, payment into the bike fund, and implementation of TDM strategies will be in place by the time the development is complete. This criterion is met.

In conclusion, based on the evidence included in the record, PBOT finds the applicant has demonstrated with required frontage improvements, implementation of proposed TDM measures, and adhering to strict conditions set forth in the required Angle Loading Permit, the proposed project will support access, safety, and function for users of all modes; and that the transportation system will be capable of supporting the proposed venue, in addition to accommodating the existing uses in the area.

PBOT has no objections to the proposed Major Event Entertainment Conditional Use, subject to the following conditions:

1. *The applicant must receive 30 precent Public Works concept approval and bond payment prior to issuance of building permit for required frontage improvements abutting the site.*

2. *The applicant must apply for and obtain an annual Angle Loading Permit for the proposed loading in SE Main Street. The applicant must adhere to all the conditions and stipulations of said permit for the life of the proposed use. If any conditions are found to be in violation, applicant may be fined and/or revocation of said Angle Loading Permit.*

3. *The applicant must implement the TDM measures identified the TDM plan within their control.*

4. *Applicant must assess their bike parking capacity on an annual basis for first 5 years and then every other year after that. That assessment shall include bike counts averages for events throughout the year. Applicant must send their assessment to PBOT Development Review and PBOT Active Transportation and Safety. If demand consistently exceeds provided bike parking, the applicant must work with PBOT on remedies, including but not limited to adding additional bike racks or a contract for offering temporary bike racks during events.*

5. *The applicant shall provide a letter for the record that the property to the south (R673495) acknowledges and accepts the limitations placed upon the site with the proposed loading occurring in SE Main St by the subject property.*

Based on these findings from PBOT, and with the conditions of approval recommended by PBOT, staff finds criterion A.2 is met.

4. Public services for water supply, police and fire protection are capable of serving the proposed use, and proposed sanitary waste disposal and stormwater disposal systems are acceptable to the Bureau of Environmental Services.

Findings: The Water Bureau and the Fire Bureau reviewed the proposal and responded with no objections (Exhibits E-3 and E-4, respectively), indicating that adequate water supply and fire protection would be available. The Police Bureau reviewed the proposal and responded that police would be able to adequately serve the proposed use (Exhibit E-5). The Bureau of Environmental Services reviewed the application and found the proposed sanitary sewer connection and stormwater management plan are acceptable (Exhibit E-1). For these reasons, staff finds criterion A.4 is met.

B. Appearance. The appearance of the facility is consistent with the intent of the zone in which it is to be located and with the character of the surrounding uses and development;

Findings: Zoning Code Section 33.140.030.C states the intent of the General Industrial zones, including the IG1 zone that applies to the subject site:

The General Industrial zones are two of the three zones that implement the Industrial Sanctuary map designation of the Comprehensive Plan. The zones provide areas where most industrial uses may locate, while other uses are restricted to prevent potential conflicts and to preserve land for industry. The development standards for each zone are intended to allow new development which is similar in character to existing development. The intent is to promote viable and attractive industrial areas.

1. *General Industrial 1. IG1 areas generally have smaller lots and a grid block pattern. The area is mostly developed, with sites having high building coverages and buildings which are usually close to the street. IG1 areas tend to be the City's older industrial areas.*

2. *General Industrial 2. IG2 areas generally have larger lots and an irregular or large block pattern. The area is less developed, with sites having medium and low building coverages and buildings which are usually set back from the street.*

The site is at the western edge of an older industrial area, and the I-5 freeway and the Willamette River are just west of the site. The lots to the north and south of the proposed building are undeveloped, and no development is currently proposed for these lots. Properties east of the site, on the opposite side of SE Water Street, are developed with one- and two-story industrial and commercial buildings. A larger, four-story building (the Eastbank Commerce Center) is one block north of the proposed concert venue.

As intended for the IG1 zone, this area has a grid block pattern and relatively small lots for an industrial area. (The concert venue lot would be about 32,000 square feet after required street dedications.) Since this proposal is to construct a new building on a currently vacant lot, and since that building would be close to all three abutting streets, covering most of the lot area, staff finds the proposal is consistent with the intent of the IG1 zone to have "high building coverages and buildings which are usually close to the street."

The new building would have a four-story scale and a modern design with angled roof lines and minimal ornamentation other than rooftop plantings (Exhibit C-4). The applicant describes the design as like an "upscale warehouse" (Exhibit A-12, page 9), and Exhibit A-3 shows how the exterior design, though modern, reflects existing buildings in the area.

Staff finds the appearance of the proposed building would be both attractive and compatible with the industrial character of the area, consistent with the intent of the General Industrial

zones to "promote viable and attractive industrial areas." Since staff finds the appearance of the facility would be consistent with the intent of the IG1 zone and with the character of surrounding uses and development, staff finds criterion B is met.

C. Benefit. Public benefits of the proposed use outweigh any impacts that cannot be mitigated;

Findings: The applicant has identified several public benefits from the proposal (Exhibit A-12, page 9). The proposal would develop a currently vacant lot, and the concert venue would create a higher level of activity in the evenings to deter crime and support nearby bars and restaurants without interfering with industrial businesses that operate primarily in the daytime. In addition, the applicant would be required to install public improvements such as wider sidewalks and street trees around the development site.

However, neither the applicant nor staff has identified any negative impacts from the proposed Major Event Entertainment use that cannot be mitigated. The venue would largely operate outside the hours of operation of most businesses in the industrial area, and as stated in the findings for criterion A, public services, including the transportation system, are adequate to accommodate the proposed use.

Since there are no negative impacts identified that cannot be mitigated and which public benefits must outweigh, staff finds criterion C is not applicable.

D. In the campus institutional zones. These approval criteria allow Major Event Entertainment facilities to be part of an institutional campus. They also ensure that the impacts of the facility on nearby areas are mitigated and that affected neighbors have an opportunity to comment on the proposals for mitigation. The approval criteria are:

1. The facility is to be established as part of a school or college. Such facilities are prohibited as part of a medical center campus;

2. The facility is limited to events that feature the athletic or performance skills of students, faculty or staff or which supplement the institution's programs;

3. In the IR zone the facility is listed in the mission statement as part of the institution's impact mitigation plan;

4. In the IR zone the mitigation activities completed to implement the impact mitigation plan are adequate to mitigate for the expected impact of the facility. The location chosen and mitigation measures used are consistent with the institution's approved impact mitigation plan; and

5. All approved limited uses and major event entertainment uses in aggregate occupy 30 percent or less of all campus net building area including portions of parking structures associated with these uses. If the institutional campus includes structured parking, 250 square feet of the structured parking will be associated with the major event entertainment facility for each parking space associated with the facility. Size exceptions are prohibited.

Findings: The campus institutional zones are listed in Zoning Code Section 33.150.020. Since this site is not in a campus institutional zone, criterion D does not apply.

Adjustment Review

33.805.040 Approval Criteria
Adjustment requests will be approved if the applicant has demonstrated that approval criteria A through F, below, have been met.

A. Granting the Adjustment will equally or better meet the purpose of the regulation to be modified; and

Findings: The applicant is requesting two Adjustments:

- To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c).

- To reduce the amount of ecoroof area required from 14,617 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 2,100 square feet (Zoning Code Section 33.510.243.B.1).

Consistency with the purpose of each requirement to be modified is discussed below.

Loading
Zoning Code Section 33.266.310.A states the purpose of the on-site loading space requirement:

A minimum number of loading spaces are required to ensure adequate areas for loading for larger uses and developments. These regulations ensure that the appearance of loading areas will be consistent with that of parking areas. The regulations ensure that access to and from loading facilities will not have a negative effect on the traffic safety or other transportation functions of the abutting right-of-way.

The applicant proposes to use the SE Main Street right-of-way adjacent to the site for truck loading when needed, and this Adjustment is necessary because the Zoning Code requires loading areas that are on-site rather than in the right-of-way. However, the proposal would still accommodate two large trucks simultaneously, as required by Zoning Code Section 33.266.310.C.2.c, and the loading area would be as large as would be required by Zoning Code Section 33.266.310.D.1. The street would not have the appearance of a loading area or parking area when not in use for truck loading, and using the public street for loading rather than creating a dedicated loading area on-site reduces visual impacts by reducing the amount of pavement area required for the proposal. PBOT evaluated this proposal and found that using SE Main Street for truck loading in this case would not have a negative effect on traffic safety or other transportation functions in the right-of-way, as long as the applicant obtains and maintains continuous compliance with an Angle Loading Permit (Exhibit E-2). For these reasons, and with the condition of approval recommended by PBOT to require the Angle Loading Permit, staff finds the Adjustment request equally meets the purpose of the standard.

Ecoroof
Zoning Code Section 33.510.243.A states the purpose of the ecoroof requirement:

Ecoroofs provide multiple complementary benefits in urban areas, including stormwater management, reduction of air temperatures, mitigation of urban heat island impacts, air quality improvement, urban green spaces, and habitat for birds, plants and pollinators. The standards are intended to:
- *Maximize the coverage of ecoroofs;*

- *Allow for the placement of structures and other items that need to be located on roofs; and*
- *Support the architectural variability of rooftops in the Central City.*

Without this Adjustment, ecoroofs would be required over all the roof area with slopes not steeper than 25% and not covered by mechanical equipment and elevator and stairwell overruns (Zoning Code Section 33.510.243.B.1). The proposed building design incorporates large, sloping roof forms that are not steep enough to be exempt from this requirement (Exhibit A-8, page 7). While 2,100 square feet of ecoroof is proposed over parts of the roof, the applicant states the long spans of the sloped roof areas are not capable of supporting the weight of additional ecoroof area (Exhibit A-6, page 3).

Although a revised roof design could likely accommodate greater ecoroof coverage than proposed, staff finds the proposed building design illustrated in Exhibit C-4 would be unique in the area, supporting architectural variability as noted in the purpose statement above.

Staff also finds the proposal creates meaningful, complementary benefits that are intended to be provided by ecoroofs in the purpose statement above. Besides the 2,100 square feet of ecoroof area, the applicant proposes an additional 2,150 square feet of planted area on top of roof canopies, including a 1,500-square-foot stormwater planter on the south side of the building (Exhibit A-8, page 7). Stainless steel cables would allow plants to climb toward the roof (Exhibit C-4), and the applicant would also be required to plant new street trees adjacent to the site (Exhibits C-1 and E-8). With these features, the site would be much greener than it is currently and would appear greener than typical for sites in the industrial area. While most of the new greenery would not qualify as ecoroof area under Zoning Code Section 33.510.243.B.2, all the new plants and trees would reduce stormwater runoff, improve air quality, mitigate heat island impacts, and provide habitat for birds and insects. The stormwater management requirements for the site would be fully met (Exhibit E-1), and the landscaping plan for the ecoroofs and the other planters includes several plant varieties known to attract pollinators (Exhibit A-8, pages 14-15). The applicant states the planters would utilize a geocell grid to prevent soil erosion, and that plantings would be denser than typical (Exhibit A-12, page 16). The applicant also submitted an operations and maintenance plan that would promote the long-term success of the planters (Exhibit A-11). Finally, staff notes the un-planted roof areas would be painted white (Exhibit A-12, page 15), which would reflect solar radiation to reduce heat island impacts.

For all these reasons, staff finds the Adjustment request equally meets the purpose of the standard.

Summary
With the condition of approval recommended by PBOT for the Angle Loading Permit, staff finds each Adjustment request equally meets the purpose of the requirement to be modified. With the condition of approval, staff finds criterion A is met.

B. If in a residential, CI1, or IR zone, the proposal will not significantly detract from the livability or appearance of the residential area, or if in an OS, C, E, I, or CI2 zone, the proposal will be consistent with the classifications of the adjacent streets and the desired character of the area; and

Findings: Since the site is in an industrial (I) zone, the Adjustments must be consistent with the classifications of adjacent streets and the desired character of the area.

Street classifications
The Adjustment to the loading requirement would allow SE Main Street, which is classified as a Freight District Street, to be used for truck loading for this development. PBOT is supportive of this request. PBOT noted that truck loading has been traditionally accommodated in the right-of-way in this area, and that with continuous compliance with a PBOT-approved Angle Loading Permit, negative impacts on streets adjacent to the site are not expected (Exhibit E-2).

The Adjustment to the ecoroof requirement affects only the interior of the site and would have no impact on travel demand or the function of adjacent streets.

With the condition of approval recommended by PBOT for the Angle Loading Permit, staff finds the proposal is consistent with the adjacent street classifications.

Desired character of area
"Desired character" is defined in Zoning Code Chapter 33.910. Pursuant to this definition, the desired character for this site is determined by:

- the character statement for the IG1 zone
- the purpose statement for the Central City Plan District
- the Buckman Neighborhood Plan
- the Central City 2035 Plan

IG1 zone
The character statement for the IG1 zone is in Zoning Code Section 33.140.030.C:

> *The General Industrial zones are two of the three zones that implement the Industrial Sanctuary map designation of the Comprehensive Plan. The zones provide areas where most industrial uses may locate, while other uses are restricted to prevent potential conflicts and to preserve land for industry. The development standards for each zone are intended to allow new development which is similar in character to existing development. The intent is to promote viable and attractive industrial areas.*
>
> 1. *General Industrial 1. IG1 areas generally have smaller lots and a grid block pattern. The area is mostly developed, with sites having high building coverages and buildings which are usually close to the street. IG1 areas tend to be the City's older industrial areas.*
>
> 2. *General Industrial 2. IG2 areas generally have larger lots and an irregular or large block pattern. The area is less developed, with sites having medium and low building coverages and buildings which are usually set back from the street.*

The new building would cover most of the lot and would be close to each of the abutting streets, and as discussed in the Conditional Use Review findings, the quality building design would be compatible with nearby development and contribute to a more attractive industrial area. Staff finds the proposal is therefore consistent with the character intended for the IG1 zone, and that neither of the Adjustment requests would detract from this character.

Central City Plan District
The purpose statement for the Central City Plan District is in Zoning Code Section 33.510.010:

> *The Central City plan district implements the Central City 2035 Plan. The regulations address the unique role the Central City plays as the region's premier center for jobs,*

health and human services, tourism, entertainment and urban living. The regulations encourage a high-density urban area with a broad mix of commercial, residential, industrial and institutional uses, and foster transit-supportive development, pedestrian and bicycle-friendly streets, a vibrant public realm and a healthy urban river.

A new concert venue for 3,500 spectators at this location would broaden the use mix in the Central Eastside and reinforce the Central City's role as the premiere location in the region for entertainment and tourism. The location is easily accessible by multiple transit lines, and pedestrians and cyclists can easily access the site from the nearby Eastside Esplanade as well as from the neighborhood street grid. Neither of the Adjustment request would detract from the purpose of the Central City Plan District.

Buckman Neighborhood Plan
Staff finds the following objectives from the Buckman Neighborhood Plan to be relevant:

Objective 1.6. Support planning and design of new developments that enhance neighborhood livability.

Objective 1.7. Promote the development of a clear identity for commercial nodes on Burnside, Belmont/Morrison, Hawthorne and the Central Eastside.

Objective 5.1. Control neighborhood traffic and parking to ensure safety and livability for neighborhood residents.

Objective 5.2. Encourage alternatives to automobile use.

Objective 5.10. Discourage trucks from blocking the streets when loading and unloading, except in the designated truck zone.

Objective 6.16. Encourage visual, literary, and performing arts to thrive in Buckman.

Objective 7.2. Encourage pedestrian-oriented commercial development.

The proposal would create a new destination and amenity in the Buckman Neighborhood, support the performing arts, and contribute to a higher profile for the Central Eastside. Since the concert venue would be several blocks from residential areas, impacts on neighborhood livability would be minimal.

The development would have a pedestrian-oriented design with the building facades close to the street lot lines, improved public sidewalks, and no on-site motor vehicle parking. PBOT found that street parking in the vicinity would be adequate to support the development, and PBOT also recommended a condition of approval to require compliance with a transportation demand management (TDM) plan to limit single-occupancy vehicle trips associated with the proposed use.

The Adjustment to the loading requirement would allow trucks to partially, but not fully, block SE Main Street when loading or unloading, but only within a designated, PBOT-approved truck loading area. PBOT recommended a condition of approval requiring continuous compliance with an Angle Loading Permit to prevent truck loading from significantly impacting the functions of the public right-of-way (Exhibit E-2).

For these reasons, and with the conditions of approval recommended by PBOT, staff finds the proposal is consistent with the Buckman Neighborhood Plan.

Central City 2035 Plan
Staff finds the following statements from the Central City 2035 Plan to be relevant:

Goal 1.A. Portland's Central City is the preeminent regional center for commerce and employment, arts and culture, entertainment, tourism, education and government.

Policy 1.1. Regional image. Strengthen the roles of the Central City and Willamette River in enhancing a positive image for the city, region and state.

Policy 1.4. Tourism, retail and entertainment. Expand upon activities in the Central City that support tourism and complement economic success, vibrancy, and livability, with a special focus on retail, cultural events and institutions, public spaces, arts and entertainment, urban design, and transportation.

Policy 1.CE-1.a. Industrial center. Protect the Central Eastside as a centralized hub of industrial businesses and services that support the regional economy by serving other industrial districts and businesses located throughout the Portland metropolitan area.

Policy 3.16. Loading. Support the delivery of goods in the Central City. Pursue strategies that bring new ways of delivering goods to the Central City in a way that optimizes loading and freight access and makes efficient use of limited urban space.

Policy 5.6. Distinct and vibrant districts. Enhance the existing character and diversity of the Central City and its districts, strengthening existing places and fostering the creation of new urban places and experiences.

Central Eastside 2035 Vision. The Central Eastside is a large, multimodal and vibrant employment district where existing industrial and distribution businesses continue to thrive while the district's job base grows and diversifies to attract new and emerging industries.

The new investment on this site would broaden the use mix in the Central Eastside, reinforce the Central City's role as the region's premiere location for entertainment and tourism, and support a positive image of the city as a vibrant, healthy community.

Since the site is at the edge of the industrial area, and since the concert venue would operate in the evenings, the proposal would not significantly impact neighboring industrial businesses, which operate primarily in the daytime.

The Adjustment to allow truck loading from the SE Main Street right-of-way is supported by PBOT (Exhibit E-2) and would make efficient use of urban space by avoiding the need for a separate truck loading area on-site.

For these reasons, staff finds the proposal is consistent with the Central City 2035 Plan.

Summary
With the conditions of approval recommended by PBOT for the transportation demand management plan and the Angle Loading Permit, staff finds the proposal is consistent with the classifications of adjacent streets and with the desired character of the area. With the condition of approval, staff finds criterion B is met.

C. If more than one Adjustment is being requested, the cumulative effect of the Adjustments results in a project which is still consistent with the overall purpose of the zone; and

Findings: Zoning Code Section 33.140.030.C describes the purpose of the IG1 zone:

The General Industrial zones are two of the three zones that implement the Industrial Sanctuary map designation of the Comprehensive Plan. The zones provide areas where most industrial uses may locate, while other uses are restricted to prevent potential conflicts and to preserve land for industry. The development standards for each zone are intended to allow new development which is similar in character to existing development. The intent is to promote viable and attractive industrial areas.

1. *General Industrial 1. IG1 areas generally have smaller lots and a grid block pattern. The area is mostly developed, with sites having high building coverages and buildings which are usually close to the street. IG1 areas tend to be the City's older industrial areas.*

2. *General Industrial 2. IG2 areas generally have larger lots and an irregular or large block pattern. The area is less developed, with sites having medium and low building coverages and buildings which are usually set back from the street.*

As stated in the findings for criterion B, the new building would cover most of the lot and would be close to each of the abutting streets, and the quality building design would contribute to a more attractive industrial area. Staff finds the proposal is therefore consistent with the purpose statement above. The effects of the two Adjustment requests are to allow a smaller area of the roof to be ecoroof and to allow the SE Main Street right-of-way to be used for truck loading when needed. Whether considered individually or cumulatively, these effects do not detract from the proposal's consistency with the purpose of the IG1 industrial zone. Staff finds criterion C is met.

D. City-designated scenic resources and historic resources are preserved; and

Findings: City-designated scenic resources are identified on zoning maps with an "s," and historic resources are identified either with a dot or as being within the boundaries of a Historic or Conservation district. As there are no scenic resources or historic resources mapped on the subject site (Exhibit B), this criterion is not applicable.

E. Any impacts resulting from the Adjustment are mitigated to the extent practical; and

Findings: The Adjustment to waive the requirement for an on-site truck loading area would be mitigated by the truck loading area within the SE Main Street right-of-way. Though loading areas within the right-of-way do not count toward the Zoning Code requirement, the proposed loading area would be adjacent to the building's loading and staging room (Exhibit A-8, page 2) and would meet the dimensional requirements that would apply to an on-site loading area (Zoning Code Sections 33.266.310.C.2.c and 33.266.310.D.1).

The Adjustment to the ecoroof requirement would be mitigated by above-ground planters that would not count as ecoroofs but would create similar benefits. This Adjustment is also mitigated by the applicant's plan to paint un-planted roof areas white to reduce heat island impacts.

Staff finds the impacts of both Adjustment requests are mitigated to the extent practical and that criterion E is therefore met.

F. If in an environmental zone, the proposal has as few significant detrimental environmental impacts on the resource and resource values as is practicable;

Findings: Environmental overlay zones are designated on zoning maps with either a "p" (Environmental Protection overlay zone) or a "c" (Environmental Conservation overlay zone). As there are no environmental overlay zones mapped on the subject site (Exhibit B), this criterion is not applicable.

DEVELOPMENT STANDARDS

Unless specifically required in the approval criteria listed above, this proposal does not have to meet the development standards in order to be approved during this review process. The plans submitted for a building or zoning permit must demonstrate that all development standards of Title 33 can be met or have received an Adjustment or Modification via a land use review prior to the approval of a building or zoning permit.

CONCLUSIONS

Staff finds the proposal for a new concert venue on this site would not negatively impact the industrial area, and that adequate public services are available to support the proposal.

The proposed Adjustments to the loading and ecoroof requirements are consistent with the purpose of the standards to be modified, with the character of the area, and with the purpose of the IG1 zone. Impacts from the Adjustments would be mitigated to the extent practical.

With the recommended conditions of approval listed below, staff finds that each of the applicable Conditional Use Review and Adjustment Review approval criteria are met. With these conditions, staff recommends approval of the proposal.

TENTATIVE STAFF RECOMMENDATION

(May be revised upon receipt of new information at any time prior to the Hearings Officer decision)

Approval of Conditional Use Review to establish a Major Event Entertainment use on this site; and

Approval of two Adjustments:

- To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c).

- To reduce the amount of ecoroof area required from 14,617 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 2,100 square feet (Zoning Code Section 33.510.243.B.1).

The approvals are per the approved plans, Exhibit C-1 through C-4, and subject to the following conditions of approval:

A. As part of the building permit application submittal, each of the required site plans and any additional drawings must reflect the information and design approved by this land use review as indicated in Exhibits C-1 through C-4. The sheets on which this information appears must be labeled, "Proposal and design as approved in Case File # LU 23-111784 CU AD."

B. Prior to issuance of a building permit for this development, the applicant must receive 30 precent public works concept approval and make any required bond payment for required frontage improvements abutting the site.

C. Prior to issuance of a building permit for this development, the applicant must obtain approval of an annual Angle Loading Permit for the proposed truck loading in SE Main Street. The applicant must adhere to all the conditions and stipulations of said permit for the life of the proposed use. If any conditions are found to be in violation, the applicant may be fined and/or said Angle Loading Permit may be revoked.

D. Prior to issuance of a building permit for this development, the applicant must provide a letter for the record that Prosper Portland, the owner of the property to the south (R673495), acknowledges and accepts the limitations placed upon the site with the proposed truck loading occurring in SE Main Street adjacent to the subject property.

E. The applicant must continually implement the transportation demand management (TDM) measures identified in the TDM plan in Exhibit A-10 that are within their control.

F. The applicant must assess the bike parking capacity on an annual basis for the first 5 years after the concert venue begins operation and then every other year after that. That assessment must include bike count averages for events throughout the year. The applicant must send their assessment to PBOT Development Review and PBOT Active Transportation and Safety. If demand consistently exceeds the provided bike parking, the applicant must work with PBOT on remedies, including but not limited to adding additional bike racks or a contract for offering temporary bike racks during events.

PROCEDURAL INFORMATION

The application for this land use review was submitted on December 22, 2023, and was determined to be complete on May 23, 2024.

Zoning Code Section 33.700.080 states that land use review applications are reviewed under the regulations in effect at the time the application was submitted, provided that the application is complete at the time of submittal, or complete within 180 days. Therefore, this application was reviewed against the Zoning Code in effect on December 22, 2023.

ORS 227.178 states the City must issue a final decision on land use review applications within 120 days of the application being deemed complete. The 120-day review period may be extended at the request of the applicant. In this case, the applicant has not extended the 120-day review period. Unless extended by the applicant, the 120 days will expire on **September 20, 2024.**

Some of the information contained in this report was provided by the applicant**.** As required by Zoning Code Section 33.800.060, the burden of proof is on the applicant to show that the approval criteria are met. The Bureau of Development Services has independently reviewed the information submitted by the applicant and has included this information only where the Bureau of Development Services has determined the information satisfactorily demonstrates compliance with the applicable approval criteria. This report is the recommendation of the Bureau of Development Services with input from other City and public agencies.

Conditions of Approval. If approved, this project may be subject to specific conditions of approval, listed above. Compliance with the applicable conditions of approval must be documented in all related permit applications. Plans and drawings submitted during the permitting process must illustrate how applicable conditions of approval are met. Any project elements that are specifically required by conditions of approval must be shown on the plans and labeled as such.

These conditions of approval run with the land, unless modified by future land use reviews. As used in the conditions, the term “applicant” includes the applicant for this land use review, any person undertaking development pursuant to this land use review, the proprietor of the use or

development approved by this land use review, and the current owner and future owners of the property subject to this land use review.

This report is not a decision. The review body for this proposal is the Hearings Officer who will make the decision on this case. This report is a recommendation to the Hearings Officer by the Bureau of Development Services. The Hearings Officer may adopt, modify, or reject this recommendation. The Hearings Officer will make a decision about this proposal within 17 days of the close of the record. To comment, you may testify at the hearing, submit comments at www.portland.gov/omf/hearings/land-use; email your comments to HearingsOfficeClerks@portlandoregon.gov; write to the Land Use Hearings Officer, 1900 SW Fourth Ave., Suite 3100, Portland, OR 97201; or FAX your comments to 503-823-4347.

You will receive mailed notice of the decision if you write a letter received before the hearing or testify at the hearing, or if you are the property owner or applicant. This staff report will be posted on the Bureau of Development Services website at https://www.portland.gov/bds/zoning-land-use/public-notices. Enter the land use case file number in the keyword search.

Appeal of the decision. The decision of the Hearings Officer may be appealed to City Council, who will hold a public hearing. In the event of an appeal of the Hearings Officer's decision, only evidence previously presented to the Hearings Officer will be considered by the City Council.

You may appeal the decision only if you submit written comments which are received before the close of the record, if you testify at the hearing, or if you are the property owner or applicant. Appeals must be filed within 14 days of the decision. **An appeal fee of $6,079 will be charged.**

Neighborhood associations recognized by the Office of Community & Civic Life may qualify for a waiver of the appeal fee provided that the association has standing to appeal. The appeal must contain the signature of the chairperson or other person authorized by the association, confirming the vote to appeal was done in accordance with the organization's bylaws. Neighborhood associations who wish to qualify for a fee waiver must complete the Type III Appeal Fee Waiver Request for Organizations Form and submit it prior to the appeal deadline. The Type III Appeal Fee Waiver Request for Organizations Form contains instructions on how to apply for a fee waiver, including the required vote to appeal.

Assistance in filing the appeal and information on fee waivers are available from the Bureau of Development Services website: https://www.portland.gov/bds/zoning-land-use/land-use-review-fees-and-types/appeals-fees-and-fee-waivers.

Recording the final decision. If this land use review is approved the final decision will be recorded with the County Recorder. *Unless appealed,* the final decision will be recorded by the Bureau of Development Services.

Expiration of this approval. Generally, land use approvals (except Comprehensive Plan and Zoning Map Amendments) expire five years from the date of the final decision unless a permit has been issued for the approved development. See Zoning Code Section 33.730.130 for specific expiration rules.

Applying for permits. A building permit, occupancy permit, or development permit may be required before carrying out an approved project. At the time they apply for a permit, permittees must demonstrate compliance with:

- All conditions imposed herein;
- All applicable development standards, unless specifically exempted as part of this land use review;
- All requirements of the building code; and

- All provisions of the Municipal Code of the City of Portland, and all other applicable ordinances, provisions and regulations of the City.

Planner's Name: Andrew Gulizia
Date: June 27, 2024

EXHIBITS (not attached unless indicated)

A. Applicant's Statement:

Original submittal
1. Original narrative
2. Original plan set
3. Context images
4. Original stormwater report
5. Original transportation study

May 23, 2024 submittal
6. Letter in response to incompleteness determination letter
7. Revised narrative
8. Revised plan set
9. Revised stormwater report
10. Revised transportation study

June 24, 2024 submittal
11. Operations and maintenance plan for stormwater planters and ecoroofs

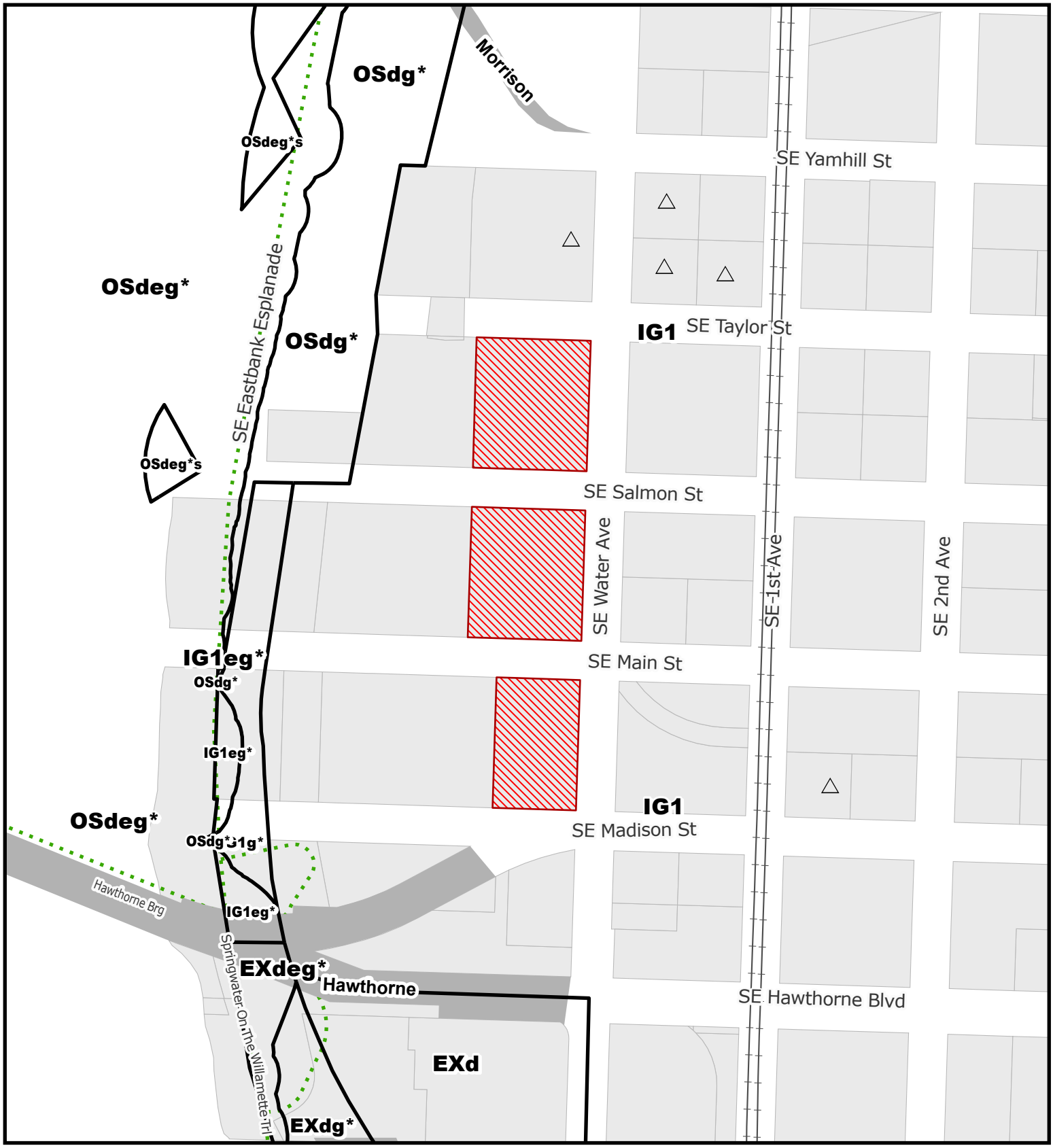
June 26, 2024 submittal
12. Final revised narrative

B. Zoning Map (attached)
C. Plans & Drawings:
   1. Site plan (attached)
   2. East and south building elevations (attached)
   3. West and north building elevations (attached)
   4. Photo simulation (attached)
D. Notification information:
   1. Request for Response
   2. Sign posting instructions
   3. Applicant's statement certifying posting
   4. Notice of Public Hearing, mailed June 20, 2024
   5 Mailing list for Notice of Public Hearing
E. Agency Responses:
   1. Bureau of Environmental Services
   2. Portland Bureau of Transportation
   3. Water Bureau
   4. Fire Bureau
   5. Police Bureau
   6. Site Development Review Section of BDS
   7. Life Safety Review Section of BDS
   8. Parks and Recreation - Urban Forestry Division
F. Correspondence (none received)
G. Other:

1. Land use review application
2. Incompleteness determination letter, dated January 12, 2024
3. Applicant email withdrawing bike parking Adjustment request, received June 25, 2024

H. Hearing Exhibits:

The Bureau of Development Services is committed to providing equal access to information and hearings. To request an accommodation or alternative format of communication, please contact us at least five business days prior to the hearing at 503-823-7300 (TTY 503-823-6868).



For Zoning Code in Effect Post October 1, 2022

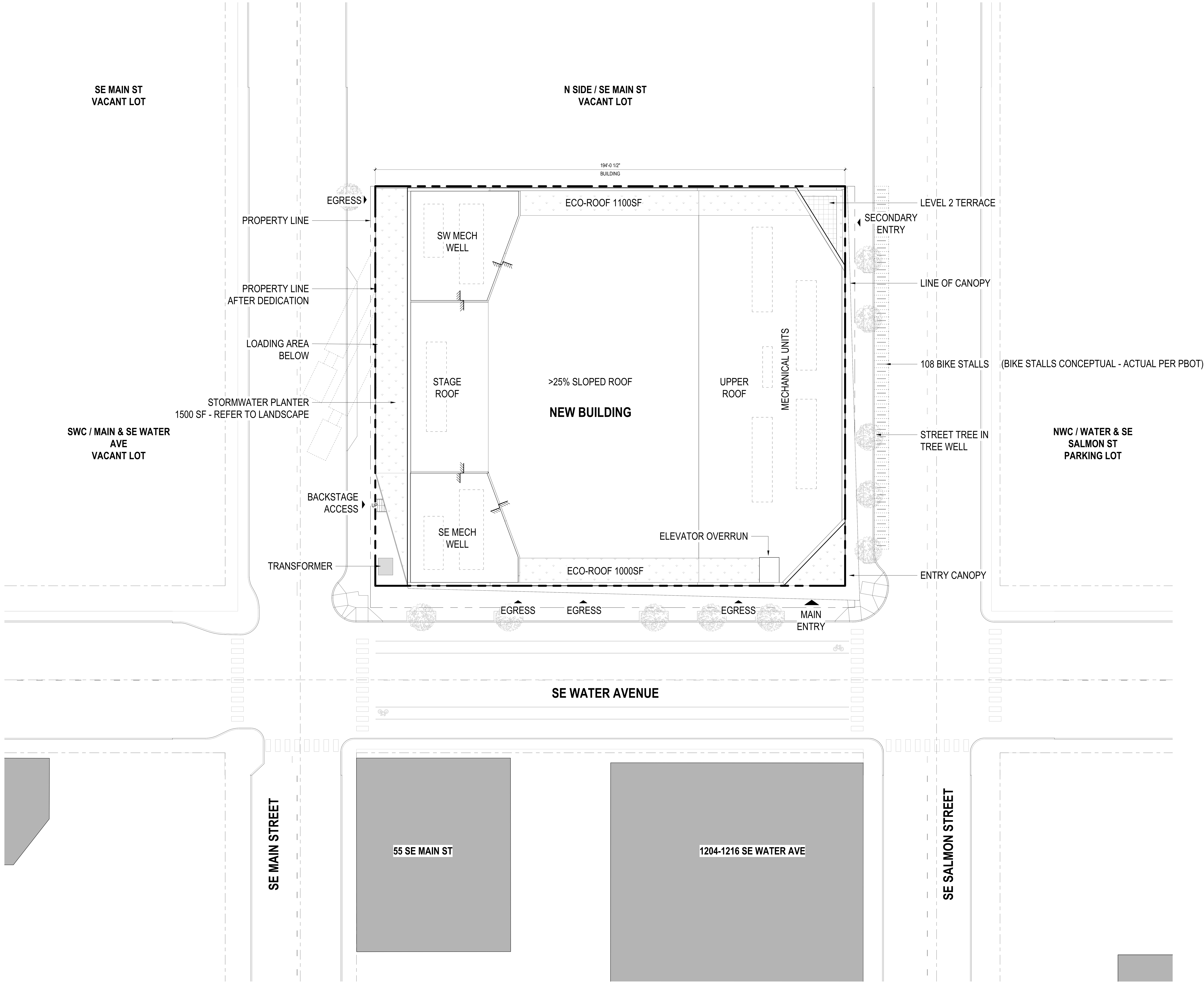
ZONING

THIS SITE LIES WITHIN THE:
CENTRAL CITY PLAN DISTRICT
CENTRAL EASTSIDE SUBDISTRICT

Site
Historic Landmark
Recreational Trails

File No. LU 23 - 111784 CU AD
1/4 Section 3130
Scale 1 inch =200 feet
State ID 1S1E03AD 3602
Exhibit B Jan 16, 2024

Portland Hearings Office
Case #LU 23-111784 CU AD
Bureau Case #LU 23-111784 CU AD
Exhibit #5
Page 23 of 27



1 Z090 ZONING - SITE PLAN
SCALE: 1/16" = 1'-0"

65-75 SE MAIN ST

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SITE DATA TABLE

SITE AREA:
34,860 SF

SITE AREA AFTER DEDICATION:
32,040 SF

BUILDING COVERAGE:
31,600 SF

TOTAL BUILDING AREA:
98,500 SF

VENUE CAPACITY:
APPROX 3,800 OCCUPANTS

BIKE PARKING TOTALS

(TABLE 266-6 MAJOR EVENT ENTERTAINMENT)

LONG TERM BIKE PARKING:
REQUIRED: 10 PROVIDED:10

SHORT TERM BIKE PARKING:
3800 OCCS / 40
REQUIRED: 95 PROVIDED: 108

CENTRAL EASTSIDE VENUE

NWC/MAIN & SE WATER AVE
PORTLAND, OR 97214

ARCHITECT

LEVER

4713 N. Albina Avenue,
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DATE
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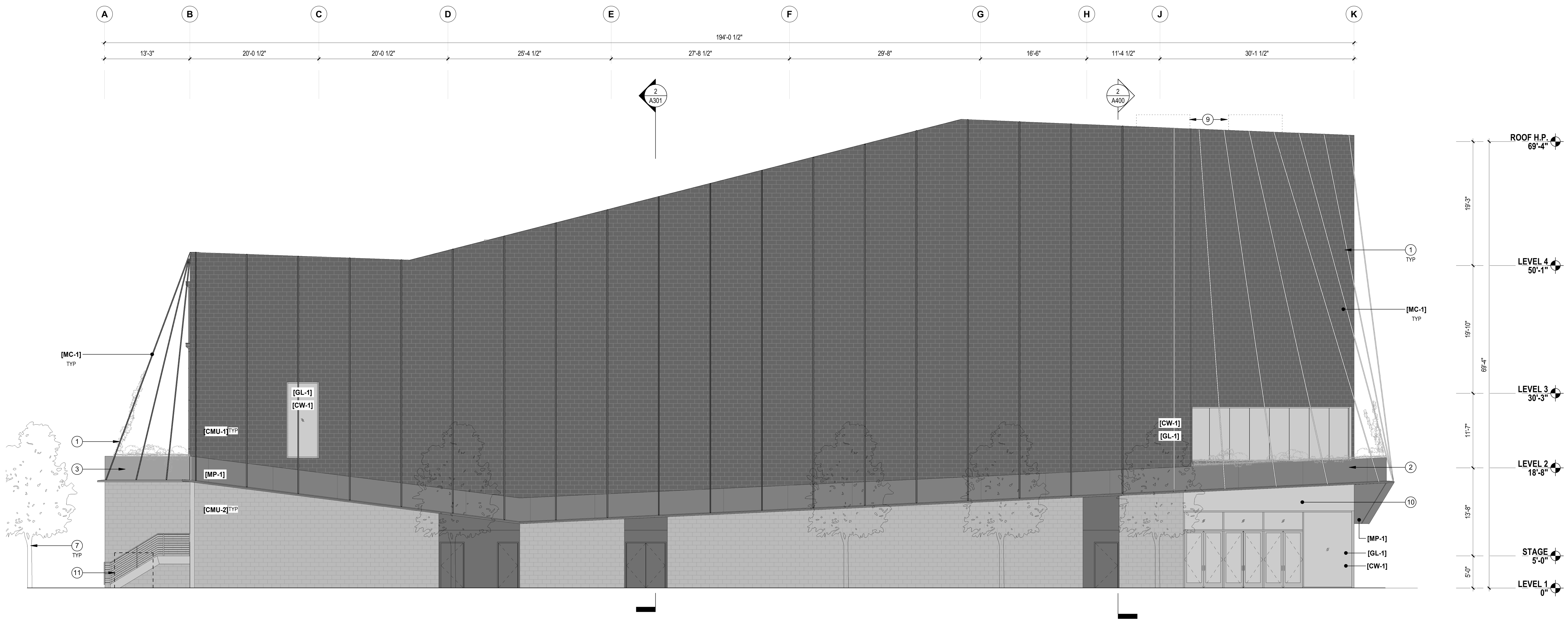
PROJECT NUMBER
271

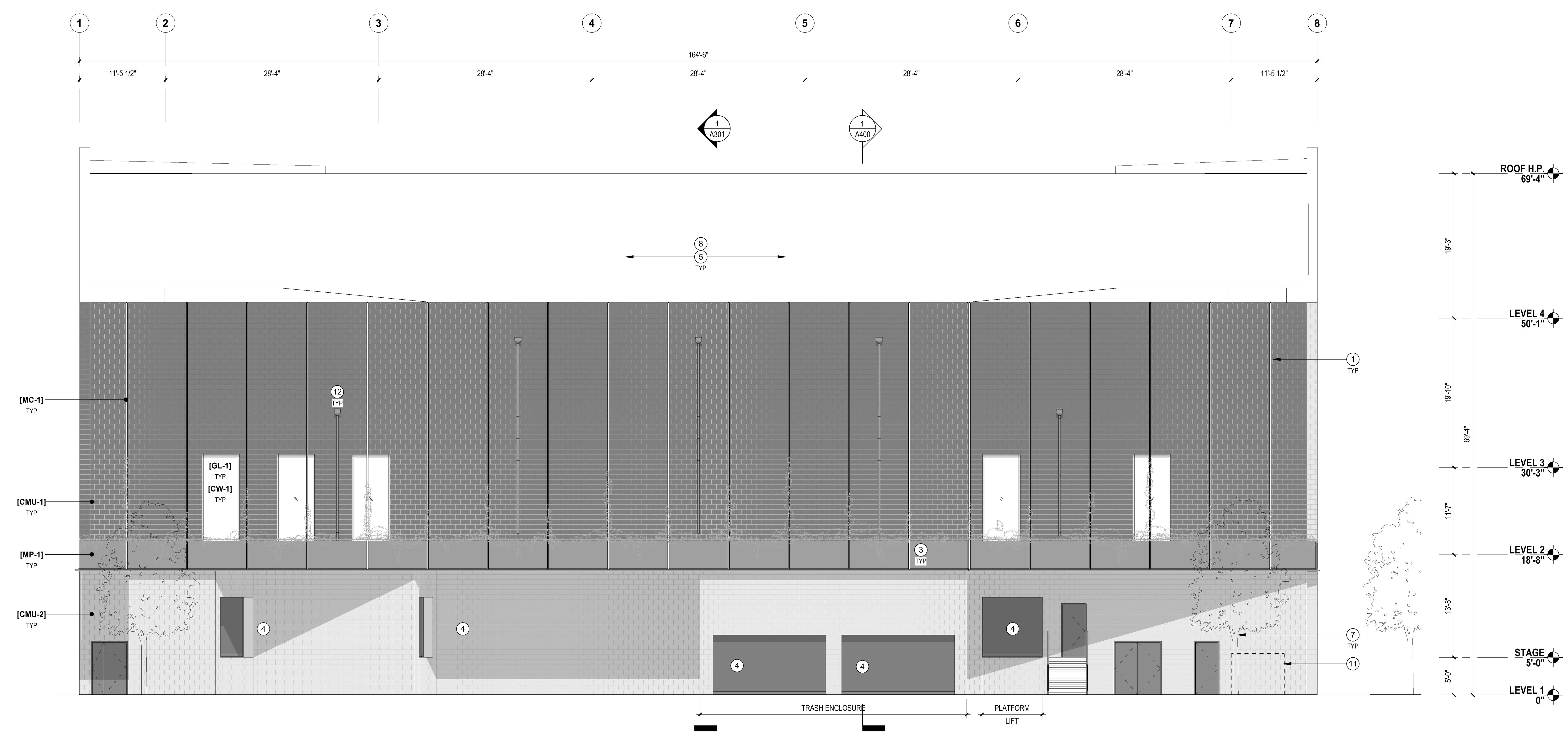
SCALE
As indicated

SHEET TITLE
ZONING - SITE PLAN

Z090



1 Z201 ZONING - EAST BUILDING ELEVATION
SCALE: 1/8" = 1'-0"



2 Z201 ZONING - SOUTH BUILDING ELEVATION
SCALE: 1/8" = 1'-0"

ELEVATION KEYNOTES

1 NON-STRUCTURAL STEEL CLIMBING VINE TRELLIS.
2 CLIMBING VINE PLANTER/ CANOPY. REFER TO WALL SECTION FOR DETAILS.
3 STORMWATER PLANTER.
4 OVERHEAD ROLL-UP DOOR.
5 >25% SLOPED ROOF BEYOND.
6 EXISTING CURB EXTENSION
7 STREET TREE IN TREE WELL.
8 ROOFING MEMBRANE COMPLIANT WITH COOL ROOF REQUIREMENTS.
9 MECHANICAL UNIT BEYOND
10 LED DISPLAY
11 TRANSFORMER
12 SCUPPER & DOWNSPOUT

FINISH + MAT'L LEGEND

[CONC-1]	CAST-IN-PLACE CONCRETE
[CMU-1]	CONCRETE MANSONRY UNIT BOD: MUTUAL MAT'LS GROUND FACE 8-8-16 STANDARD IN SABLE
[CMU-2]	CONCRETE MANSONRY UNIT - FLUTED FACE WITH CLEAR FINISH BOD: MUTUAL MAT'LS 8-8-16 7-SCORE BOND BEAM SPLIT FACE
[CW-1]	ALUMINUM CURTAIN WALL
[CP-1]	PRECAST CONCRETE PAVER
[DP-1]	BITUMINOUS DAMPPROOFING
[GL-1]	1" INSULATED GLAZING UNIT
[GR-1]	EXTERIOR 42" GUARDRAIL BOD: STEEL PIPE + CARL STAHL X-TEND CABLE MESH
[GR-2]	BALCONY 42" GUARDRAIL BOD: REFER TO OWNER STANDARD
[HR-1]	HANDRAIL
[INSUL-1]	BATT INSULATION
[INSUL-2]	MINERAL WOOL INSULATION
[INSUL-3]	POLYISOCYANURATE INSULATION
[INSUL-4]	EXPANDED POLYSTYRENE INSULATION
[INSUL-5]	EXTRUDED POLYSTYRENE INSULATION
[INSUL-6]	CLOSED CELL SPRAY FOAM INSULATION
[MC-1]	STEEL TRELLIS SYSTEM BOD: CARL STAHL GREEN CABLE HEAVY
[MP-1]	COMPOSITE METAL PANEL
[MF-1]	SHEET METAL FLASHING
[MR-1]	MIRROR
[P-1]	PAINT - COLOR 1
[RF-1]	60 MIL SINGLE-PLY PVC ROOF
[RF-2]	2-PLY SBS ROOF ASSEMBLY
[SAM-1]	ASPHALTIC FLASHING MEMBRANE
[SAM-2]	BUTYL FLASHING MEMBRANE
[SAM-3]	HIGH-TEMP FLASHING MEMBRANE
[WOM-1]	RECESSED WALK-OFF MAT
[WP-1]	BELOW GRADE WATERPROOFING - BENTONITE
[WP-2]	BELOW GRADE WATERPROOFING - SHEET MEMBRANE
[WR-1]	WATER-REPELLANT COATING
[WR-2]	WATER-REPELLANT + GRAFFITI COATING
[VPR-1]	INTERIOR VAPOR RETARDER
[VPR-2]	ROOF VAPOR RETARDER
[VPR-3]	UNDER-SLAB VAPOR RETARDER

STEEL TRELLIS TOTALS

QTY:65
VARIED LENGTHS
LONGEST: 60' - 0" SHORTEST: 36' - 6"

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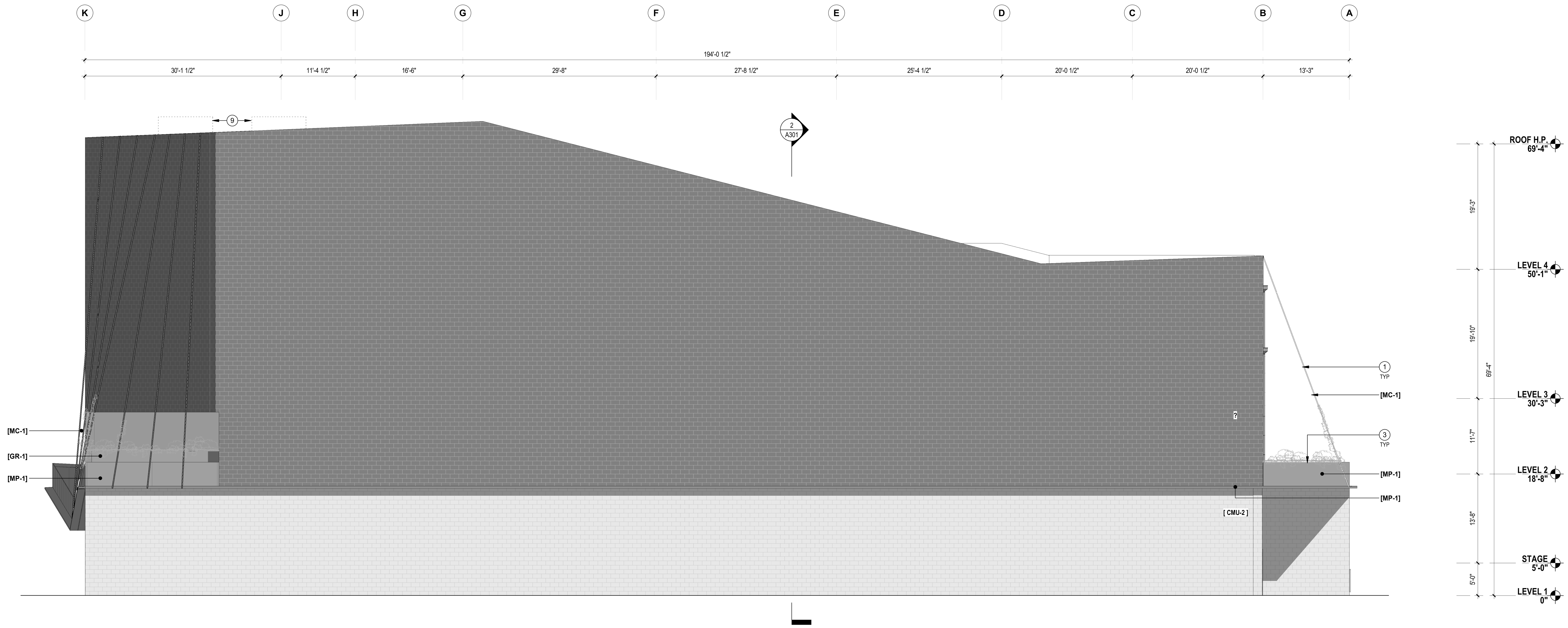
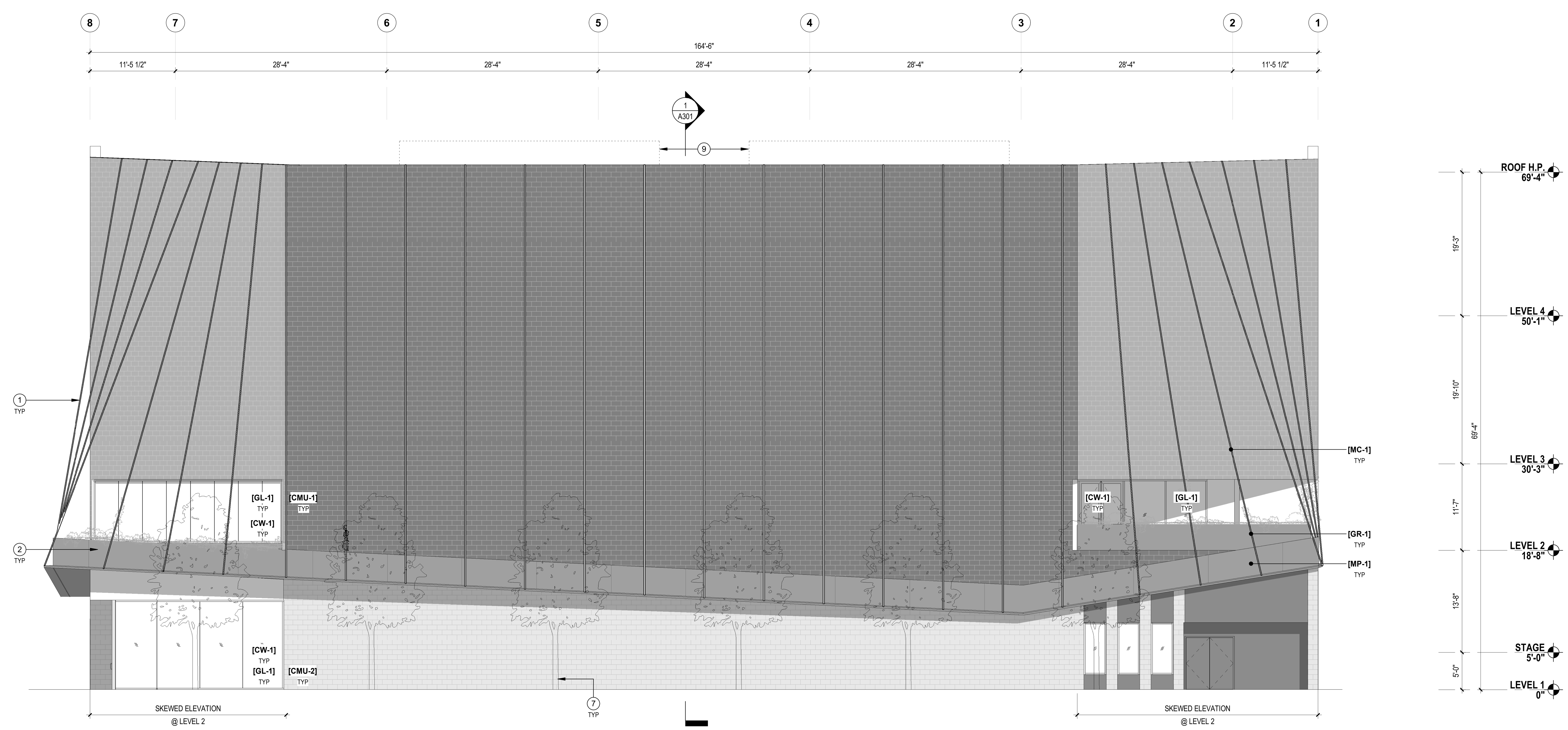
EXTERIOR BUILDING ELEVATIONS - SOUTH & EAST

Z201



2
Z202
ZONING - WEST BUILDING ELEVATION
SCALE: 1/8" = 1'-0"



1
Z202
ZONING - NORTH BUILDING ELEVATION
SCALE: 1/8" = 1'-0"

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EXTERIOR BUILDING ELEVATIONS - NORTH & WEST

Z202


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tonight: incididunt ut labore et dolor

Mailing List for LU 23-111784 CU AD (HO #4240010)

Michael Reis
Works Progress Architecture, 811 SE Stark Street, S210
Portland, Oregon, 97214

Nick Wood
1028 SE Avenue #130
Portland, Oregon, 97214

Patrick Fleming
1028 SE Water Avenue
Portland, Oregon, 97214

Amanda Lowthian
100 SW Main Street, Suite 1100
Portland, Oregon, 97204

Portland Metro Chamber
121 SW Salmon St. Suite 1440
Portland, Oregon, 97204

OMSI Letter of Support for the Central Eastside Venue Project
1945 SE Water Avenue
Portland, Oregon, 97214-3356 |

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MACKENZIE.

CONDITIONAL USE AND ADJUSTMENT

To
City of Portland

For
Central Eastside Venue

Dated
December 19, 2023

Project Number
2220204.00

MACKENZIE
Since 1960

RiverEast Center | 1515 SE Water Avenue, Suite 100, Portland, OR 97214
PO Box 14310, Portland, OR 97293 | T 503.224.9560 | www.mcknze.com

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I. PROJECT SUMMARY

Applicant:	Jonathan Malsin Beam Development 1001 SE Water Avenue, Suite 400 Portland, OR 97214
Owner:	PDC DBA Prosper Portland 222 NW 5th Avenue Portland, OR 97209
Site Address:	Between Main Street and Salmon Street on SE Water Avenue Portland, OR 97214
Assessor Site Acreage:	0.80 AC (34,862 SF) (before dedications), 0.74 AC (32,040 SF) after dedications
Zoning:	General Industrial (IG1)
Comprehensive Plan:	Industrial Sanctuary
Plan District:	Central City Subdistrict: Central Eastside
Existing Structures:	N/A
Request:	- Conditional Use for Major Event Entertainment Use - Adjustments to standards: - 33.266.200.B.1. (number of short-term bike parking spaces provided permanently on the site) - 33.266.310.C.2.c. (number of Standard A loading spaces located entirely on the site) - 33.510.243.B.1. (ecoroof coverage)
Project Contact:	Suzannah Stanley Mackenzie 1515 SE Water Avenue, Suite 100 Portland, OR 97214

II. INTRODUCTION

Description of Request

The applicant is seeking Conditional Use approval for a proposed event venue on a vacant lot in a General Industrial 1 (IG1) zone. Three Adjustments are also requested to allow alternative approaches for short-term bicycle parking, loading area, and ecoroof requirements; event/demand-based short-term bicycle parking and loading will be provided partially in the SE Main Street right-of-way, and the structural design of the roof does not allow for 100% ecoroof coverage.

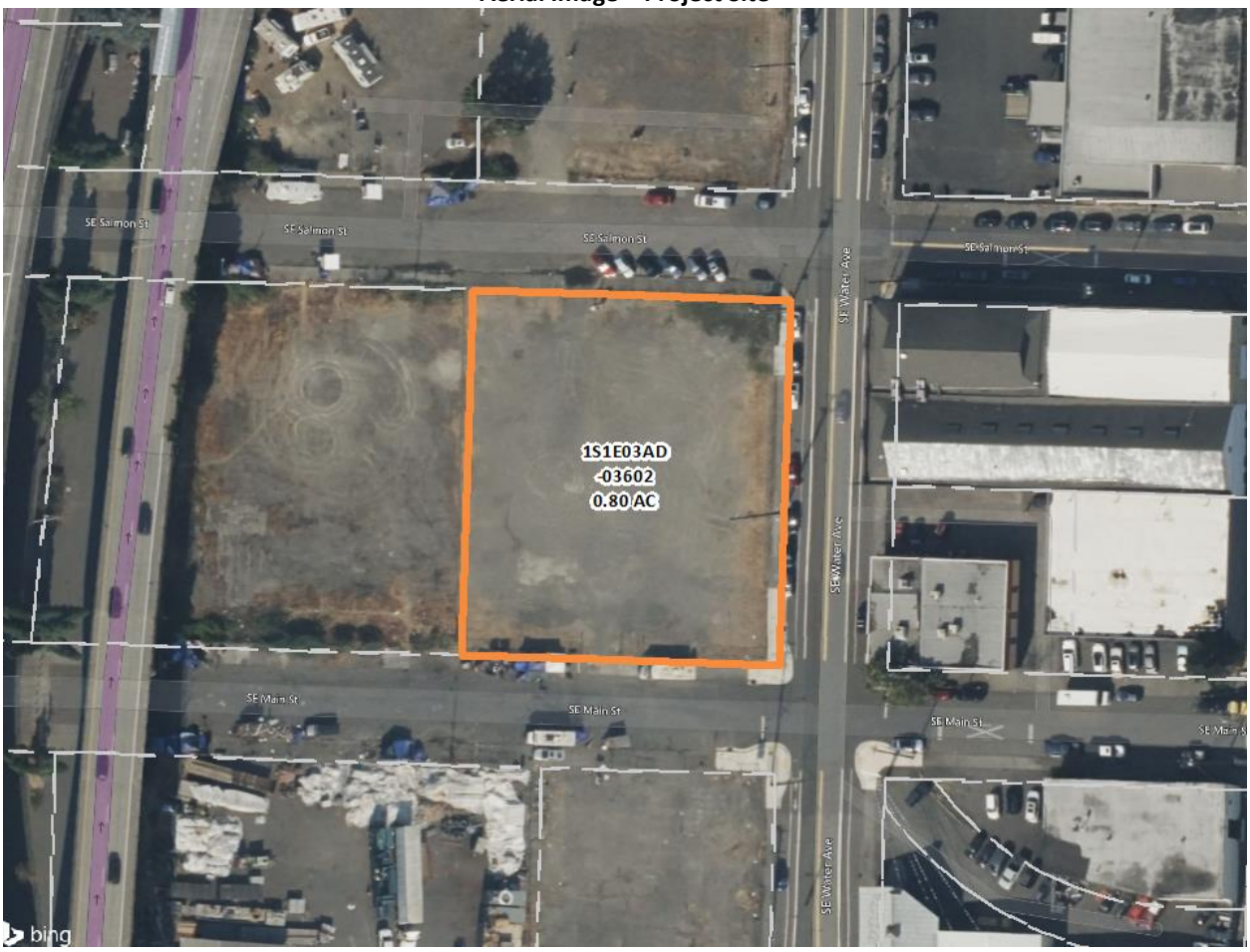
Site and Surrounding Land Uses

The subject site is 0.80 acres (34,862 SF) and is currently vacant. The lot abuts SE Salmon Street to the north, SE Water Avenue to the east, and SE Main Street to the south. To the west is another vacant lot. The area is just east of the Eastbank Esplanade and Interstate-5. The lot is zoned General Industrial (IG1) and is surrounded by other IG1 zoned lots.

Description of Proposed Development

The applicant is proposing a 62,200 SF, 4-story event venue with a 29,100 SF footprint. The building will take up over 80% of the lot. The remaining area will be landscape or hardscape area for pedestrians. The building will have a 2,570 SF ecoroof. The building will have two main entrances, each near the northeast and northwest corners.

Aerial Image – Project Site



III. CONDITIONAL USE COMPLIANCE

33.140 Employment and Industrial Zones

33.140.100 Primary Uses

Table 140-1
Employment and Industrial Zone Primary Uses

Use Categories	EG1	EG2	EX	IG1	IG2	IH
Residential Categories						
Household Living	N	N	Y	CU [1]	CU [1]	CU [1]
Group Living	N	N	Y	CU [1]	CU [1]	CU [1]
Commercial Categories						
Retail Sales And Service	L/CU [2]	L/CU [2]	Y	L/CU [3]	L/CU [4]	L/CU [5]
Office	Y	Y	Y	L/CU [3]	L/CU [4]	L/CU [5]
Quick Vehicle Servicing	Y	Y	N	Y	Y	Y
Vehicle Repair	Y	Y	Y	Y	Y	Y
Commercial Parking	CU [13]	CU [13]	CU [13]	CU [13]	CU [13]	CU [13]
Self-Service Storage	L [7]	L [7]	L [6]	Y	Y	Y
Commercial Outdoor Recreation	Y	Y	Y	CU	CU	CU
Major Event Entertainment	CU	CU	CU	CU	CU	CU
Industrial Categories						
Manufacturing And Production	Y	Y	Y	Y	Y	Y
Warehouse And Freight Movement	Y	Y	Y	Y	Y	Y
Wholesale Sales	Y	Y	Y	Y	Y	Y
Industrial Service	Y	Y	Y	Y	Y	Y
Bulk Fossil Fuel Terminal	L [15]	L [15]	N	L [15]	L [15]	L [15]
Railroad Yards	N	N	N	Y	Y	Y
Waste-Related	N	N	N	L/CU [7]	L/CU [7]	L/CU [7]

Y = Yes, Allowed
L = Allowed, But Special Limitations
CU = Conditional Use Review Required
N = No, Prohibited

Notes:

- The use categories are described in Chapter 33.920.
- Regulations that correspond to the bracketed numbers [ ] are stated in 33.140.100.B.
- Specific uses and developments may also be subject to regulations in the 200s series of chapters.

Response: The proposed use, an event venue, is considered Major Event Entertainment. Conditional Use review is required for this use in the IG1 zone; this application requests that review.

33.815 Conditional Uses

33.815.040 Review Procedures

The procedure for reviewing conditional uses depends on how the proposal affects the use of, or the development on, the site. Subsection A, below, outlines the procedures for proposals that affect the use of the site while Subsection B outlines the procedures for proposals that affect the development or reduce the conditional use site boundary. Proposals may be subject to Subsection A or B or both.

The review procedures of this section apply unless specifically stated otherwise in this Title.

Proposals may also be subject to the provisions of 33.700.040, Reconsideration of Land Use Approvals.

A. Proposals that affect the use of the site.

1. A new conditional use. A request for a new conditional use is processed through a Type III procedure.
Response: This application is for a new Conditional Use, a Type III review.

2. Changing to another use:…
3. Adding another use…
4. Changes to an existing conditional use…
Response: This application is for a new Conditional Use. These standards do not apply.

5. Conditional uses within institutional campuses in the IR zone…
6. Conditional uses in landmarks…
Response: This proposal does not include institutional campuses in the IR zone or landmarks. These standards do not apply.

B. Proposals that alter the development of an existing conditional use. Alterations to the development on a site with an existing conditional use and reducing the boundary of a conditional use site may be allowed, require an adjustment, modification, or require a conditional use review, as follows:…
Response: This proposal is for a new Conditional Use. This provision does not apply.

33.815.215 Major Event Entertainment

These approval criteria ensure that the potentially large size and impacts of these uses are not harmful to surrounding areas and that transportation services are or will be sufficient to serve the use. The approval criteria are:

A. Public services.

1. The proposed use is in conformance with the street designations shown in the Transportation Element of the Comprehensive Plan;
Response: As described in the TIS in Attachment 3, the proposed use is appropriate for the site's traffic street designations (see page 54 of the TIS). Additionally, the design classifications (SE Salmon Street and SE Main Street are Local Streets, and SE Water Avenue is a Neighborhood Main Street) are also suited for the proposed land use. The intended land use of these designations is:

- SE Salmon Street and SE Main Street (Local Streets): Local Streets are multimodal and important for local circulation of trucks in commercial and industrial areas.
- SE Water Avenue (Neighborhood Main Street): These are segments of Neighborhood Corridors located within the Central City and areas of intensive commercial activity. They are intended to serve a mix of uses which are oriented toward the street.

The street frontages of the proposed venue will be improved to feature wider sidewalks corridors on SE Main Street and SE Salmon Street, consistent with their local street designations in a

Pedestrian District and along SE Water Avenue, consistent with its Major City Walkway and Neighborhood Main Street designations.

It is important to note that the Local Streets along the site's north and south frontages (SE Salmon Street and SE Main Street) terminate as dead ends at the west, adjacent to the Eastbank Esplanade and the I-5 corridor. Because there is no through traffic, local circulation on these streets is light.

As described in the TIS, the proposed use will not impede mobility and streets will continue to fully accommodate truck movements as well as all modes. Cyclists are expected to utilize the Eastbank Esplanade, Major City Bikeways along SE Water Avenue and SE Salmon Street, and the City Bikeway along SE Main Street to travel to/from areas surrounding the proposed venue.

2. *If the proposed use will be located in an industrial zone, it will not have a significant adverse effect on truck and freight movement;*

Response: As noted in the TIS, the project is not expected to significantly impact truck movement and will protect the important freight connection between the Central Eastside and nearby regional truck routes along Interstate 5 and OR 99E. Adjacent and nearby streets will continue to fully accommodate truck movements (and all modes of transportation). The loading dock and staging area for the proposed venue will be located away from the SE Water Avenue Priority Truck Street to allow efficient passage for large vehicles. This standard is met.

3. *Transportation system:*

   a. *The transportation system is capable of supporting the proposed use in addition to the existing uses in the area. Evaluation factors include safety, street capacity, level of service, connectivity, transit availability, availability of pedestrian and bicycle networks, on-street parking impacts, access restrictions, neighborhood impacts, impacts on pedestrian, bicycle, and transit circulation. Evaluation factors may be balanced; a finding of failure in one or more factors may be acceptable if the failure is not a result of the proposed development, and any additional impacts on the system from the proposed development are mitigated;…*

   Response: As stated in the TIS and Transportation and Parking Demand Management (TDM) Plan, with the recommended and planned improvements, the transportation system is capable of safely supporting the proposed development in addition to accommodating the existing uses. The site is very accessible to pedestrians and bicyclists and is well-served by a network of continuous sidewalks and bike facilities on the surrounding streets between nearby existing private vehicle parking, bike parking, ride hailing loading zones or transit stops. See the TIS for more discussion on the system in general, and the itemized responses below.

   …safety,…

   Response: The proposed enhancements such as frontage improvements and those described in the TDM (attached to the TIS) will improve safety.

   …street capacity,…

   Response: Tables 17-19 in the TIS provide the post project analysis; no impacts were identified.

   …level of service,…

Response: Table 17 shows all study intersections are expected to continue to meet mobility targets.

…connectivity,…
Response: The pedestrian and bikeway discussions on pages 6, 7, and 28 address connectivity. The project is adjacent to a well-connected system and has connections to transit stops and other destinations. Also, see the TDM plan (attached to the TIS) for discussion on these modes.

…transit availability,…
Response: See the transit travel demand and access discussion in the TDM, which addresses where transit stops are located and what service is running during the events.

…availability of pedestrian and bicycle networks,…
Response: TIS pages 6, 7, and 28, and the TDM plan (attached to the TIS) explain that these are available.

…on-street parking impacts,…
Response: The parking analysis in the TIS explains the supply exceeds demand; also, see the TDM plan (attached to the TIS).

…access restrictions,…
Response: As noted in the TIS on page 34, loading access is not allowed on two streets; this means no driveways for loading are allowed: "Loading is not allowed on the SE Water Avenue and SE Salmon Street frontages of the proposed venue given the Major City Bikeway designation that prohibits it." Loading access is not proposed on these limited streets.

…neighborhood impacts,…
Response: Page 3 of the TIS discusses site conditions and land use. All other components of this response are related to impacts in general.

…impacts on pedestrian, bicycle, and transit circulation.
Response: The proposed "impact" is the amount of trips the site generates, summarized on page 27 of the TIS. The improvements in the TIS and TDM plan address these new trips. There are no expected off-site impacts.

This standard is met.

b. Measures proportional to the impacts of the proposed use are proposed to mitigate on- and off-site transportation impacts. Measures may include transportation improvements to on-site circulation, public street dedication and improvement, private street improvements, intersection improvements, signal or other traffic management improvements, additional transportation and parking demand management actions, street crossing improvements, improvements to the local pedestrian and bicycle networks, and transit improvements.

Response: The proposed on-site "impact" is the amount of trips the site generates, summarized on page 27 of the TIS. Mitigations are summarized in the TIS and TDM plan and below. There are no expected off-site impacts. The development's street frontages will be improved to feature wider sidewalks, to include 12' sidewalk corridors on SE Main Street and SE Salmon Street, consistent with their local street designations in a Pedestrian District,

and a 15' sidewalk corridor along SE Water Avenue, consistent with its Major City Walkway and Neighborhood Main Street designations. A curb extension will be provided at the southwest corner of the SE Water Avenue/SE Salmon Street intersection to provide safe and convenient crossings of SE Water Avenue for pedestrians walking between nearby destinations. See the TIS for more discussion on proposed measures.

A TDM plan (attached to the TIS) was also prepared for the proposed project to reduce the impact of events on the transportation system and provide employees and attendees with information and incentives to use transportation methods other than single occupancy vehicles. The plan provides strategies to increase the transit, walking, and biking travel options, along with traffic and ride hailing management techniques to ensure that people who travel via motor vehicle effectively navigate to their parking, drop-off, or pick-up location with fewer delays than what would occur under an unmanaged setting.

This standard is met.

c. Transportation improvements adjacent to the development and in the vicinity needed to support the development are available or will be made available when the development is complete or, if the development is phased, will be available as each phase of the development is completed.

Response: As discussed in the TIS, the proposed improvements that are needed to support the venue will be made by the completion of the development in 2025. This standard is met. Additional nearby projects identified in previous studies or plans are not related to project trips and will be completed later by the City as funding becomes available.

4. Public services for water supply, police and fire protection are capable of serving the proposed use, and proposed sanitary waste disposal and stormwater disposal systems are acceptable to the Bureau of Environmental Services.

Response: An Early Assistance meeting was held mid 2022 in which the Portland Water Bureau stated that water is available from the 12" CI water main in SE Water Avenue. The Bureau stated that if the service is found to be inadequate, it can be resized at the expense of the Applicant. In the same EA meeting, BES found that sanitary service is available in SE Water Avenue (12") and if upsizing is needed, that can be done at the expense of the Applicant. BES also found that stormwater infrastructure is available in SE Main Street (8") and SE Water Avenue (12"). The project will pay the fee in lieu of public stormwater management, as noted on sheet C100.

PF&R stated in the EA meeting that the Applicant is expected to be able to meet access and water supply requirements. As shown in the utility plan, these services will be used. The Applicant will also pay into the special circumstances fund for off-site stormwater management. Portland Police service is available in the area. Existing public infrastructure is expected to be sufficient, but can be upgraded if necessary as noted by these bureaus, verified through building permit. This standard is met.

B. Appearance. The appearance of the facility is consistent with the intent of the zone in which it is to be located and with the character of the surrounding uses and development;

Response: The intent of the General Industrial Zones is to “promote viable and attractive industrial areas” and the General Industrial 1(IG1) zone is described in the code as generally having “smaller lots and a grid block pattern. The area is mostly developed, with sites having high building coverages and buildings which are usually close to the street.”

From the exterior, the proposed building will have a similar look and feel to a very upscale warehouse, which will allow it to blend into the industrial area and improve the attractiveness of the area in general. See Attachment 5, which shows how the proposed building exterior design was inspired by existing nearby building exteriors. The proposed building will be four stories in height, similar to the height of surrounding buildings. The building will occupy 29,100 SF of the 32,040 SF lot (after dedications), giving the site a high building coverage ratio. The building's perimeter walls will be at the lot line of abutting street frontages to the north and east, and at or within several feet along the south elevation.

Additionally, other similar uses such as venues, bars, and entertainment exist in the nearby area, including the following listed below. The event venue facility will be very consistent with the character of these surrounding uses and their associated development because it will be in the same or complementary use categories. Event attendees could visit the bars and restaurants before or after attending an event at the proposed venue or the existing entertainment or private event spaces.

- Entertainment: Oregon Museum of Science and Industry (OMSI), Portland Night Market, Grand Central Bowl.
- Event Venues: Exchange Ballroom, Union/Pine, The Melody Event Center, The Evergreen, and The Redd.
- Bars/Restaurants: Wayfinder, Produce Row, Labyrinth Forge Brewing, Olympia Provisions, Westward Whiskey, Shalom Ya'll, and multiple food cart pods.

Finally, the general purpose of the employment and industrial zone is to provide for a diversity of industrial and business areas, and to support developments that will bring economic viability to the district. Currently, this and other nearby lots are vacant and the proposed building's economic catalyst as an event venue will likely attract other improvements to the area, such as new supporting businesses and development. The City does not have any other venues of this size and level of investment, and the venue is expected to be a significant draw, bringing people to the district and benefitting the surrounding establishments that complement the venue.

C. Benefit. Public benefits of the proposed use outweigh any impacts that cannot be mitigated;
Response: As described above, the proposed on-site "impact" is the amount of trips the site generates, summarized on page 27 of the TIS. Mitigations are summarized in the TIS and TDM plan and include public frontage improvements and TDM methods. There are no expected off-site impacts and there are no impacts that cannot be mitigated. This standard does not apply.

An event venue on this lot, which is currently vacant and surrounded by commercial and industrial buildings and other vacant lots, will have no other negative public impacts as it will operate largely outside of the hours of operation of the nearby businesses, with the exception of nearby hotels, bars, and restaurants which will likely benefit from the increased after-hours business activity. The proposed development is expected to produce public benefits in large part because its higher level of activity will likely reduce the presence of discarded waste, abandoned cars, crime, and illegal camping, all of which have recently been observed in the vicinity. Additionally, the development will be accompanied by public infrastructure improvements surrounding the block, which will improve the safety and security of the pedestrian environment for people who live and work in the district.

D. In the campus institutional zones…
Response: The site is not in a campus institutional zone. This standard does not apply.

IV. ADJUSTMENT COMPLIANCE

This application requests Adjustments with respect to three Code requirements:

- 33.266.200.B.1. (number of short-term bike parking spaces provided permanently on the site).
- 33.266.310.C.2.c. (number of Standard A loading spaces located entirely on the site).
- 33.510.243.B.1. (ecoroof coverage).

The applicable sections are quoted and addressed below, followed by responses to the Adjustment approval criteria.

33.266 Parking and Loading

33.266.200 Minimum Required Bicycle Parking

A. Purpose. Bicycle parking is required for most use categories to encourage the use of bicycles by providing secure and convenient places to park bicycles. These regulations ensure adequate short and long-term bicycle parking based on the demand generated by different uses. Minimum bicycle parking facilities are based on the City's mode split goals, while acknowledging the usage rates for different uses. These regulations will help meet the City's goal that 25 percent of all trips be made by bicycle, while still acknowledging that to meet the citywide goal the bicycle mode split will vary by geographic area.

B. Number of spaces required.

1. The required minimum number of bicycle parking spaces for each use category is shown in Table 266-6. No bicycle parking is required for uses not listed. Minimum bicycle parking is calculated on a geographic hierarchy based on the current and future bicycle usage. Standard A in Table 266-6 applies to the areas shown as Standard A on Map 266-1. Standard B in Table 266-6 applies to all other areas of the city. (The following table is an excerpt from Table 266-6)…

Table 266-6
Minimum Required Bicycle Parking Spaces [1]

		Long-term Spaces		Short-term Spaces	
Uses	**Specific Uses**	**Standard A**	**Standard B**	**Standard A**	**Standard B**
Commercial Categories					
Major Event Entertainment		10, or 1 per 10,000 sq. ft. of net building area	10, or 1 per 20,000 sq. ft. or net building area	10, or 1 per 40 seats	10, or 1 per 40 seats

Response: The proposed venue is located in the Standard A area. The building will have 62,200 SF of net building area and 1,280 seats. Based on these numbers, 10 long-term bike parking spaces and 32 short-term spaces are required. As shown in the attached plans (see sheet A101), 10 long-term spaces are proposed in the bike enclosure. This standard is met.

As described in the TIS (and TDM plan), the expected demand for short-term bike parking spaces at peak event times is 193 spaces (with 1.5% of these or 58 expected to be e-scooters, so 135 will be standard bicycles); however, as shown in the attached plans, because the building is built to the lot lines in most locations, short-term bike parking meeting the standards of 33.266.210.E cannot be provided on the site.

Instead, the applicant proposes to provide event-based short-term bike parking meeting or exceeding the minimum requirement by providing temporary racks placed in the SE Salmon Street right-of-way west of SE Water Avenue, north of and generally within 50' of the main entrances. The locking facilities, which will be installed prior to events by the facility operator, will be permitted through the PBOT Temporary Street Use permitting process.

33.266.210 Bicycle Parking Development Standards

A. *Purpose. These standards ensure that required bicycle parking is designed so people of all ages and abilities can access the bicycle parking and securely lock their bicycle without undue inconvenience. Bicycle parking is in areas that are reasonably safeguarded from theft and accidental damage. The standards allow for a variety of bicycle types, including but not limited to standard bicycles, tricycles, hand cycles, tandems, electric motor assisted cycles and cargo bicycles. Long-term bicycle parking is in secure, weather protected facilities and is intended for building and site occupants, and others who need bicycle parking for several hours or longer. Short-term bicycle parking is located in publicly accessible, highly visible locations that serve the main entrance of a building. Short-term bicycle parking is visible to pedestrians and bicyclists on the street and is intended for building and site visitors.*

B. Where these standards apply. The standards of Subsection C and D apply to required long-term bicycle parking, and the standards of Subsection C and E apply to required short-term bicycle parking.

C. Standards for all bicycle parking. The Bureau of Transportation maintains a bicycle parking handbook that includes information on rack standards, siting guidelines and other standards of this code chapter. Long-term and short-term bicycle parking must be provided in lockers or racks that meet the following standards:

1. Bicycle parking area standards. The area devoted to bicycle parking must be hard surfaced.

2. Bicycle racks. Where bicycle parking is provided in racks, the racks must meet the following standards:

a. The rack must be designed so that the bicycle frame and one wheel can be locked to a rigid portion of the rack with a U-shaped shackle lock, when both wheels are left on the bicycle;

b. If the rack is a horizontal rack, it must support the bicycle at two points, including the frame; and

c. The rack must be securely anchored with tamper-resistant hardware.

Response: These standards will be met by the proposed long-term bicycle parking, as verified through building permit review, and are not relevant to this Adjustment request for the long-term bicycle parking. No short-term bicycle parking is proposed on the site and thus these standards cannot be applied to any short-term bicycle parking.

D. Standards for Long-Term Bicycle Parking...

Response: These standards will be met by the proposed long-term bicycle parking, as verified through building permit review, and are not relevant to this Adjustment request.

E. Standards for Short-term Bicycle Parking…

Response: The applicant is requesting an Adjustment to the short-term bike parking development standards in Section 33.266.200.B.1. No short-term bicycle parking is proposed on the site, and thus, these standards cannot be applied. Instead of on-site short-term bicycle parking, the facility operator will place temporary short-term bike parking facilities within the adjacent SE Salmon Street right-of-way, and will remove the bike racks following events, subject to obtaining PBOT Temporary Street Use Permits. The

secure temporary rack sets will be at the same grade as the sidewalk and within 50' of a main entrance, consistent with the standards applicable to short-term bike parking racks.

33.266.310 Loading Standards

A. Purpose. A minimum number of loading spaces are required to ensure adequate areas for loading for larger uses and developments. These regulations ensure that the appearance of loading areas will be consistent with that of parking areas. The regulations ensure that access to and from loading facilities will not have a negative effect on the traffic safety or other transportation functions of the abutting right-of-way.

B. Where these regulations apply. The regulations of this section apply to all required and non-required loading areas.

Response: The applicant is proposing an Adjustment for required loading areas.

C. Number of loading spaces.

1. Buildings where all of the floor area is in Household Living uses must meet the standards of this Paragraph…

Response: None of the floor area will be in Household Living uses. This standard does not apply.

2. Buildings where any of the floor area is in uses other than Household Living must meet the standards of this Paragraph.

a. Buildings with any amount of net building area in Household Living and with less than 20,000 square feet of floor area in uses other than Household Living are subject to the standards in C.1. above.

b. One loading space meeting Standard A is required for buildings with at least 20,000 and up to 50,000 square feet of net building area in uses other than Household Living.

c. Two loading spaces meeting Standard A are required for buildings with more than 50,000 square feet of net building area in uses other than Household Living.

Response: The proposed building has more than 50,000 SF of net building area in uses other than Household Living; therefore, two Standard A loading spaces are required. An Adjustment is being requested for the requirement of on-site loading areas. The applicant is proposing, instead, to obtain agreements with PBOT for a Temporary Street Use Permit on SE Main Street, for the width of the site and up to the centerline, to address loading needs. The side streets abutting the proposed development dead-end at the west (at the I-5 corridor) and do not experience much vehicular use because they do not accommodate through traffic. Due to the site location and layout of streets, access, and traffic patterns, temporary closures will not have any negative effect on the traffic safety or other transportation functions of the abutting right-of-way.

D. Size of loading spaces. Required loading spaces must meet the standards of this subsection.

1. Standard A: the loading space must be at least 35 feet long, 10 feet wide, and have a clearance of 13 feet.

2. Standard B: The loading space must be at least 18 feet long, 9 feet wide, and have a clearance of 10 feet.

Response: The proposed Adjustment will involve an agreement with PBOT to use temporary road closures for loading needs. This standard does not apply to the spaces extending into the right-of-way or the portions of those spaces on the site as those are not required following this Adjustment approval; however, as shown in the attached plans, the proposed the loading spaces will be 35' long and 10' wide in compliance with the size requirements, with 63% of the loading area located off the site.

E. Placement, setbacks and landscaping. Loading areas must comply with the setback and perimeter landscaping standards stated in Table 266-8 below. When parking areas are prohibited or not allowed between a building and a street, loading areas are also prohibited or not allowed.

Response: An Adjustment is being requested to reduce the requirement for on-site loading spaces from two to zero because, while the building will have two Standard A loading docks near the southwest building corner, the standing area for the docked trailers and semi-tractors will be located mostly within the SE Main Street right-of-way rather than on the property itself. The operation will require PBOT Temporary Street Use Permits allowing the right-of-way space up to the centerline of the street to be used for loading needs. Under this Adjustment and PBOT temporary permitting, the limited on-site areas used for loading would be categorized as general vehicle area and would not be subject to setback and perimeter landscaping standards for loading facilities.

F. Forward motion.

1. Outside the Central City plan district. Outside the Central City plan district, loading facilities generally must be designed so that vehicles enter and exit the site in a forward motion. Standard B loading spaces that are accessed from a Local Service Traffic Street are exempt from this requirement.

2. In the Central City plan district. In the Central City plan district, loading facilities that abut a light rail or streetcar alignment must be designed so that vehicles enter and exit the site in a forward motion.

Response: The site is in the Central City Plan District. The site does not abut a light rail or streetcar alignment. This standard does not apply.

G. Paving. In order to control dust and mud, all loading areas must be paved.

Response: If the Adjustment is approved, the alternative loading will still occur in a paved area. Paving of all required surfaces, within both the site and the public right-of-way, will comply with this standard.

33.510 Central City Plan District

33.510.243 Ecoroofs

A. Purpose. Ecoroofs provide multiple complementary benefits in urban areas, including stormwater management, reduction of air temperatures, mitigation of urban heat island impacts, air quality improvement, urban green spaces, and habitat for birds, plants and pollinators. The standards are intended to:

- *Maximize the coverage of ecoroofs;*
- *Allow for the placement of structures and other items that need to be located on roofs; and*
- *Support the architectural variability of rooftops in the Central City.*

B. Ecoroof standard. In the CX, EX, RX, and IG1 zones, new buildings with a net building area of 20,000 square feet or more must have an ecoroof that meets the following standards:

1. The ecoroofs, including required firebreaks between ecoroofs areas, must cover 100 percent of the building roof area, except that up to 40 percent of the building roof area can be

covered with a combination of the following. Roof top parking does not count as roof area. Roof area that has a slope greater than 25% does not count as roof area:

a. Mechanical equipment, housing for mechanical equipment, and required access to, or clearance from, mechanical equipment;
b. Areas used for fire evacuation routes;
c. Stairwell and elevator enclosures;
d. Skylights;
e. Solar panels;
f. Wind turbines;
g. Equipment, such as pipes and pre-filtering equipment, used for capturing or directing rainwater to a rainwater harvesting system; or
h. Uncovered common outdoor areas. Common outdoor areas must be accessible through a shared entrance.

Response: As shown in the attached plans (see sheet A105), the roof area (not including areas with slope greater than 25%) is 16,160 SF. Mechanical equipment areas occupy 3,150 SF (19.4 %). As shown, 2,570 SF of the roof area is proposed for ecoroofs due to structural design requirements for ecoroofs that cannot be met for the proposed structure. An Adjustment to standard B.1. is requested.

2. The ecoroof must be approved by the Bureau of Environmental Services as meeting the Stormwater Management Manual's Ecoroof Facility Design Criteria.

Response: As noted in the stormwater report in Attachment 4, the ecoroof will meet BES standards. This can be verified at time of building permit. This standard is met.

33.805 Adjustments

This application includes three Adjustment requests, as noted above. The section below responds to the Adjustment approval criteria for each Adjustment separately.

33.805.040 Approval Criteria

The approval criteria for signs are stated in Title 32. All other adjustment requests will be approved if the review body finds that the applicant has shown that either approval criteria A. through F. or approval criteria G. through I., below, have been met.

A. Granting the adjustment will equally or better meet the purpose of the regulation to be modified; [and]

Adjustment 1 Response: The Purpose of the bicycle parking standards is in Section 33.266.200.A:

> *Bicycle parking is required for most use categories to encourage the use of bicycles by providing secure and convenient places to park bicycles. These regulations ensure adequate short and long-term bicycle parking based on the demand generated by different uses. Minimum bicycle parking facilities are based on the City's mode split goals, while acknowledging the usage rates for different uses. These regulations will help meet the City's goal that 25 percent of all trips be made by bicycle, while still acknowledging that to meet the citywide goal the bicycle mode split will vary by geographic area.*

Based on the size and land use activity of the proposed building, the Code requires 32 short-term bicycle parking spaces. None of these can be provided on the site as the building is built to the lot lines in most

locations and short-term bike parking meeting the standards of 33.266.210.E. cannot be provided. The Applicant has the option to pay into the bike parking fund (per 33.266.210.E.b), but this would not immediately provide any of the short-term bike parking needed to accommodate events for which the proposed facility is designed.

As described in the TIS and TDM plan, the expected demand for short-term bike parking spaces at peak event times is 193 spaces (for a sold-out event, including employees). All of the Code-required short-term bike parking plus the anticipated needed short-term bike parking will be provided during events in temporary racks placed in the SE Salmon Street right-of-way north of and generally within 50' of the main entrances, placed by the operator and allowed via PBOT Temporary Street Use Permits.

The TIS assumes 5% of all trips to the venue will be made by bicycle and the proposed bike parking will support this. The project anticipates demand for bicycle parking and will accommodate this in a strategic way despite the high building coverage design expected for and encouraged by the zone. By using the adjacent right-of-way, the project can provide more than the Code minimum bicycle parking or racks along the sidewalk funded by the bicycle parking fund, thereby encouraging the use of bicycles and meeting the demand associated with events at the facility. This criterion is met.

Adjustment 2 Response: The purpose of the loading space standard is in 33.266.310.A. The response below addresses each component of the purpose statement.

> *A minimum number of loading spaces are required to ensure adequate areas for loading for larger uses and developments…*
> **Response:** The minimum number of loading spaces is two, required to be provided on the site; however, due to the high building coverage design expected for and encouraged by the zone, these cannot be provided entirely on-site. Two Standard A spaces will be provided, meeting the purpose of the standard, in an alternative location partially within the SE Main Street public right-of-way.
>
> *These regulations ensure that the appearance of loading areas will be consistent with that of parking areas…*
> **Response:** Surface parking is prohibited in the Central City Plan District, though street parking exists throughout the District. It would not be as appropriate and consistent with the neighborhood to provide loading areas with standard landscape setbacks in this urban location within the Central Eastside Freight District. The proposed loading spaces will look more like the allowed street parking as they will be part of the public street.
>
> *The regulations ensure that access to and from loading facilities will not have a negative effect on the traffic safety or other transportation functions of the abutting right-of-way…*
> **Response:** As described in the TIS, all three streets near the proposed venue have Freight District or Priority Truck District Street designations since the area is located within the Central Eastside Freight District. These designations require the streets to be designed to fully accommodate truck movements without impeding their mobility. The proposed loading docks will require an Angle Loading Permit from PBOT when in use to support events. Such street closure will not impede traffic safety or transportation functions because the affected street section on SE Main Street dead ends into the Eastbank Esplanade area and experiences minimal traffic circulation. Additionally, SE Main Street is not designated a Major City Bikeway, so cyclists will not be affected by operations at the dock doors.

Safety support for truck maneuvering will be achieved through the likely requirement of a flagger to assist with the maneuver.

The applicant has had conversations with PBOT representatives who have indicated their support for Temporary Street Use Permits or a right-of-way lease as a solution to our loading strategy. PBOT indicated a willingness to provide us with long-term certainty on our ability to use the SE Main Street right-of-way for this loading use.

This criterion is met.

Adjustment 3 Response: The purpose of the ecoroof standard is in 33.510.243.A. The response below addresses each component of the purpose statement.

> *Ecoroofs provide multiple complementary benefits in urban areas, including stormwater management,…*
> **Response:** The proposal will include stormwater management methods in compliance with BES standards, as described in the attached stormwater report.
>
> *reduction of air temperatures, mitigation of urban heat island impacts,…*
> **Response:** As shown in the attached roof plan, in areas where there is no ecoroof installed, the building will have a white TPO roof designed to reflect solar radiation, reduce ambient air temperatures, and mitigate the urban heat island effect.
>
> *air quality improvement, urban green spaces, and habitat for birds, plants and pollinators…*
> **Response:** In addition to 2,570 SF of ecoroof, the project proposes planters installed on the canopies along all three street-facing sides of the building, allowing for additional planting area for plants and trees which will improve air quality. Non-structural stainless-steel cables will extend from the planters to the building parapet to allow plants to grow vertically. The ecoscreen of plants along the building's upper façades will also reduce the overall heat gain of the building while also increasing air quality and providing habitats for birds, plants, and pollinators. These planters will also add significantly to the urban greenspace appearance of the building and site (currently impervious gravel) and create additional habitat.
>
> *The standards are intended to:*
> - *Maximize the coverage of ecoroofs;*
> - *Allow for the placement of structures and other items that need to be located on roofs; and*
> - *Support the architectural variability of rooftops in the Central City.*
>
> **Response:** The project includes as much ecoroof as possible given the design and structural support needs of ecoroofs. Adequate mechanical equipment area is allowed. The angled roof shape and variety within the form of the proposed building will be a unique feature in the district that will add significantly to the overall architectural variability of rooftops in the Central City, most of which are flat or relatively flat.

B. If in a residential, CI1, or IR zone, the proposal will not significantly detract from the livability or appearance of the residential area, or if in an OS, C, E, I, or CI2 zone, the proposal will be consistent with the classifications of the adjacent streets and the desired character of the area; [and]

Response: This response addresses the proposal as a whole, including the three Adjustments.

The site is in an I zone. The classifications of the adjacent streets are addressed in the Public Services section above (33.815.215.A); as described there, the project will be consistent.

As also discussed above (33.815.215.B), the local area has many other event and entertainment venues and businesses, and the building appearance and height will blend in with the surrounding buildings. This is consistent with the desired character of the IG1 zone at and adjacent to the subject property:

> ***Desired Character.*** *The preferred and envisioned character (usually of an area) based on the purpose statement or character statement of the base zone, overlay zone, or plan district. It also includes the preferred and envisioned character based on any adopted area plans or design guidelines for an area.*

As noted in the responses to 33.815.215.B. above, the intent of the General Industrial Zones is to "promote viable and attractive industrial areas" and the General Industrial 1 (IG1) zone is described in the code as generally having "smaller lots and a grid block pattern. The area is mostly developed, with sites having high building coverages and buildings which are usually close to the street." See the response to 33.815.215.B. for an explanation of how the proposal is consistent with the purpose of the base zone.

There is no overlay district, but the site is in the Central City plan district, which implements the Central City 2035 Plan, a plan that identifies many components of the unique character of the Central City. Per 33.510.010:

> *The Central City plan district implements the Central City 2035 Plan. The regulations address the unique role the Central City plays as the region's premier center for jobs, health and human services, tourism, entertainment and urban living. The regulations encourage a high-density urban area with a broad mix of commercial, residential, industrial and institutional uses, and foster transit-supportive development, pedestrian and bicycle-friendly streets, a vibrant public realm and a healthy urban river.*

The Central City is the area of the City most appropriate for a large entertainment venue such as the proposed development. The proposal will connect users to transit, improve pedestrian facilities, provide adequate bicycle facilities, and create a more vibrant public realm. The proposed development is consistent with the desired character of the Central City district as it provides an entertainment venue, supports a mix of uses in the area, and will encourage multimodal transportation through several methods identified in the TDM plan (attached to the TIS).

As component features of the overall project, Adjustment 1 will allow short-term bike parking to be provided by alternative means on an event-driven basis, Adjustment 2 will allow the proposed dock door configuration, and Adjustment 3 will allow the project to satisfy storm water management requirements by combining a partial eco-roofing of the building (to the extent feasible based on its compound-slope design) with on-site treatment facilities at grade level. None of the requested adjustments will cause the proposed development to be inconsistent with the classifications of the adjacent streets and the desired character of the area. This standard is met.

C. If more than one adjustment is being requested, the cumulative effect of the adjustments results in a project which is still consistent with the overall purpose of the zone; and

Response: The three adjustment requests pertain to distinct and mostly unrelated code compliance issues concerning the proposed plan for a new event venue. This venue is allowed conditionally and meets all the criteria for conditional use approval, including alignment with the zone's intent, as previously discussed in the responses to 33.815.215.B. and 33.805.040.B.

Adjustment 1 will allow far more bicycle parking than required by Code, within right-of-way during events instead of on the site. Adjustment 2 will allow the required number of loading spaces in a more urban

setting, which is quite typical within the Central Eastside industrial area. Adjustment 3 will allow for less ecoroof coverage than required, but the proposal includes several unique and innovative green design features, including partial eco-roofing combined with at-grade surface facilities to meet the purpose of the standard. The combined effect of the proposed Adjustments will be to allow a better site-specific design for the conditionally allowed use, which will benefit the district and zone in this area.

This criterion is met.

D. City-designated scenic resources and historic resources in Historic, Conservation and National Register Districts and within the boundaries of Historic, Conservation and National Register Landmarks are preserved; and

Response: The site does not contain any City-designated scenic or historic resources. The requested Adjustments will not have any adverse impact on any City-designated resources.

E. Any impacts resulting from the adjustment are mitigated to the extent practical; and

Adjustment 1 Response: No impacts are anticipated as a result of the requested Adjustment to allow the operator to meet short-term bike parking needs by providing event-based temporary bike parking within the SE Salmon Street right-of-way. Doing so is feasible in the abutting segment of the street because it dead-ends at the west end of SE Salmon, so through traffic is not an option. Adjustment 1 will allow the facility operator to close the segment of SE Salmon Street adjacent to the building (with permitting from PBOT) and use that area to meet event-specific bike parking needs by providing temporary short-term bike parking at a location directly accessible by bike along a designated bike route. The resulting protected area will provide safety for bicyclists as well as other visitors. After events, the temporary bike parking equipment will be removed, and the public right-of-way reopened for vehicular access. Because SE Salmon Street is a dead-end street heading west, there will be no significant impact on traffic operations that requires mitigation; therefore, this standard does not apply to Adjustment 1.

Adjustment 2 Response: The proposed alternative to loading requirements will not impact traffic operations because the street dead-ends at the west end of SE Main Street, so no through traffic is allowed. Additionally, within the Central Eastside Industrial District, streets were designed to accommodate truck traffic and loading within the right-of-way and continue to operate on that basis today. Finally, since event-based PBOT Temporary Street Use Permits will be used for loading on the dead-end segment of SE Main Street, traffic on these roads will not be impacted. Proposed Adjustment 2 meets this criterion.

Adjustment 3 Response: No impacts are anticipated as a result of the requested Adjustment to meet stormwater requirements using less ecoroof area than the standard requires. The proposal includes several unique design qualities, including at-grade surface facilities, to meet the purpose of the standard being modified. This standard does not apply to Adjustment 3.

F. If in an environmental zone, the proposal has as few significant detrimental environmental impacts on the resource and resource values as is practicable;[or]

Response: The proposed project is not located within an environmental zone. This standard does not apply.

G. Application of the regulation in question would preclude all reasonable economic use of the site; and

H. Granting the adjustment is the minimum necessary to allow the use of the site; and

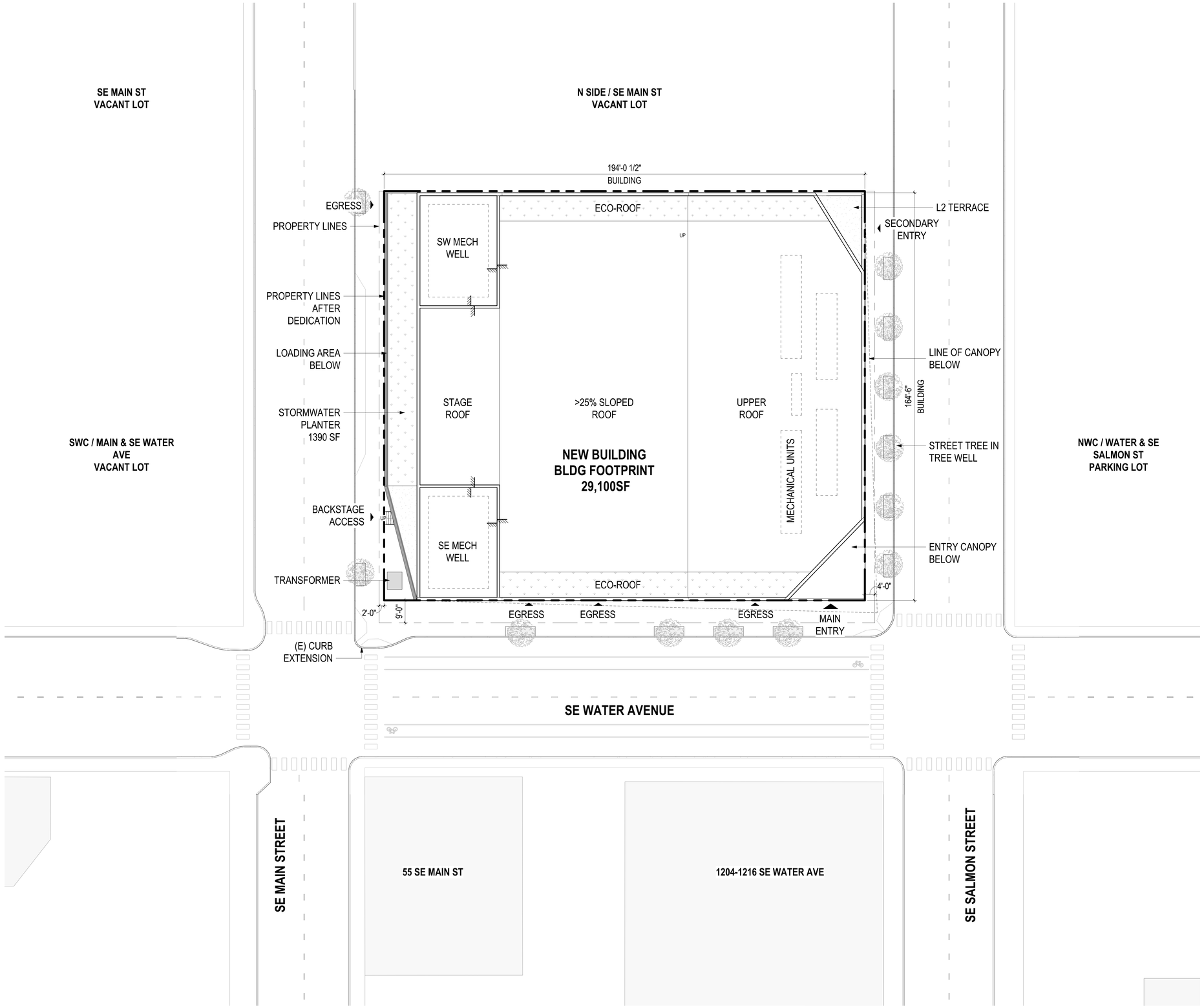
I. Any impacts resulting from the adjustment are mitigated to the extent practical.

Response: The applicant requests approval based on compliance with criteria A through F. Findings are therefore not required to address criteria G through I.

V. CONCLUSION

This application requests Conditional Use approval for the development of a new event venue in the Central Eastside Industrial District along with the approval of three Adjustments to development standards for bike parking, loading spaces, and ecoroof requirements.

Based on the information presented and discussed in this narrative, in conjunction with the attached supporting plans and documentation, the project demonstrates that it meets all criteria and standards. Furthermore, the project goes beyond just achieving the criteria for approval in that this innovative event venue will bring a much-needed vibrancy to the district, its people, its businesses, and the City at large. The applicant respectfully requests approval.



1 A100 SITE PLAN
SCALE: 1/16" = 1'-0"

SITE DATA TABLE

SITE AREA:
34,860 SF

SITE AREA AFTER DEDICATION:
32,040 SF

BUILDING FOOTPRINT:
29,100 SF

TOTAL BUILDING AREA:
62,200 SF

VENUE CAPACITY:
APPROX 3,500 OCCUPANTS

BIKE PARK. TOTALS

(TABLE 266-6 MAJOR EVENT ENTERTAINMENT)

LONG TERM BIKE PARKING:
REQ: 10 PROVIDED:10

SHORT TERM BIKE PARKING:
1280 / 40 = 32
REQ: 32 PROVIDED: 0

*0 SHORT TERM PROVIDED ON SUBJECT SITE. SEE ADJUSTMENT APPLICATION FOR MORE INFORMATION.

CENTRAL EASTSIDE VENUE

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PROJECT NUMBER
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SCALE
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SHEET TITLE
SITE PLAN

A100

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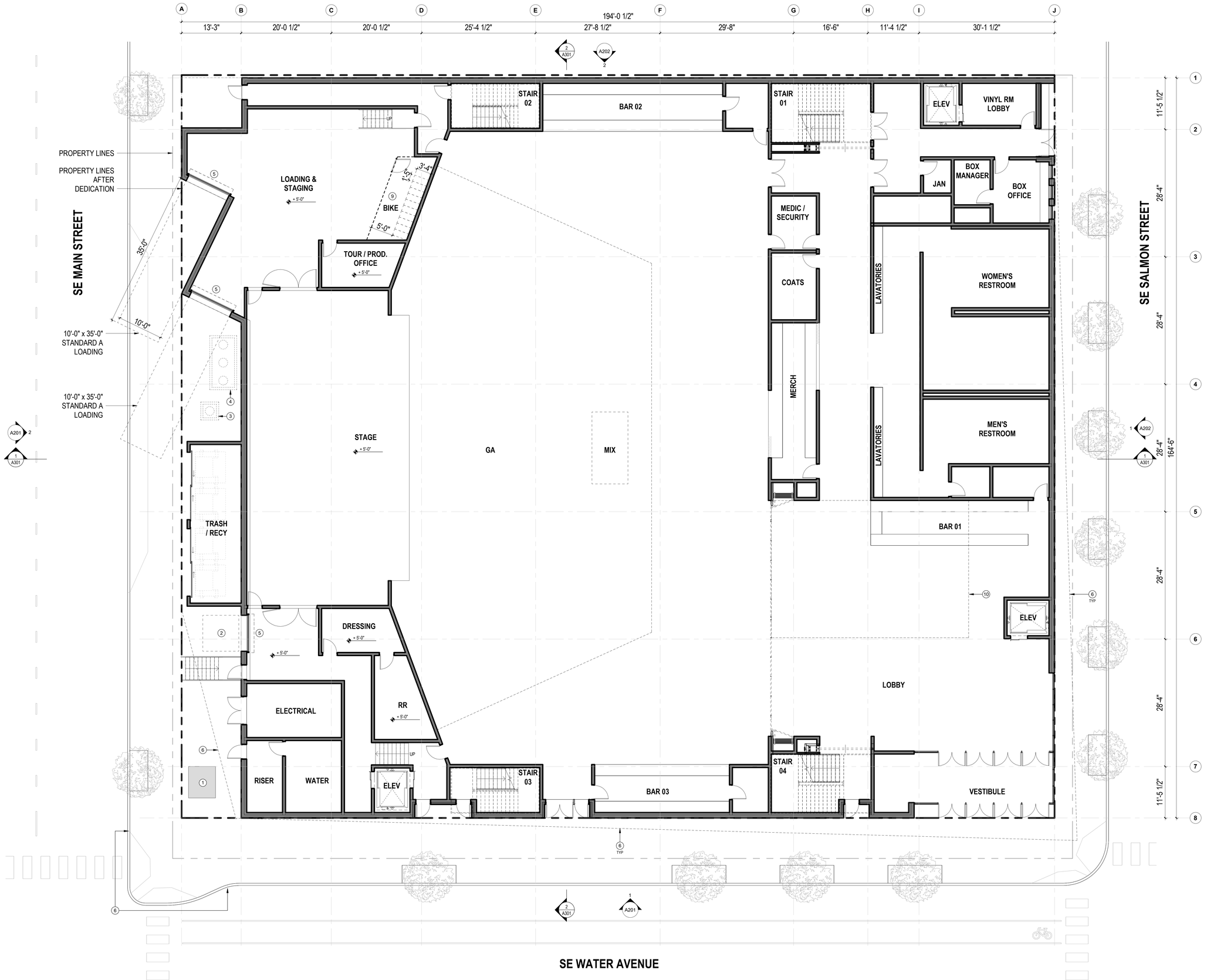

PLAN KEYNOTES

1 ELECTRICAL TRANSFORMER.

2 PLATFORM LIFT.

3 INSPECTION VAULT.

4 GREASE INTERCEPTOR.

5 OVERHEAD ROLL-UP DOOR.

6 LINE OF CANOPY ABOVE.

7 CLIMBING VINE PLANTER BELOW.

8 ROOFING MEMBRANE COMPLIANT WITH COOL ROOF REQUIREMENTS.

9 (10) LONG-TERM, ALTERNATIVE VERTICAL BIKE PARKING SPACES WITHIN ENCLOSURE.

10 LINE OF OPENING ABOVE

1 A101 FLOOR PLAN - LEVEL 1
SCALE: 1/8" = 1'-0"

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SCALE
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SHEET TITLE
FLOOR PLAN - LEVEL 1

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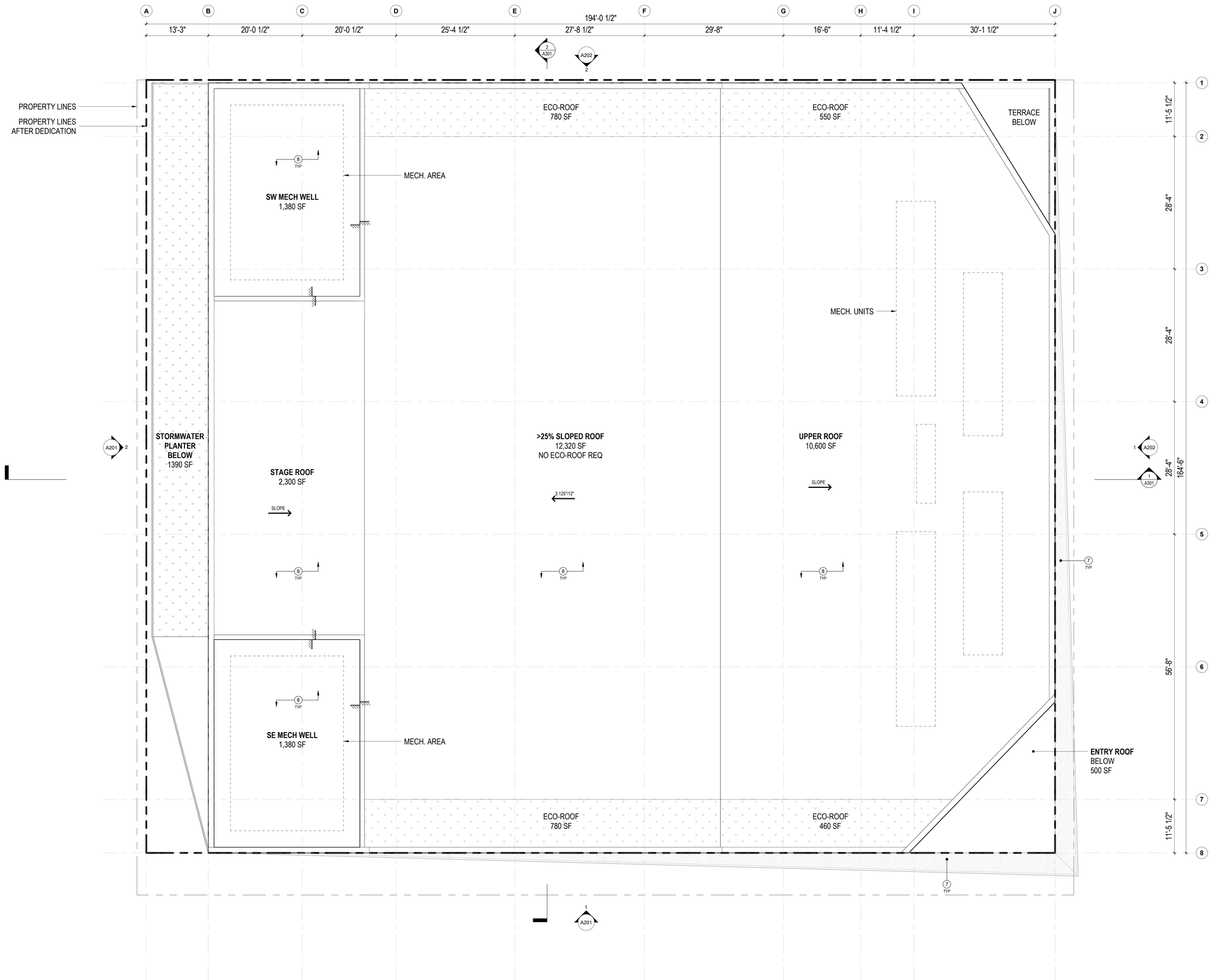

1 A105 FLOOR PLAN - ROOF
SCALE: 1/8" = 1'-0"

PLAN KEYNOTES

1 ELECTRICAL TRANSFORMER.
2 PLATFORM LIFT.
3 INSPECTION VAULT.
4 GREASE INTERCEPTOR.
5 OVERHEAD ROLL-UP DOOR.
6 LINE OF CANOPY ABOVE.
7 CLIMBING VINE PLANTER BELOW.
8 ROOFING MEMBRANE COMPLIANT WITH COOL ROOF REQUIREMENTS.
9 (10) LONG-TERM, ALTERNATIVE VERTICAL BIKE PARKING SPACES WITHIN ENCLOSURE.
10 LINE OF OPENING ABOVE

ECO-ROOF AREA

ROOF AREA WHERE ECO-ROOF IS REQUIRED:
1,380 + 2,300 + 1,380 + 10,600 + 500 = 16,160 SF

MECH AREA PROPOSED:
~3,150 SF

40% DEDUCTION ALLOWED FOR MECH & OTHER:
6,460 SF

60% REQUIRED ECO-ROOF:
9,700 SF

ECO-ROOF PROVIDED:
2,570SF

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SHEET TITLE
FLOOR PLAN - ROOF

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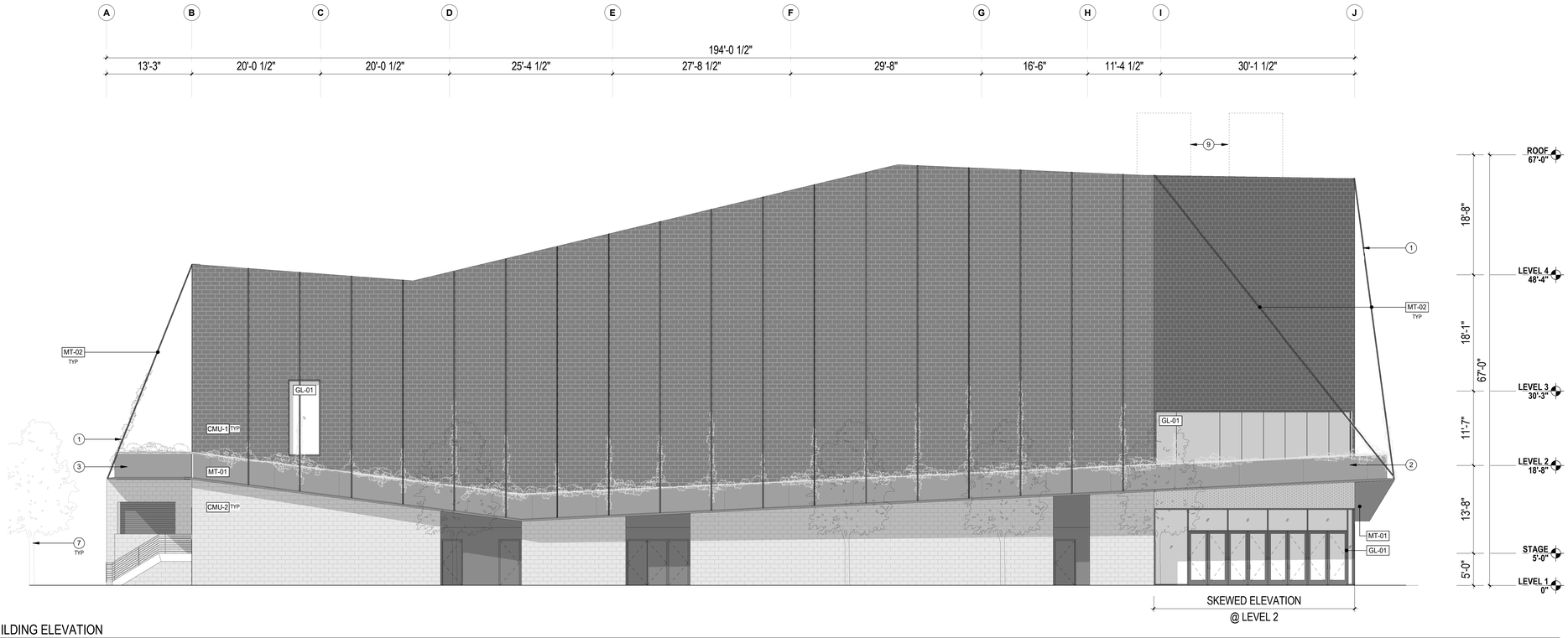
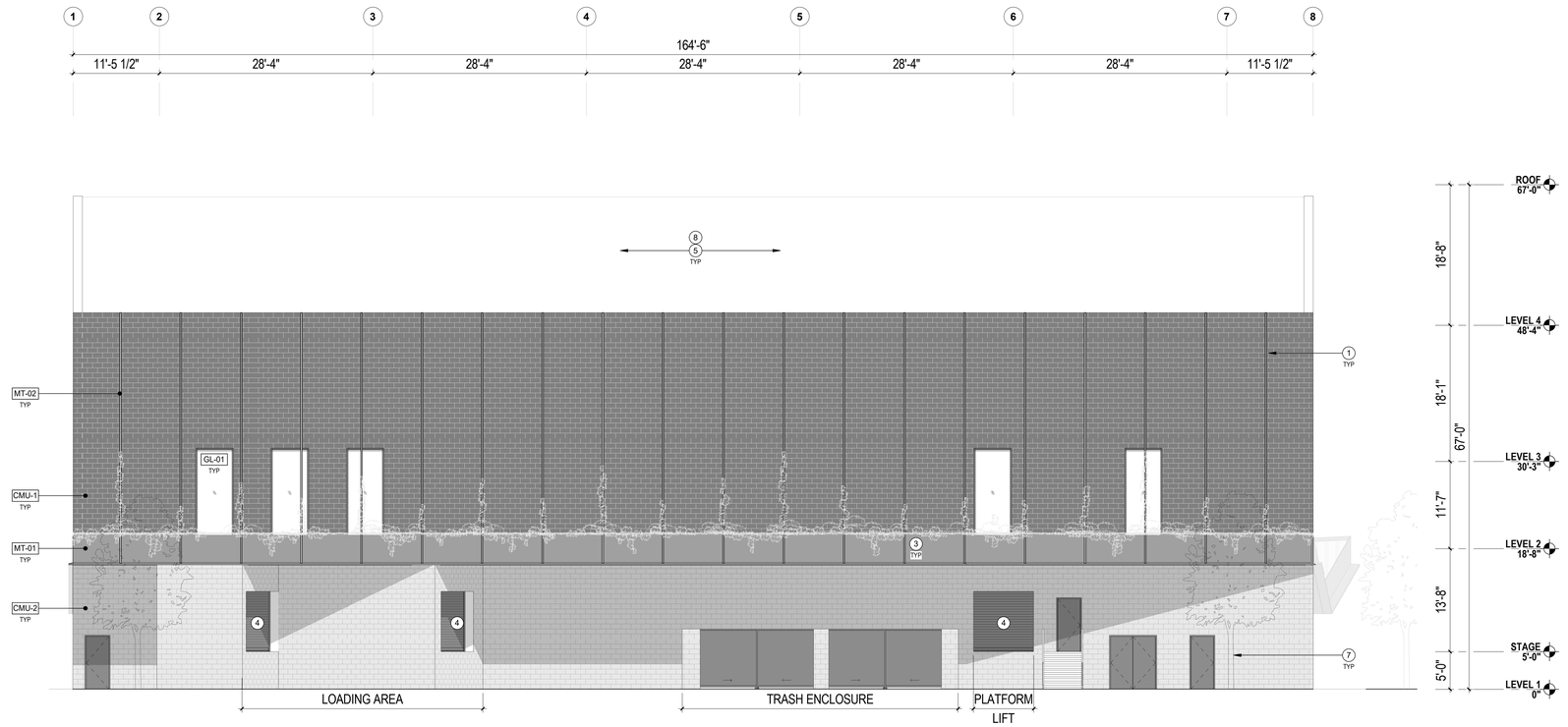


1 A201 EAST BUILDING ELEVATION
SCALE: 1/8" = 1'-0"



2 A201 SOUTH BUILDING ELEVATION
SCALE: 1/8" = 1'-0"

ELEV. KEYNOTES

1 CLIMBING VINE TRELLIS

2 CLIMBING VINE PLANTER/ CANOPY

3 STORMWATER PLANTER.

4 OVERHEAD ROLL-UP DOOR.

5 >25% SLOPED ROOF BEYOND.

6 EXISTING CURB EXTENSION

7 STREET TREE IN TREE WELL.

8 ROOFING MEMBRANE COMPLIANT WITH COOL ROOF REQUIREMENTS.

9 MECHANICAL UNIT BEYOND

EXT. FINISH LEGEND

CMU-1	CONCRETE MANSONRY UNIT
CMU-2	CONCRETE MANSONRY UNIT
GL-01	GLAZING SYSTEM
MT-01	METAL PANEL/SOFFIT
MT-02	METAL CABLE SYSTEM
MT-03	42" GUARDRAIL

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SCALE
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SHEET TITLE
EXTERIOR BUILDING ELEVATIONS - SOUTH & EAST

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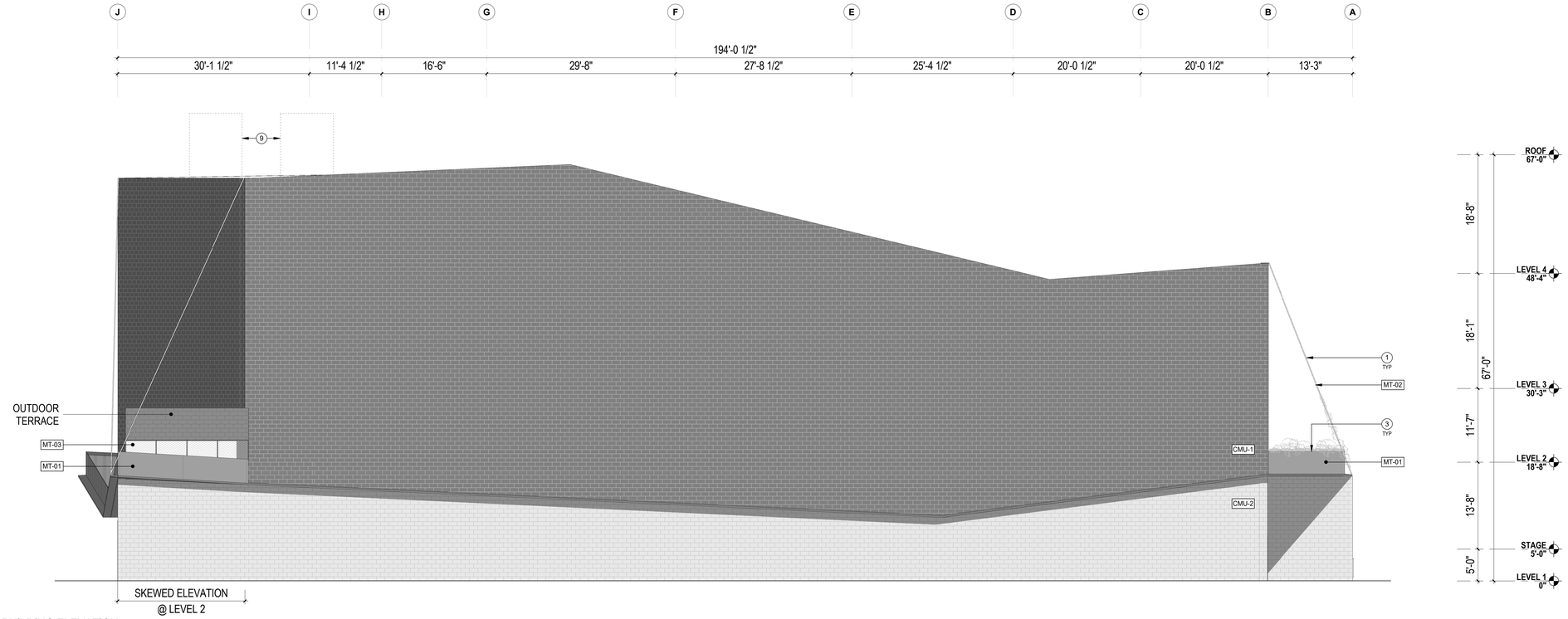
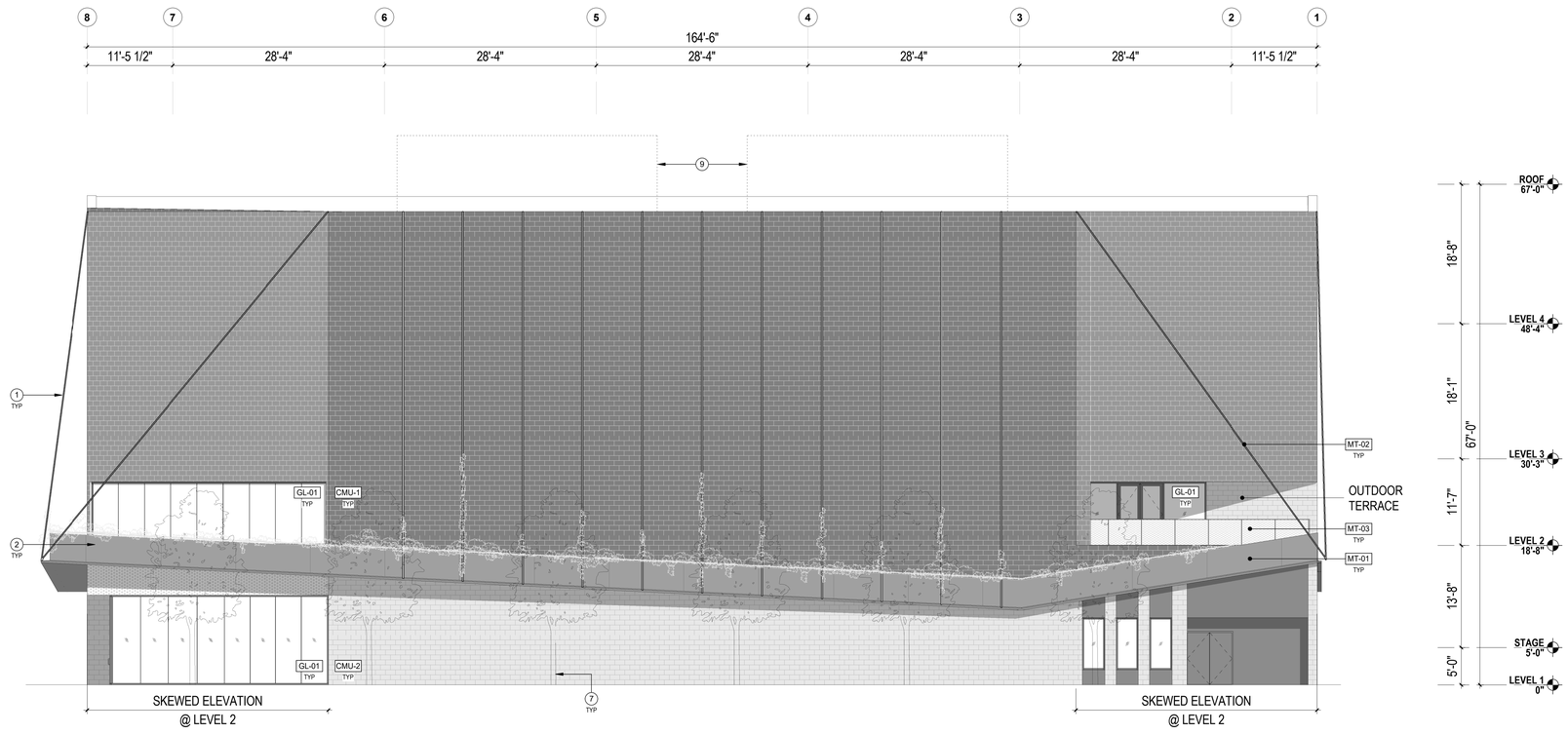


2 A202 WEST BUILDING ELEVATION

SCALE: 1/8" = 1'-0"



1 A202 NORTH BUILDING ELEVATION

SCALE: 1/8" = 1'-0"

ELEV. KEYNOTES

1 CLIMBING VINE TRELLIS

2 CLIMBING VINE PLANTER/ CANOPY

3 STORMWATER PLANTER.

4 OVERHEAD ROLL-UP DOOR.

5 >25% SLOPED ROOF BEYOND.

6 EXISTING CURB EXTENSION

7 STREET TREE IN TREE WELL.

8 ROOFING MEMBRANE COMPLIANT WITH COOL ROOF REQUIREMENTS.

9 MECHANICAL UNIT BEYOND

EXT. FINISH LEGEND

CMU-1	CONCRETE MANSONRY UNIT
CMU-2	CONCRETE MANSONRY UNIT
GL-01	GLAZING SYSTEM
MT-01	METAL PANEL/SOFFIT
MT-02	METAL CABLE SYSTEM
MT-03	42" GUARDRAIL

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SHEET TITLE
EXTERIOR BUILDING ELEVATIONS - NORTH & WEST

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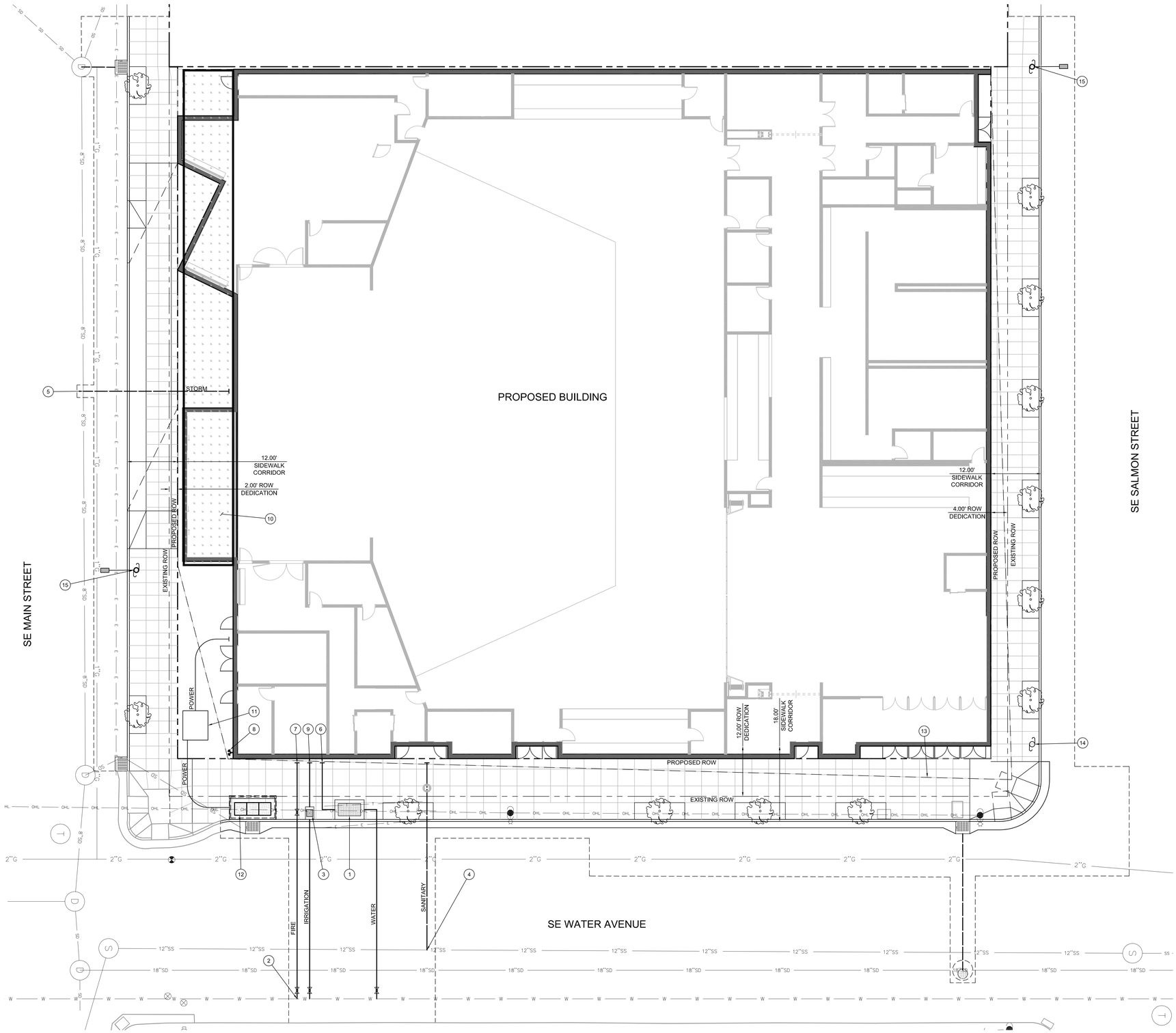

UTILITY PLAN
SCALE: 1"=10'

CONSTRUCTION NOTES

1. NEW WATER METER, BY PORTLAND WATER BUREAU.
2. NEW FIRE LINE, BY PORTLAND WATER BUREAU.
3. NEW IRRIGATION METER, BY PORTLAND WATER BUREAU.
4. NEW SANITARY SEWER CONNECTION TO 12" SANITARY SEWER MAIN.
5. NEW STORM SEWER CONNECTION TO 8" STORM SEWER MAIN.
6. DOMESTIC WATER CONNECTION TO BUILDING. PREMISES-ISOLATION (PI) DCVA TO BE INSTALLED IN BUILDING PER WATER BUREAU REQUIREMENTS.
7. FIRE CONNECTION TO BUILDING. PREMISES-ISOLATION (PI) DCDA TO BE INSTALLED IN BUILDING PER WATER BUREAU REQUIREMENTS.
8. FIRE DEPARTMENT CONNECTION MOUNTED TO BUILDING FACE.
9. IRRIGATION CONNECTION TO BUILDING. PREMISES-ISOLATION (PI) DCVA TO BE INSTALLED IN BUILDING PER WATER BUREAU REQUIREMENTS.
10. 1,387 VEGETATED FLOW-THROUGH PLANTER ON LOWER ROOF.
11. PGE TRANSFORMER VAULT.
12. PGE SWITCH VAULT.
13. ROOF OVERHANG.
14. NEW UTILITY POLE.
15. NEW UTILITY POLE WITH STREET LIGHT.

STORMWATER NARRATIVE

PRIVATE SITE

STORMWATER RUNOFF FROM SITE WILL BE DIRECTED TO THE VEGETATED FLOW-THROUGH STORMWATER PLANTER FOR WATER QUALITY AND FLOW CONTROL BEFORE BEING DISCHARGED TO THE PUBLIC STORM-ONLY SYSTEM IN SE MAIN STREET.

PUBLIC STREET IMPROVEMENTS

STORMWATER MANAGEMENT WILL BE TRIGGERED FOR THE PUBLIC RIGHT OF WAY. THE PROJECT WILL PAY THE STAFF REVIEW SPECIAL CIRCUMSTANCE OFFSITE MANAGEMENT FEE IN LIEU OF BUILDING NEW FACILITIES.

UTILITY CONTACTS

ELECTRICAL
BRYAN HANGARTNER
PORTLAND GENERAL ELECTRIC
BRYAN.HANGARTNER@PGN.COM
(503) 963-6988

BES
EMMA KOHLSMITH
BUREAU OF ENVIRONMENTAL SERVICES
EMMA.KOHLSMITH@PORTLANDOREGON.GOV
(503) 823-8427

WATER
BENJAMIN KERSENS
PORTLAND WATER BUREAU
BEN.KERSONS@PORTLANDOREGON.GOV
(503) 865-6370

N

0 10 20
1 INCH = 10 FEET

MUSIC VENUE LN

25 SE Salmon Street
Portland, OR 97214

ARCHITECT
LEVER
4713 N. Albina Avenue,
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VEGA
CIVIL ENGINEERING LLC
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STAMP

NOT FOR CONSTRUCTION

REVISIONS

PHASE
SCHEMATIC DESIGN

DATE
2023

PROJECT NUMBER
12345

SCALE
As indicated

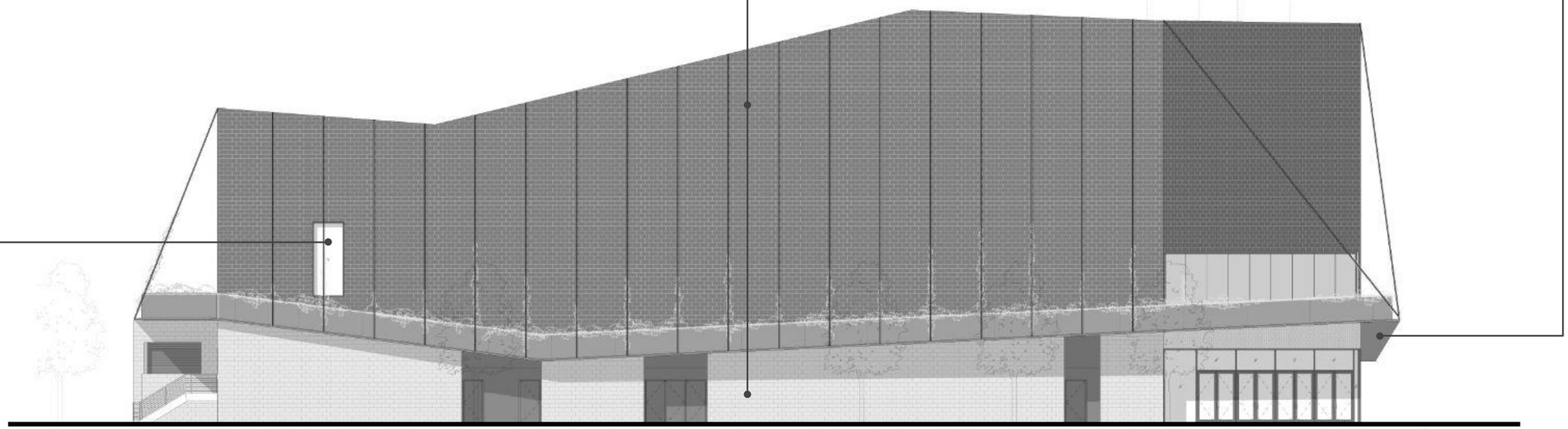
SHEET TITLE
UTILITY PLAN

C100

Punched Openings

Painted Concrete and Masonry

Suspended Canopy



Permit Stormwater Report

Music Venue LN

NWC/ Main & SE Water Ave
Portland, OR 97214

Date:
December 15th, 2023

Applicant:
Beam Development
1001 SE Water Ave, Suite 400
Portland, OR 97214

Associated Permit Numbers:
2022-128857-000-00-EA

Engineer of Record:
Martha Williamson, PE
Vega Civil Engineering, LLC
1300 SE Stark St #201
Portland, OR 97214
martha@vegacivil.com
(503)662-1901

I hereby certify that this Stormwater Management Report for Music Venue LN has been prepared by me or under my supervision and meets minimum standards of the City of Portland and normal standards of engineering practice. I hereby acknowledge that the jurisdiction does not and will not assume liability for the sufficiency, suitability, or performance of drainage facilities designed by me.

Table of Contents

Appendices

Project Overview and Description

Location	NWC/ Main & SE Water Ave
Site Area	32,040 SF
Vicinity Map	
Zoning	IG1 – General Industrial 1
Development Type	Commercial
Watershed	Willamette River – Oak/Alder/Division
Existing Conditions	The existing site includes a gravel parking lot.
Development Description	Construction of a new 4-story event venue.

Methodology

Existing Drainage	The existing site drains north to south and enters the public storm only sewer system in SE Salmon Street.
Infiltration Testing Results	Site contains known contaminated soils, so infiltration testing was not required.
Stormwater Hierarchy Justification	Infiltration is not possible on this site, and there is a storm-only sewer in SE Main Street; therefore, the project falls under Category 2 of the Stormwater Hierarchy, and runoff will be managed with a flow-through planter that will discharge to the storm-only sewer main in SE Main Street.
Proposed Stormwater Management System	Stormwater will be managed for water quality and quantity via vegetated flow-through stormwater planter, which will manage the roof area of the building.

Analysis

Relevant Design Storms	WQ – 1.61 inches 2yr – 2.4 inches 5yr – 2.9 inches 10yr – 3.4 inches
Computation Methods & Software	Presumptive Approach Calculator was used for sizing the stormwater facility.
Safety Factors	A safety factor of 2 was used for the tested infiltration rate.
Curve Numbers	A CN of 98 was used for all newly constructed impervious areas. The pre-developed condition was defined as a CN of 81 based on soil type.
Time of Concentration	5 min.
Escape Route or Inundation Level for 24-hour 100-yr event	Overflow from the 100-year storm event will be safely conveyed to the public system in SE Main Street.

Table 1 – Catchment and Facility Summary

Catchment or Facility ID	Impervious Area Type	Area (sf)	Ownership (private/public)	Facility Type	Facility Size – bottom area (sf)
Catchment A	Roof	32,040	Private	FTP	1387
Total Site Area		**32,040**			

Table 2 – Flow Rates

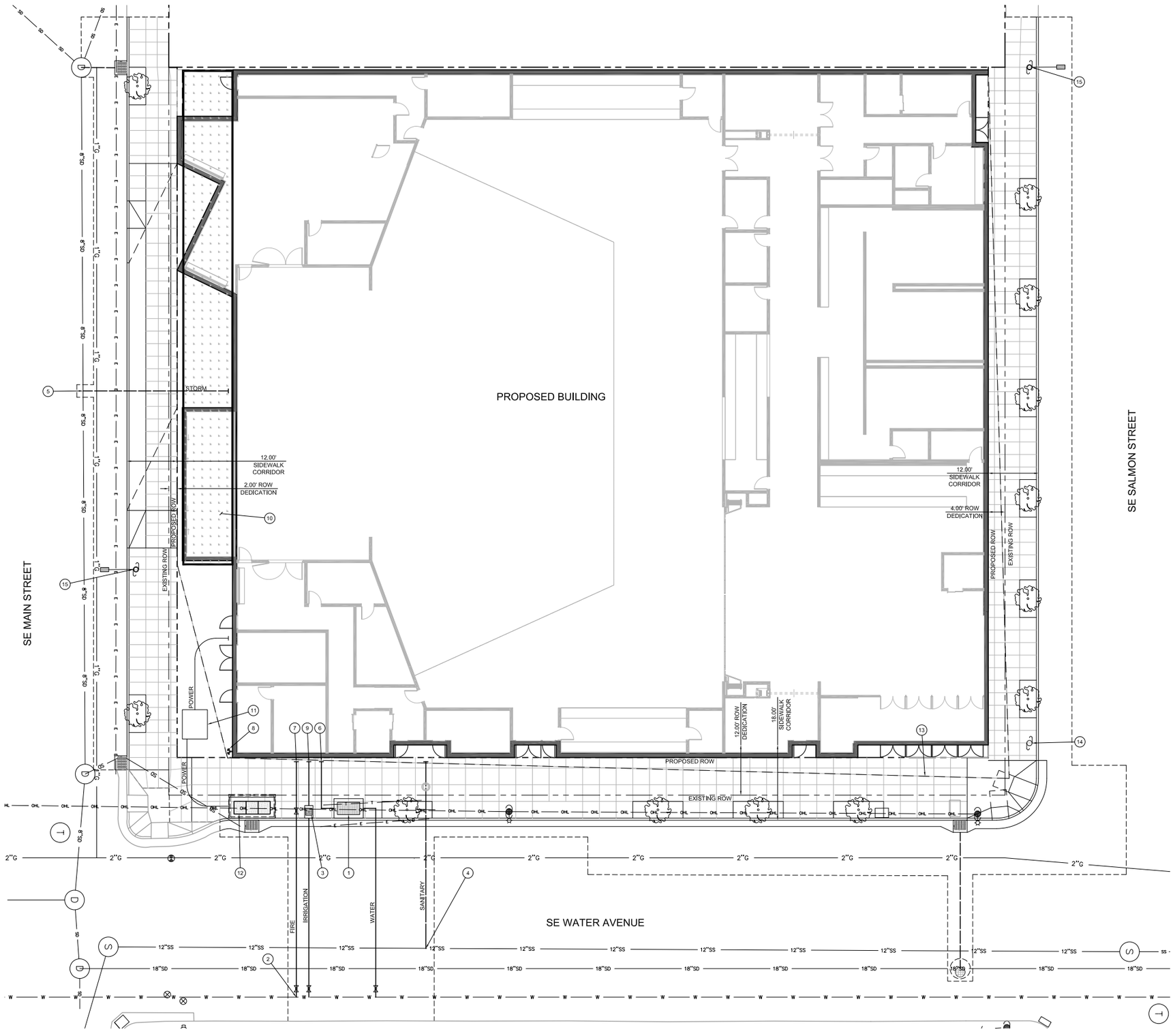
	2-year storm	5-Year Storm	10-Year Storm
Pre-developed	0.1388 cfs	0.2132 cfs	0.2956 cfs
Post-developed	0.1276 cfs	0.1293 cfs	0.2002 cfs

Engineering Conclusions

Water Quality	The proposed development will meet the requirements for water quality per the 2020 City of Portland Stormwater Management Manual
Water Quantity	The proposed development will meet the requirements for water quality per the 2020 City of Portland Stormwater Management Manual
Upstream / Downstream Impacts	The proposed development will not have an impact on upstream or downstream systems.

Appendix A - Stormwater Facility Details / Exhibits

Utility Plan
Catchment Map
Stormwater Planter Detail



UTILITY PLAN
SCALE: 1"=10'

CONSTRUCTION NOTES

1. NEW WATER METER, BY PORTLAND WATER BUREAU.
2. NEW FIRE LINE, BY PORTLAND WATER BUREAU.
3. NEW IRRIGATION METER, BY PORTLAND WATER BUREAU.
4. NEW SANITARY SEWER CONNECTION TO 12" SANITARY SEWER MAIN.
5. NEW STORM SEWER CONNECTION TO 8" STORM SEWER MAIN.
6. DOMESTIC WATER CONNECTION TO BUILDING. PREMISES-ISOLATION (PI) DCVA TO BE INSTALLED IN BUILDING PER WATER BUREAU REQUIREMENTS.
7. FIRE CONNECTION TO BUILDING. PREMISES-ISOLATION (PI) DCDA TO BE INSTALLED IN BUILDING PER WATER BUREAU REQUIREMENTS.
8. FIRE DEPARTMENT CONNECTION MOUNTED TO BUILDING FACE.
9. IRRIGATION CONNECTION TO BUILDING. PREMISES-ISOLATION (PI) DCVA TO BE INSTALLED IN BUILDING PER WATER BUREAU REQUIREMENTS.
10. 1,387 VEGETATED FLOW-THROUGH PLANTER ON LOWER ROOF.
11. PGE TRANSFORMER VAULT.
12. PGE SWITCH VAULT.
13. ROOF OVERHANG.
14. NEW UTILITY POLE.
15. NEW UTILITY POLE WITH STREET LIGHT.

STORMWATER NARRATIVE

PRIVATE SITE

STORMWATER RUNOFF FROM SITE WILL BE DIRECTED TO THE VEGETATED FLOW-THROUGH STORMWATER PLANTER FOR WATER QUALITY AND FLOW CONTROL BEFORE BEING DISCHARGED TO THE PUBLIC STORM-ONLY SYSTEM IN SE MAIN STREET.

PUBLIC STREET IMPROVEMENTS

STORMWATER MANAGEMENT WILL BE TRIGGERED FOR THE PUBLIC RIGHT OF WAY. THE PROJECT WILL PAY THE STAFF REVIEW SPECIAL CIRCUMSTANCE OFFSITE MANAGEMENT FEE IN LIEU OF BUILDING NEW FACILITIES.

UTILITY CONTACTS

ELECTRICAL
BRYAN HANGARTNER
PORTLAND GENERAL ELECTRIC
BRYAN.HANGARTNER@PGN.COM
(503) 963-6988

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BUREAU OF ENVIRONMENTAL SERVICES
EMMA.KOHLSMITH@PORTLANDOREGON.GOV
(503) 823-8427

WATER
BENJAMIN KERSENS
PORTLAND WATER BUREAU
BEN.KERSENS@PORTLANDOREGON.GOV
(503) 865-6370

N

0 10 20
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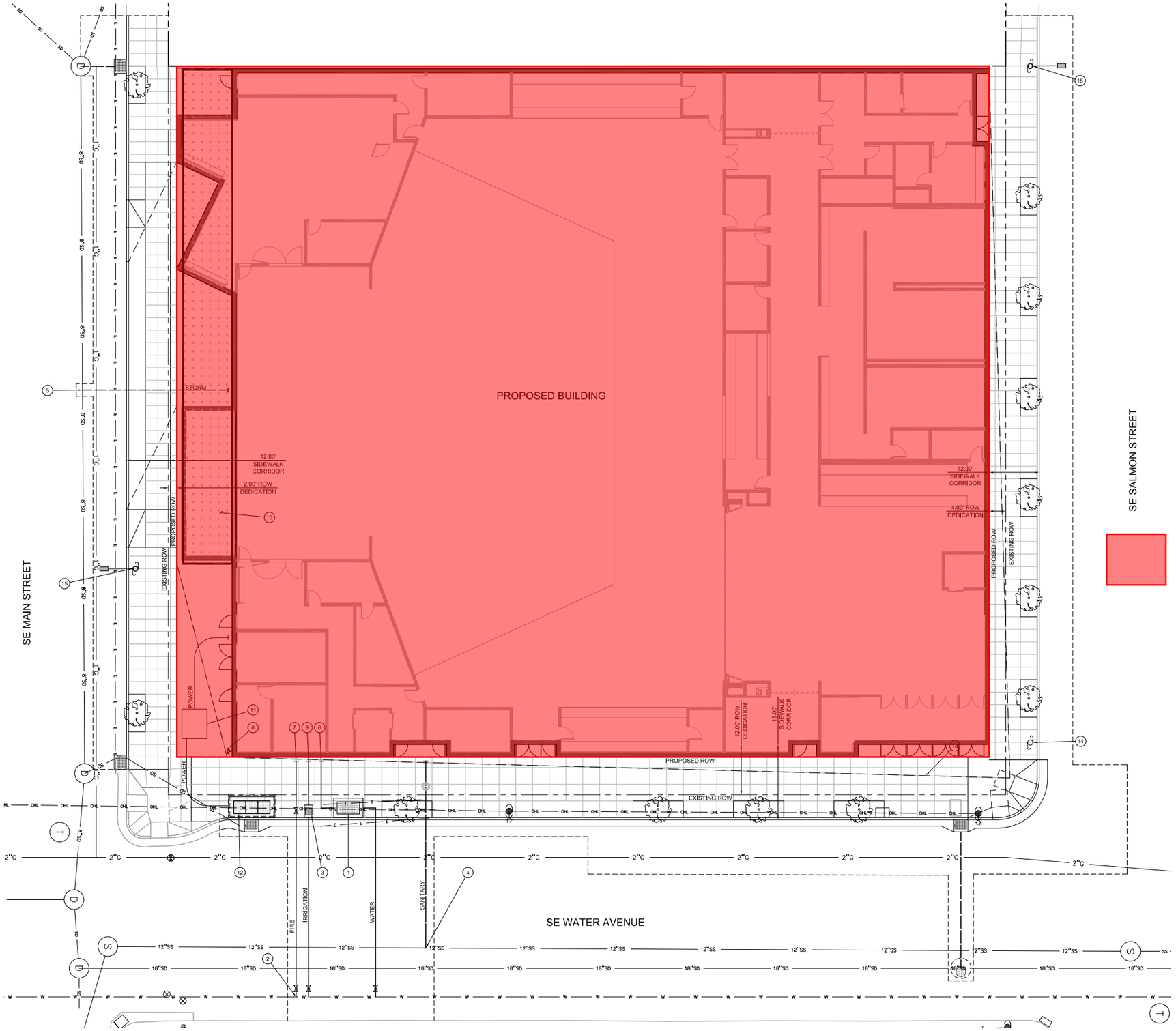

UTILITY PLAN
SCALE: 1"=10'

Catchment area = 32,040 SF

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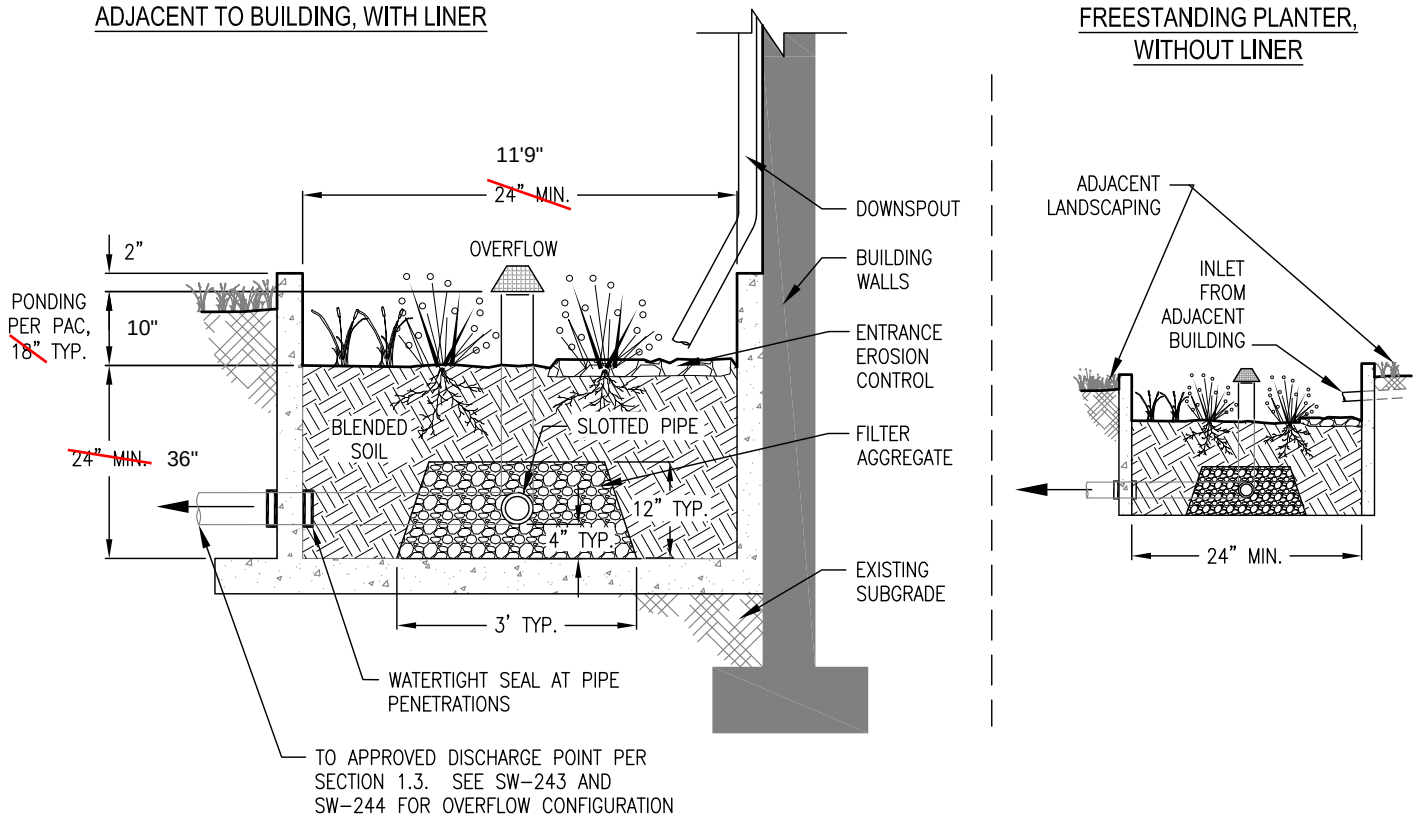


1. Detail intended as an example. Detail must match PAC assumptions and/or design report.
2. Setbacks: No setback is required for lined planters. For infiltration planters the setbacks are 5' from property lines except next to right-of-way, and 10' from building foundations. The planter wall height must be less than 30" above finished grade if within 5' of property line.
3. Planter Structure: A single pour, monolithic concrete shell without cold joints is required unless otherwise approved.
4. Waterproofing: No additional waterproofing is needed if the structure is a single pour, monolithic concrete shell.
5. Blended Soil: Use BES standard soil blend for stormwater facilities (SWMM Section 6.3) unless otherwise approved. Install minimum of 24" of blended soil.
6. Underdrain System: Sizing is per the PAC. The underdrain must be 4" slotted schedule 40 PVC well casing pipe manufactured with .050" slots, 6 slots per row. Embed the underdrain in $\frac{1}{4}$" No.10 washed angular aggregate. See SW-243 for longitudinal section and SW-244 for orifice examples. Conform with Oregon Plumbing Specialty Code (OPSC) requirements. Alternative configurations and materials such as cellular storage systems, drainage mats, and non-standard aggregates may be used under the Performance Approach, with BES approval.
7. Overflow: Overflow elevation must allow for 2" of freeboard, minimum. Protect from debris and sediment with strainer or grate.
8. Vegetation: Refer to plant list in SWMM Section 3.5. Minimum container size is 1 gal. Number of plantings per 100sf of facility area: 80 herbaceous plants OR 72 herbaceous plants and 4 small shrubs.
9. Entrance Erosion Control: Install river rock, flagstone, or similar to dissipate the energy of incoming water at entrances and ends of downspout extensions.
10. Check Dams: Spacing per the PAC. Check dam length must equal the full width of the planter.
11. Inspections: Call BDS IVR Inspection Line, (503) 823-7000, request 487. 3 inspections required.

CONSTRUCTION REQUIREMENTS

Do not allow temporary storage of construction waste or materials in the facilities. Do not allow entry of runoff or sediment during construction.

– DRAWING NOT TO SCALE –

Bureau of Environmental Services

STORMWATER MANAGEMENT TYPICAL DETAILS FOR PRIVATE PROPERTY

PLANTER WITH UNDERDRAIN

SW-231

9-8-20

PRESUMPTIVE AND PERFORMANCE DESIGN APPROACH

Appendix B - Calculations

Presumptive Approach Calculations

PAC Report

Project Details

Project Name	Permit No	Created
The venue		9/26/2023 3:25:04 PM
Project Address	**Designer**	**Last Modified**
SE Main & Water Ave		12/8/2023 9:21:35 PM
	Company	**Report Generated**
		12/11/2023 8:39:59 AM

Project Summary

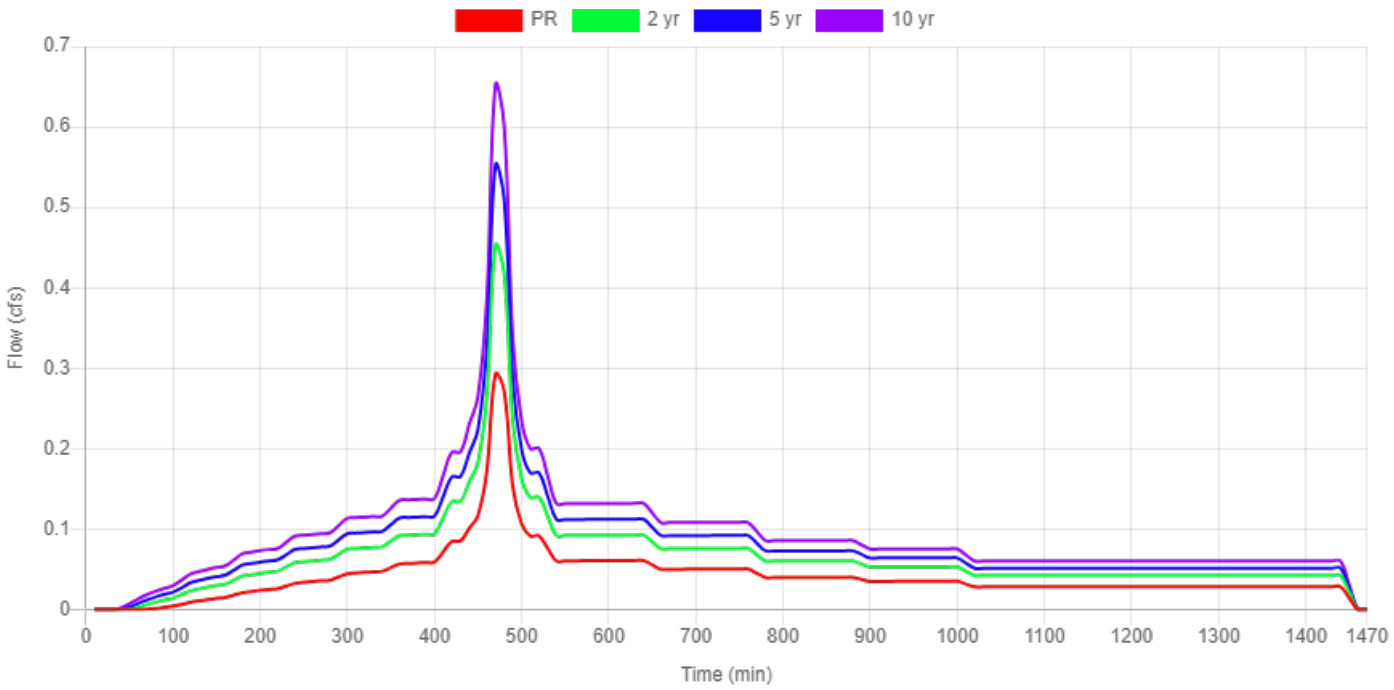
Catchment Name	Imper-vious Area (sq ft)	Native Soil Design Infilt-ration Rate (in/hr)	Level	Category	Config	Facility Area (excl. free board) (sq ft)	Facility Sizing Ratio (%)	PR Results	Infilt-ration Results	Flow Control Results
Site	32040	0	2C	FlatPlanter	D	1387.00	4.33	Pass	NA	Pass

Site

Site Soils & Infiltration Testing	Infiltration Testing Procedure NA Tested Native Soil Infiltration Rate 0 in/hr
Correction Factor	CF test 2
Design Infiltration Rates	Native Soil 0 in/hr Imported Blended Soil 6 in/hr
Catchment Information	Hierarchy Level 2C Hierarchy Description Base requirement for all other discharge points Pollution Reduction Requirement Filter the post-development stormwater runoff from the water quality storm event through the blended soil. Infiltration Requirement N/A Flow Control Requirement Limit the 2-yr, the 5-yr, and the 10-yr post-development peak flows to their respective pre-development peak flows. Impervious Area 32040 sq ft 0.736 acre Pre-Development Time of Concentration (Tc pre) 5 min Post-Development Time of Concentration (Tc post) 5 min Pre-Development Curve Number (CN pre) 81 Post-Development Curve Number (CN post) 98

SBUH Results

Post-Development Runoff



	Pre - Development Rate and Volume		Post - Development Rate and Volume	
	Peak Rate (cfs)	Total Volume (cf)	Peak Rate (cfs)	Total Volume (cf)
PR	0.0403	996.7	0.2927	3707.5
2-Year	0.1388	2327.7	0.4524	5797.5
5-Year	0.2132	3303.1	0.5525	7125.4
10-Year	0.2956	4346.6	0.6521	8455.3

	Overflow		Underdrain Outflow		Infiltration	
	Peak Rate (cfs)	Total Volume (cf)	Peak Rate (cfs)	Total Volume (cf)	Peak Rate (cfs)	Total Volume (cf)
PR	0	0	0.137	3655.1	0	0
2-Year	0	0	0.128	5745	0	0
5-Year	0	0	0.129	7073	0	0
10-Year	0.075	193.2	0.125	8209.7	0	0

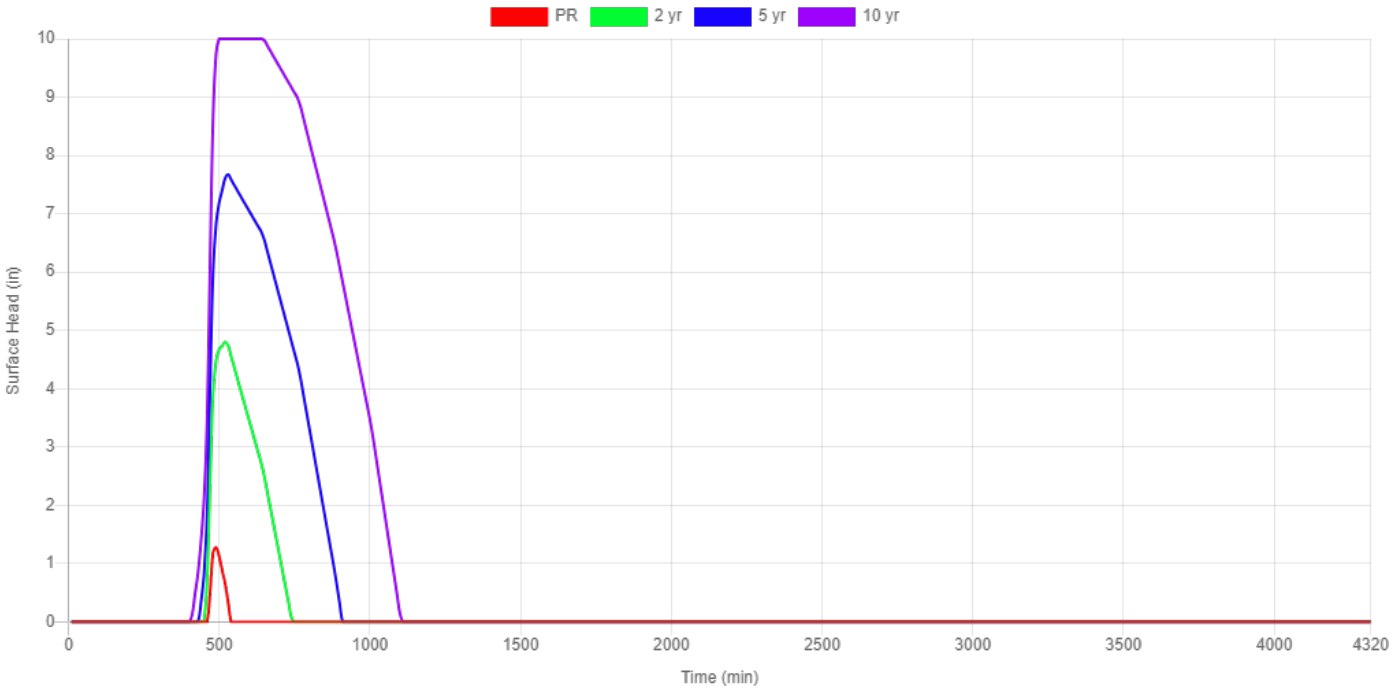
Flat Planter

Site Soils & Infiltration Testing	Category Flat Planter Shape Null Location Parcel Configuration D: Lined Facility with RS and Ud **Above Grade Storage Data** Bottom Area 1387 sq ft Bottom Width 11.50 ft Overflow Height 10.0 in Total Depth of Blended Soil plus Rock 36 in Surface Storage Capacity at Overflow 1155.83 cu ft Design Infiltration Rate to Soil Underlying the Facility 0.000 cfs Design Infiltration Rate for Imported Blended Soil in the Facility 0.193 cfs **Below Grade Storage Data** Catchment is too small for flow control? No Rock Area 93.59 sq ft Rock Width 3.00 ft Rock Storage Depth 12.0 in Rock Porosity 0.3 Underdrain Height

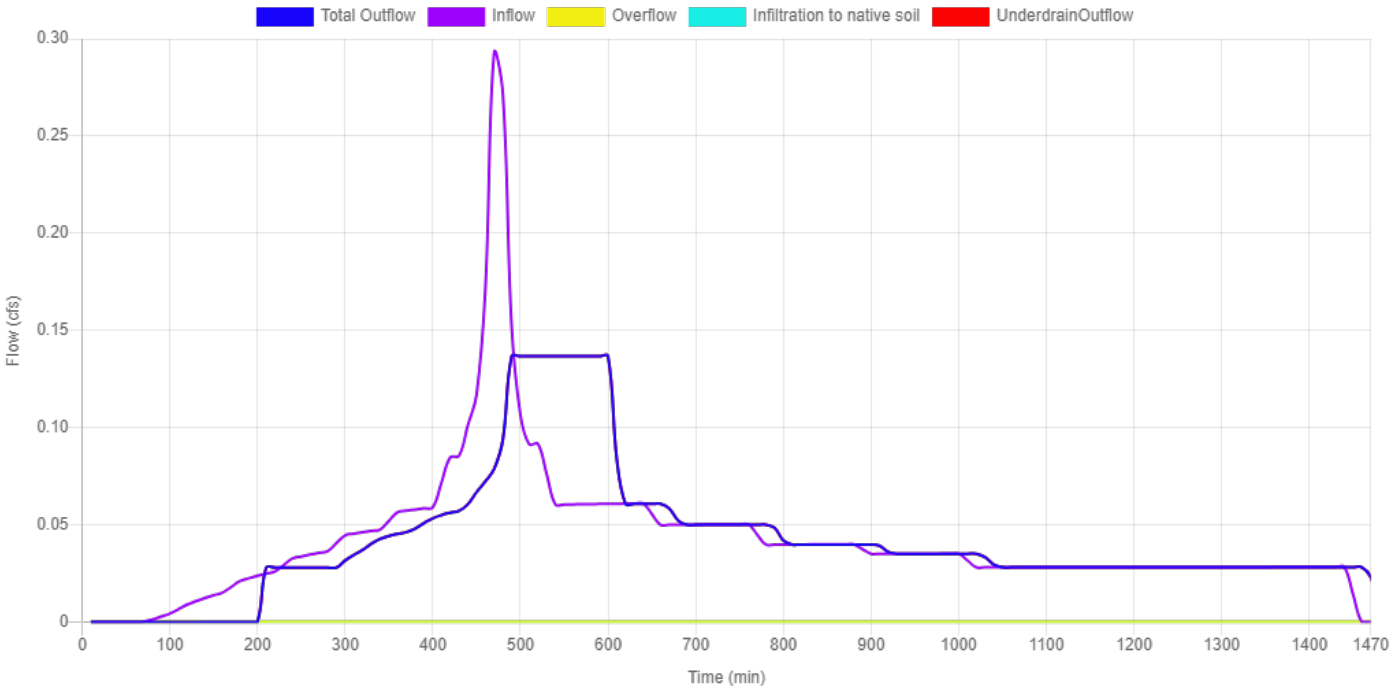
	4 in Percent of Facility Base that Allows Infiltration 0 % Orifice (Y/N)? Yes Orifice Diameter 2.000 in
Facility Facts	Total Facility Area (excluding freeboard) 1387.00 sq ft Sizing Ratio 4.33 %
Pollution Reduction Results	Pollution Reduction Score Pass Overflow Volume 0.00 cf Surface Capacity Used 12.74 %
Flow Control Results	Flow Control Score Pass

	STORMWATER FACILITY OUTFLOW (CFS)		PRE-DEVELOPMENT RUNOFF (CFS)
2 year	0.1276	<=	0.1388
5 year	0.1293	<=	0.2132
10 year	0.2002	<=	0.2956

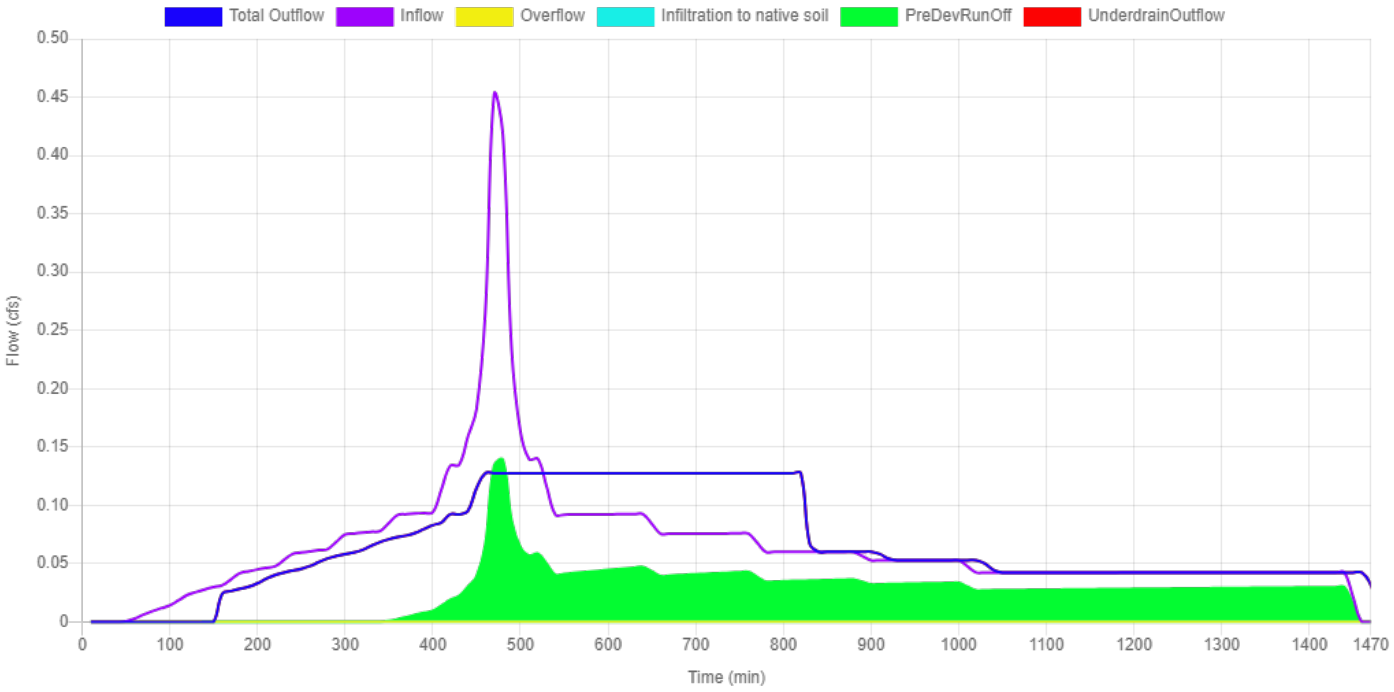
Surface Head



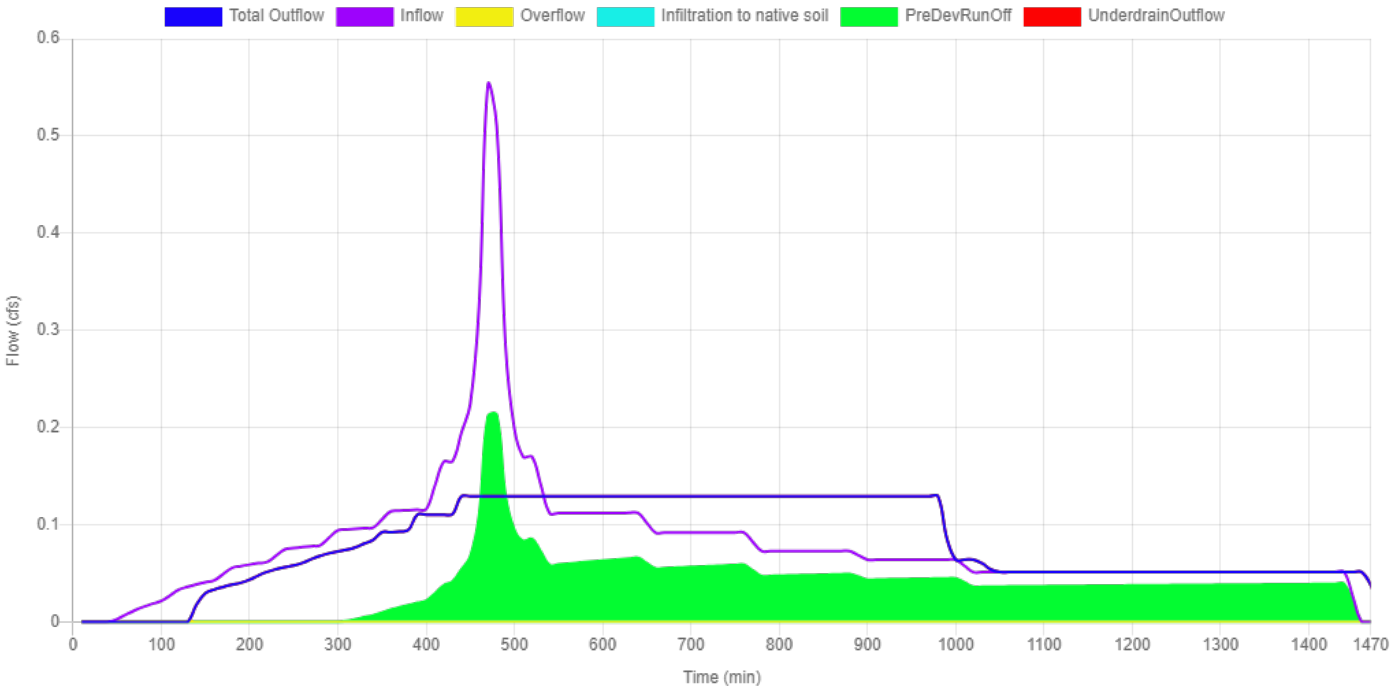
Water Quality



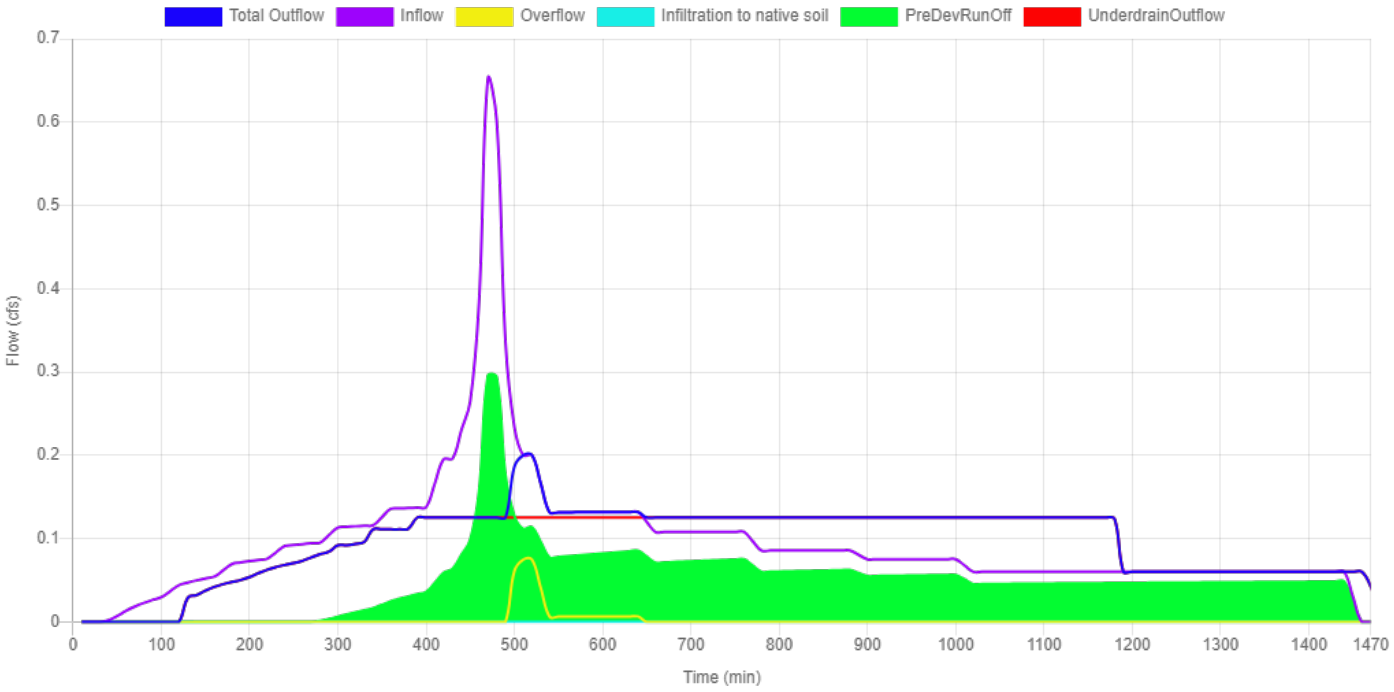
2-Year


Total Outflow
Inflow
Overflow
Infiltration to native soil
PreDevRunOff
UnderdrainOutflow
Flow (cfs)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1470
Time (min)

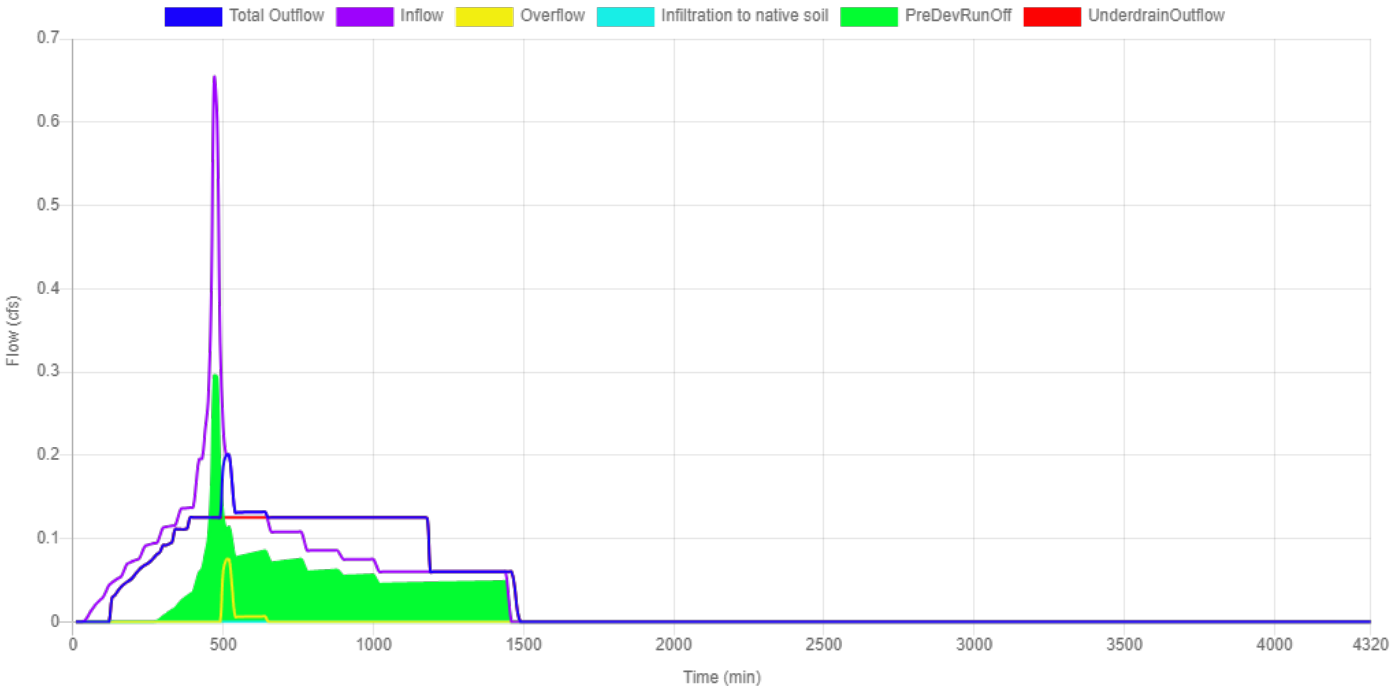
5-Year


Total Outflow
Inflow
Overflow
Infiltration to native soil
PreDevRunOff
UnderdrainOutflow
Flow (cfs)
0.6
0.5
0.4
0.3
0.2
0.1
0
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1470
Time (min)

10-Year



10-Year



PORTLAND CENTRAL EASTSIDE VENUE

TRANSPORTATION IMPACT STUDY

DECEMBER 2023

PREPARED BY DKS ASSOCIATES

KEVIN CHEWUK, PTP, AND BRIANNA VELASQUEZ

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

SECTION 1. INTRODUCTION

The purpose of this transportation impact study is to support the proposed Central Eastside Venue conditional use land use application. Included in the following sections is a documentation of existing transportation conditions, a summary of the assumptions and methodologies used to analyze future transportation conditions, a detail of operating conditions and a summary of recommendations to support the conditional use application.

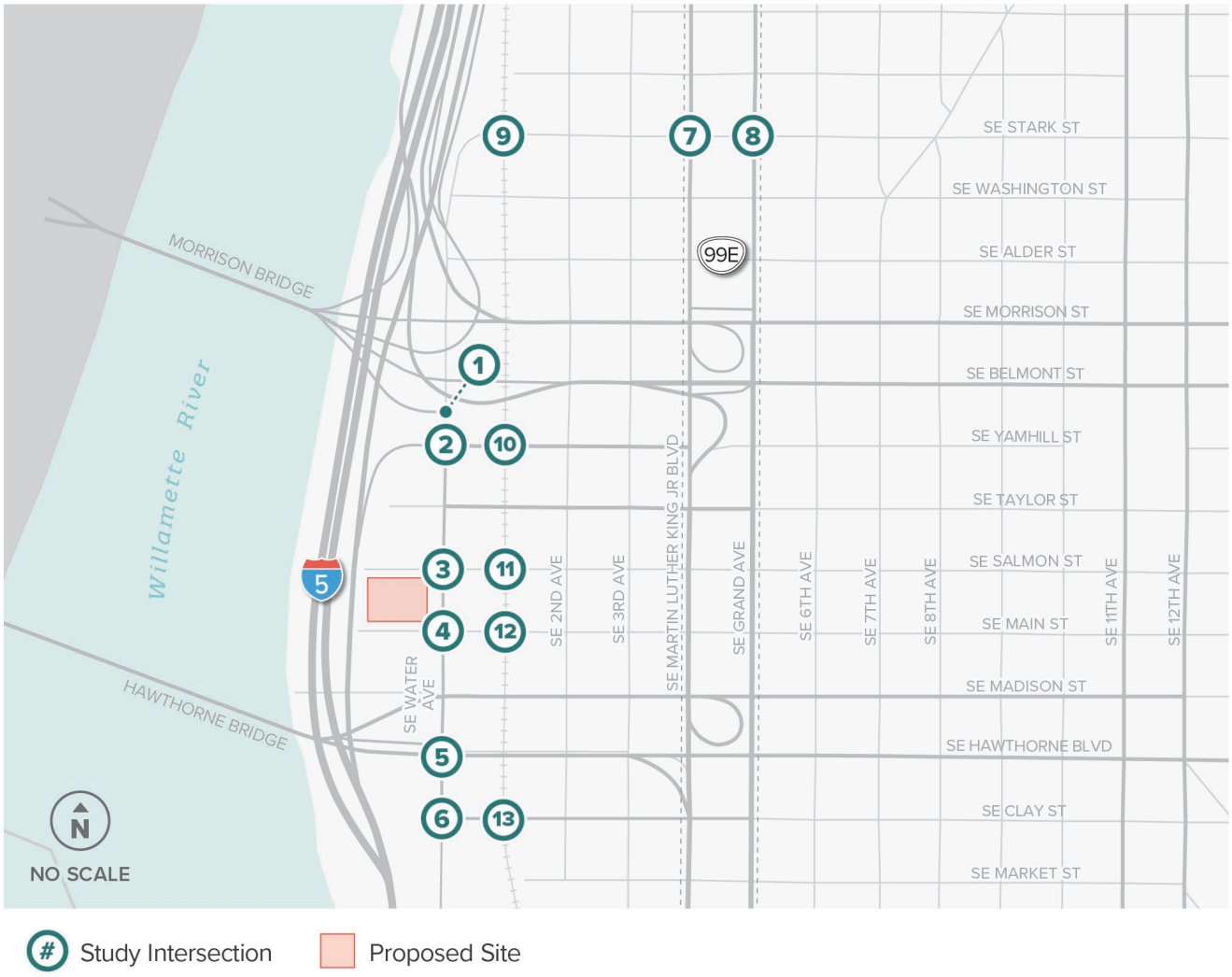
STUDY AREA

The proposed venue, shown in Figure 1, is located in the Central Eastside industrial area of inner southeast Portland along Water Avenue and is generally bounded by SE Salmon Street to the north, SE Main Street to the south, Interstate 5 (I-5) and the Willamette River to the west and the SE Water Avenue to the east. The following eight intersections and five adjacent at-grade railroad crossings were selected in coordination with Portland Bureau of Transportation (PBOT) and Oregon Department of Transportation (ODOT)[1] for evaluation:

1. SE Water Avenue/SE Morrison Bridge Off Ramp
2. SE Water Avenue & I-5 Off Ramp/SE Yamhill Street
3. SE Water Avenue/SE Salmon Street
4. SE Water Avenue/SE Main Street
5. SE Water Avenue/SE Hawthorne Boulevard
6. SE Water Avenue/SE Clay Street
7. SE Stark Street/SE Martin Luther King Jr Boulevard
8. SE Stark Street/SE Grand Avenue
9. SE Stark Street/Rail Crossing
10. SE Yamhill Street/Rail Crossing
11. SE Salmon Street/Rail Crossing
12. SE Main Street/Rail Crossing
13. SE Clay Street/Rail Crossing

[1] PBOT Traffic Scope Approval Form. Approved 6/2/2022.

FIGURE 1: STUDY INTERSECTIONS AND RAIL CROSSINGS



EXISTING 2023 TRANSPORTATION CONDITIONS

This section provides documentation of existing transportation conditions near the proposed venue, including an inventory of the existing transportation network, and an operational analysis and safety evaluation of the study intersections and crossings. For the purposes of the transportation analysis, the year 2023 was used as the baseline for existing conditions. Supporting details are provided in the appendix.

SITE CONDITIONS AND LAND USES

The proposed site is currently vacant and is surrounded by surface parking lots and industrial buildings. Adjacent property owners are ODOT and Prosper Portland to the north, south and west, and a collection of light industrial users to the east. The area surrounding the proposed venue is zoned exclusively General Industrial 1 (IG1) and is located within the Central City Plan District.

TRANSPORTATION FACILITIES

Existing transportation infrastructure includes a range of facilities for people who walk, ride bikes, use transit, or drive. The following sections summarize the existing infrastructure for the roadway, pedestrian, bicycle, and transit systems near the proposed venue.

EXISTING NETWORK CLASSIFICATIONS AND DESIGNATIONS

The City of Portland has multiple classifications and designations for streets depending on the roadway user[2]. These are summarized in Table 1 and include those for pedestrian, bicycle, transit, freight, street design and traffic. The classifications have been highlighted in the following way: bold for the highest priority for each classification or designation, italics for local class, and regular text for all other classes. More information on what each of these classifications entail can be found in Chapter 3 of the Portland Transportation System Plan.

[2] Transportation System Plan, City of Portland, March 2020.

TABLE 1: EXISTING NETWORK CLASSIFICATIONS NEAR THE PROPOSED VENUE

ROADWAY	PEDESTRIAN *	BICYCLE	TRANSIT	FREIGHT **	STREET DESIGN	TRAFFIC
ROADWAYS ADJACENT TO THE PROPOSED VENUE						
SE WATER AVE	**Major City Walkway**	**Major City Bikeway**	*Local Service Transit Street*	Priority Truck Street	Neighborhood Main Street	Traffic Access Street
SE SALMON ST	**Major City Walkway**/ *Local Street****	**Major City Bikeway**	*Local Service Transit Street*	Freight District Street	*Local Street*	*Local Service Traffic Street*
SE MAIN ST	*Local Street*	City Bikeway/ *Local Service Bikeway*****	*Local Service Transit Street*	Freight District Street	*Local Street*	*Local Service Traffic Street*
OFF-SITE ROADWAYS						
SE MLK JR BLVD	**Major City Walkway**	City Bikeway	**Major Transit Priority Street**	Priority Truck Street	Civic Corridor	**Major City Traffic Street**
SE GRAND AVE	**Major City Walkway**	City Bikeway	**Major Transit Priority Street**	Priority Truck Street	Civic Main Street	**Major City Traffic Street**
SE STARK STREET	**Major City Walkway**	City Bikeway	*Local Service Transit Street*	Priority Truck Street	Neighborhood Corridor	Traffic Access Street
SE YAMHILL ST	City Walkway	*Local Service Bikeway*	*Local Service Transit Street*	Freight District Street	*Local Street*	Traffic Access Street
SE CLAY ST	City Walkway	City Bikeway	*Local Service Transit Street*	Freight District Street	*Local Street*	Traffic Access Street

* All streets in the study area are within the Central City Pedestrian District.

** All streets in the study area are within the Central Eastside Freight District.

*** Local Street designation west of SE Water Avenue and Major City Walkway east of SE Water Avenue.

**** City Bikeway designation west of SE Water Avenue and Local Service Bikeway east of SE Water Avenue.

The classifications have been highlighted in the following way: bold for highest priority class, italics for local class, and regular text for all other classes.

EXISTING ROADWAY AND FREIGHT NETWORK

Table 2 summarizes the characteristics of the existing roadways near the proposed venue. SE Water Avenue provides north-to-south motor vehicle movement adjacent to the proposed venue, connecting SE Stark Street to the north with SE Clay Street and the OMSI district to the south. It is classified by the City of Portland as a Traffic Access Street and includes a Priority Truck Street

designation (see Table 1). It maintains a continuous two-lane cross-section (i.e., one through lane in each direction) near the proposed venue.

The nearest private vehicle crossings of the Willamette River to the west of the proposed venue are the Morrison Bridge to the north and the Hawthorne Bridge to the south of the proposed venue.

SE Grand Avenue (one-way northbound) and SE Martin Luther King Jr Boulevard (one-way southbound) parallel SE Water Avenue to the east. SE Salmon Street and SE Main Street are classified as Local Service Traffic Streets and include Freight District Street designations since the area is located within the Central Eastside Freight District.

Existing Access and Parking

Existing vehicle access to the proposed venue is provided by driveways on SE Salmon Street and SE Main Street. The surface lots and street parking surrounding the proposed venue provide parking for existing uses. A parking study of the area surrounding the proposed venue is summarized later in this document.

TABLE 2: EXISTING ROADWAY CHARACTERISTICS NEAR THE PROPOSED VENUE

ROADWAY (SEGMENT LOCATION)	JURISDICTION	NUMBER OF LANES	PEDESTRIAN FACILITY	BICYCLE FACILITY	ON-STREET PARKING
SE WATER AVE (SE SALMON ST TO SE MAIN ST)	City of Portland	2	Sidewalks on Both Sides	Bike Lanes	Yes
SE SALMON ST (WEST OF SE WATER AVE)	City of Portland	2	Sidewalks on Both Sides	None	Yes
SE MAIN ST (WEST OF SE WATER AVE)	City of Portland	2	Sidewalks on Both Sides	None	Yes

EXISTING RAIL NETWORK AND CROSSINGS

The Union Pacific railroad tracks parallel SE Water Avenue to the east near the proposed venue and areas to the north and south through the Central Eastside of Portland. At-grade crossings are available on all streets between SE Stark Street and SE Clay Street. Train switching along this rail line coupled with the long train lengths block the at-grade road, pedestrian, and bikeway crossings at times during the day, making it difficult for people to get around them. This blockage creates a barrier between SE Water Avenue and areas to the east, with significant out of direction travel to the nearest overcrossing opportunities. The nearest grade separated private vehicle crossings of the railroad tracks are along SE Morrison Street and SE Belmont Street to the north and SE Madison Street and SE Hawthorne Boulevard to the south of the proposed venue, although westbound vehicle traffic has no access to SE Water Avenue and must cross the Willamette River and return eastbound across the Morrison Bridge or Hawthorne Bridge to exit onto SE Water Avenue. The nearest cyclist and pedestrian overcrossing opportunities are available at SE Belmont

Street to the north and SE Madison Street to the south of the proposed venue (i.e., distances of less than 1/4 mile), and can be accessed via stairs from SE Water Avenue or ramps from the Eastbank Esplanade.

Details on the public study rail crossings adjacent to SE Water Avenue study intersections are summarized in Table 3. These at-grade crossings are located between SE Water Avenue and SE 2nd Avenue, about 200 feet from each intersection. These crossings experience an estimated 25 daily train movements[3], including 2-3 switching trains, 19 freight trains and 6 passenger trains each day. Half of the train movements occur during the day between 6 a.m. and 6 p.m. with the remainder occurring in the evening and night between 6 p.m. and 6 a.m.

TABLE 3: EXISTING CHARACTERISTICS AT STUDY RAIL CROSSINGS

RAIL CROSSING (USDOT CROSSING ID)	ROADWAY CROSSING PROTECTION	PEDESTRIAN CROSSING PROTECTION	TRAIN CROSSINGS PER DAY	AVERAGE TRAIN SPEED
SE STARK STREET (754542S)	Roadway Gates	None	19 (freight); 6 (passenger)	17-35 mph
SE YAMHILL STREET (754550J)	Roadway Gates	None		
SE SALMON STREET (754552X)	Roadway Gates	None		
SE MAIN ST (754553E)	Roadway Gates	None		
SE CLAY STREET (754559V)	Roadway Gates/ Overhead Lights	None		

EXISTING PEDESTRIAN NETWORK

The proposed venue is very accessible to pedestrians and is well-served by a network of continuous sidewalks on the surrounding streets, as shown in Table 2. SE Water Avenue provides sidewalks on both sides and is classified as a Major City Walkway (see Table 1). It connects pedestrians to the Major City Walkways along SE Salmon Street, SE Madison Street viaduct (accessed via stairs) and SE Hawthorne Boulevard viaduct (accessed via stairs) and City Walkways along SE Yamhill Street, SE Taylor Street and SE Clay Street.

The Eastbank Esplanade is located just to the west of the proposed venue, extending for nearly two miles along the Willamette River, from the Steel Bridge to SE Caruthers Street. This route connects pedestrians to several crossing opportunities to the west side of the river, including the Tilikum Crossing, Hawthorne Bridge, Morrison Bridge, Burnside Bridge and Steel Bridge. Pedestrians can currently access the Eastbank Esplanade from SE Salmon Street and SE Main Street. There is also

[3] Crossing Inventory Report, U.S. Department of Transportation, Federal Railroad Administration.

pedestrian access to the Eastbank Esplanade via ramps from the Morrison Bridge and Hawthorne Bridge.

EXISTING BICYCLE NETWORK

SE Water Avenue provides bike lanes and is classified as a Major City Bikeway (see Table 1 and Table 2). It connects bicyclists to the Major City Bikeways along SE Salmon Street, SE Morrison Street and SE Belmont Street (under the Morrison Bridge viaduct), and SE Madison Street viaduct and SE Hawthorne Boulevard viaduct (accessed via the Eastbank Esplanade ramps) and City Bikeway along SE Main Street (west of SE Water Avenue), SE Madison Street (under the SE Madison Street viaduct), and SE Clay Street. SE Water Avenue, which turns into SE 4th Avenue south of SE Caruthers Street, provides bicyclists a connection to the Springwater Corridor trail.

Buffered bicycle lanes are provided on the SE Madison Street viaduct and SE Hawthorne Boulevard viaduct, connecting the Eastbank Esplanade and Hawthorne Bridge to SE Grand Avenue and neighborhoods further to the east. SE Salmon Street also provides a Major City bike route between the Eastbank Esplanade and southeast Portland, although it does not currently have any bike facilities or markings along the segment adjacent to the proposed venue. The Eastbank Esplanade also provides bicyclists an off-street connection between the Steel Bridge and SE Caruthers Street (just south of the Tilikum Crossing), and to the multi-use path crossings to the west side of the Willamette River on the Tilikum Crossing, Hawthorne Bridge, Morrison Bridge and Steel Bridge. These are all regional commuting and recreational routes for bicyclists and there are high bicycle volumes observed on each.

EXISTING TRANSIT FACILITIES

All streets near the proposed venue are designated as Local Service Transit Streets (see Table 1). The closest designated Major Transit Priority streets to the proposed venue include the SE Morrison Street and SE Belmont Street viaducts to the north, SE Madison Street and SE Hawthorne Boulevard viaducts to the south, and SE Grand Avenue and SE Martin Luther King Jr Boulevard to the east.

Transit service is provided near the proposed venue by the Portland Streetcar- A and B Loop and TriMet Route 6 – Martin Luther King Jr Blvd, Route 10 – Harold St, Route 14 – Hawthorne, and Route 15 – Belmont/NW 23rd. All of these transit options are within a 10-minute walk from the proposed venue.

The Portland Streetcar- A and B Loop, connects riders to the Pearl District, Lloyd District and Portland State University, with stops near the proposed venue on SE Grand Avenue and SE Martin Luther King Jr Boulevard between SE Salmon Street and SE Taylor Street. The A Loop runs clockwise while the B Loop runs counterclockwise, with service every 20 minutes, most of the day, every day. Existing streetcar service near the proposed venue begins around 7:30 a.m. on weekdays and weekends and ends around 10:30 p.m. on weekdays and 10:00 p.m. on weekends.

Stops for TriMet Routes 6, 10 and 14 are located on the SE Madison Street and SE Hawthorne Boulevard viaducts (accessed via stairs from SE Water Avenue). TriMet Route 6 provides bus service every 15 minutes for most of the day, every day between downtown Portland and Jantzen Beach. TriMet Routes 10 and 14 provides bus service between downtown Portland and the Lents neighborhood. Route 14 provides bus service every 15 minutes for most of the day, every day while Route 10 provides bus service about every 45 minutes between 6:00 a.m. and 8:00 p.m. on weekdays, between 10:00 a.m. and 6:00 p.m. on weekends.

Stops for TriMet Route 15 are located on the SE Morrison Street and SE Belmont Street viaducts (accessed via stairs from SE Water Avenue), with service between NW 23rd Avenue, downtown Portland, and the Gateway Transit Center. Service is offered every 15 minutes for most of the day, every day.

The MAX Blue and Red Lines also have stops along SW 1st Avenue in downtown Portland across the Morrison Bridge, and the MAX Orange Line has a stop near SE Tilikum Way. These stops are within a 15 to 20-minute walk from the proposed venue. The MAX provides service every 15 minutes for most of the day, every day. All of these routes provide transfer opportunities to other MAX light-rail and TriMet bus routes in downtown Portland along the 5th and 6th Avenue transit mall.

SAFETY ANALYSIS

The most recent five years of available collision data at the study intersections was obtained from ODOT and used to evaluate the collision history[4]. There were 66 crashes recorded at the study intersections over the five-year period (see Table 4), with the most crashes occurring at the SE Stark Street/SE Grand Avenue and SE Stark Street/SE Martin Luther King Jr Boulevard intersections.

There were no fatalities at the study intersections over the five-year period, although 30 of the crashes resulted in an injury. There were seven crashes involving people walking or biking at the study intersections, including three at the SE Stark Street/SE Grand Avenue intersection, two at the SE Water Avenue/SE Hawthorne Boulevard intersection and one at the SE Water Avenue/SE Morrison Bridge Off Ramp and SE Water Avenue/SE Salmon Street intersections.

The most common collision types that occurred at the study intersections were angle, turning and rear-end crashes, with many of these occurring at the SE Stark Street/SE Grand Avenue and SE Stark Street/SE Martin Luther King Jr Boulevard signalized intersections. Many of these crashes show "no yield" or "disregarded traffic signal" as the cited cause.

There were five turning crashes at the SE Water Avenue/SE Hawthorne Boulevard intersection, possible due to the intersection skew and four rear-end crashes at the I-84 off-ramp intersection with SE Water Avenue, potentially related to queuing on the off-ramp.

[4] ODOT reported collisions for January 1, 2016, through December 31, 2020.

TABLE 4: SUMMARY OF COLLISIONS AT STUDY INTERSECTIONS

STUDY INTERSECTION	TOTAL COLLISIONS	COLLISION TYPE				COLLISION SEVERITY			COLLISION FLAG	
		ANGLE	REAR-END	TURNING	OTHER	FATAL	INJURY	PDO *	PED	BIKE
SE WATER AVENUE/SE MORRISON BRIDGE OFF RAMP	**1**	0	0	0	1	0	1	0	1	0
SE WATER AVENUE & I-5 OFF RAMP/SE YAMHILL STREET	**11**	3	4	0	4	0	5	6	0	0
SE WATER AVENUE/SE SALMON STREET	**6**	3	1	1	1	0	4	2	0	1
SE WATER AVENUE/SE MAIN STREET	**2**	1	1	0	0	0	1	1	0	0
SE WATER AVENUE/SE HAWTHORNE BOULEVARD	**8**	0	2	5	1	0	4	4	1	1
SE WATER AVENUE/SE CLAY STREET	**2**	0	1	0	1	0	0	2	0	0
SE STARK STREET/SE MARTIN LUTHER KING JR BOULEVARD	**16**	1	6	5	4	0	5	11	0	0
SE STARK STREET/SE GRAND AVENUE	**20**	4	3	6	7	0	10	10	1	2
TOTAL	**66**	**12**	**18**	**17**	**19**	**0**	**30**	**36**	**3**	**4**

Source: ODOT Crash Analysis and Reporting Unit. Reported collision data from 2016 to 2020.

* PDO = Property Damage Only

In addition, the Union Pacific study rail crossings along the segment between SE Stark Street and SE Clay Street also had three reported incidents in the past five years, two in 2020 and one in 2022, two at the SE Salmon Street and one at the SE Clay Street crossings (see Table 5). Each of these incidents included a train striking a pedestrian, with two resulting in a fatality and one resulting in an injury.

TABLE 5: SUMMARY OF COLLISIONS AT STUDY RAIL CROSSINGS

STUDY RAIL CROSSING	TOTAL COLLISIONS	COLLISION SEVERITY		COLLISION FLAG	
		FATAL	INJURY	PED	BIKE
SE STARK STREET (754542S)	**0**	0	0	0	0
SE YAMHILL STREET (754550J)	**0**	0	0	0	0
SE SALMON STREET (754552X)	**2**	1	1	2	0
SE MAIN ST (754553E)	**0**	0	0	0	0
SE CLAY STREET (754559V)	**1**	1	0	1	0
TOTAL	**3**	**2**	**1**	**3**	**0**

Source: Crossing Accident Report, U.S. Department of Transportation, Federal Railroad Administration. Reported collision data from 2018 to 2022.

Crash rates provide an additional perspective on intersection safety and identify locations where people have a higher risk of being involved in a crash. Crash frequencies (the number of crashes in a period of time) tend to increase with higher vehicle traffic. With more exposure to vehicles, there are more opportunities for crashes to occur. Crash rates consider the number of crashes relative to the traffic volume at the intersection and are expressed in units of crashes per million entering vehicles.

Crash rates (crashes per million entering vehicles) for the study intersections were calculated and evaluated using the critical crash rate method from the Highway Safety Manual. The critical crash rate method compares an intersection's crash history to that of other similar intersections, adjusting for volume at the intersection. Where an intersection's crash rate is greater than the critical crash rate, it is an indication that a problem might exist, and that further study is warranted.

As shown in Table 6, crash rates calculated at most study intersections are well below this threshold, indicating the frequency of collisions is typical for the volume of traffic served. The exceptions are the SE Water Avenue intersections with I-5 Off Ramp/SE Yamhill Street, SE Salmon Street and SE Hawthorne Boulevard. A summary of these intersections is provided below.

- **SE Water Avenue/I-5 Off Ramp/SE Yamhill Street:** this is a 4-leg intersection with all way stop control. Most of the collisions were angle/rear end type (7 of the 11 total collisions). Four of the collisions were caused by drivers failing to yield or passing the stop sign, four were caused by drivers running into stopped vehicles, two were caused by improper lane changes and one was caused by a speeding vehicle.
- **SE Water Avenue/SE Salmon Street:** this is a 4-leg intersection with stop control of the side street approaches. Most of the collisions were angle/rear end type (4 of the 6 total collisions).

Three of the collisions were caused by drivers failing to yield or passing the stop sign, two were caused by drivers running into a stopped or parked vehicle, and one was caused by a bike passing the stop sign.

- **SE Water Avenue/SE Hawthorne Boulevard:** this is a 3-leg intersection with stop control of the side street approach. Most of the collisions were turn type (5 of the 8 total collisions). Four of the collisions were caused by drivers failing to yield, including one to a pedestrian and one to a bike, two were caused by drivers running into stopped vehicles, and two were caused by vehicles going the wrong way or making improper turns.

TABLE 6: STUDY INTERSECTION COLLISION ANALYSIS

STUDY INTERSECTION	TOTAL COLLISIONS	OBSERVED CRASH RATE (PER MEV)	CRITICAL CRASH RATE (PER MEV)	OVER CRITICAL CRASH RATE
SE WATER AVENUE/SE MORRISON BRIDGE OFF RAMP	**1**	0.08	0.29	No
SE WATER AVENUE & I-5 OFF RAMP/SE YAMHILL STREET	**11**	0.53	0.41	**Yes**
SE WATER AVENUE/SE SALMON STREET	**6**	0.62	0.41	**Yes**
SE WATER AVENUE/SE MAIN STREET	**2**	0.21	0.41	No
SE WATER AVENUE/SE HAWTHORNE BOULEVARD	**8**	0.64	0.29	**Yes**
SE WATER AVENUE/SE CLAY STREET	**2**	0.20	0.51	No
SE STARK STREET/SE MARTIN LUTHER KING JR BOULEVARD	**16**	0.33	0.51	No
SE STARK STREET/SE GRAND AVENUE	**20**	0.31	0.51	No

EXISTING YEAR CAPACITY ANALYSIS

This section will summarize the existing year intersection operations at the eight study intersections using Highway Capacity Manual (HCM) 6th edition methodology.

EXISTING MOTOR VEHICLE VOLUMES

To determine intersection operations, turn movement count data was obtained[5] for the study intersections during the weekday and weekend pre-event period (6 p.m. to 8 p.m.) and post-event period (10:00 p.m. to 12:00 a.m.). Traffic volumes at the five at-grade railroad crossings were estimated based on available count data at the adjacent study intersections.

Based on programming information provided by the venue operator, a system peak hour was established for the pre-event period from 7:00 – 8:00 p.m. and post-event period from 11:00 p.m. – 12:00 a.m. Existing year volumes were balanced between adjacent intersections once the system peak was established.

DAILY MOTOR VEHICLE VOLUMES

Daily motor vehicle count data was also collected adjacent to the proposed venue along SE Water Avenue, south of SE Salmon Street and north of SE Main Street[6]. The count data indicates that approximately 4,900 vehicles pass the proposed venue along SE Water Avenue during an average weekday. Of these vehicles, 1,300 travel northbound and 3,600 travel southbound. The highest number of trips along SE Water Avenue occurs from 5:00 – 6:00 p.m., with 488 vehicles passing the proposed venue (157 northbound and 331 southbound). During the pre-event and post-event peak hours, 165 and 35 vehicles pass the proposed venue along SE Water Avenue, respectively. Five percent of the traffic along SE Water Avenue is trucks.

EXISTING INTERSECTION OPERATIONS

This section discusses the existing conditions for motor vehicles at the study intersections, including an analysis of traffic operations.

Intersection Performance Measures

Level of service (LOS) ratings and volume-to-capacity (v/c) ratios are two commonly used performance measures that provide a good picture of intersection operations. Agencies often incorporate these performance measures into their mobility standards. Descriptions are given below:

- **Level of service (LOS):** A "report card" rating (A through F) based on the average delay experienced by vehicles at the intersection. LOS A, B, and C indicate conditions where traffic

[5] Count data collected in July 2023.

[6] Based on tube counts conducted July 13th to 14th, 2023.

moves without significant delays over periods of peak hours travel demand. LOS D and E are progressively worse operation conditions. LOS F represents conditions where average vehicle delay has become excessive, and demand has exceeded capacity.

- **Volume-to-capacity (v/c) ratio:** A decimal representation (typically between 0.00 and 1.00) of the proportion of capacity that is being used at a turn movement, approach leg, or intersection. It is determined by dividing the peak hour traffic volume by the hourly capacity of a given intersection or movement. A lower ratio indicates smooth operations and minimal delays. As the ratio approaches 1.00 (generally above 0.70), congestion noticeably increases, and performance is reduced. If the ratio is greater than 1.00, the turn movement, approach leg, or intersection is oversaturated and usually results in excessive queues and long delays.

Jurisdictional Mobility Targets

The mobility targets for the study intersections vary according to the agency of jurisdiction for each roadway. Seven of the study intersections are under City of Portland jurisdiction and one is under ODOT jurisdiction.

ODOT requires a v/c ratio of 0.85 to be maintained at interchange ramp terminals[7], including the SE Water Avenue intersection with the I-84 off-ramp.

For streets designated on the Metro Regional Transportation Plan Arterial and Throughway Network, local Transportation System Plans are required to adopt the regional targets or alternative targets that are no lower than those adopted by the region[8]. The only study intersections along designated streets are the SE Stark Street/SE Grand Avenue and SE Stark Street/SE Martin Luther King Jr Boulevard intersections. Metro and the City of Portland standards require a v/c ratio of 1.10 or less be maintained in the first peak hour and a v/c ratio of 0.99 or less be maintained for the hour before or after the peak hour at these intersections in the Central City of Portland[9]. For this analysis, a v/c ratio of 0.99 will be assumed at these intersections.

For City study intersections along SE Water Avenue not designated on the Metro Regional Transportation Plan Arterial and Throughway Network, the City of Portland standards require a LOS "D" or better to be maintained for signalized intersections and a LOS "E" or better for intersections with stop control[10].

Existing Operating Conditions

Motor vehicle conditions were evaluated during the weekday and weekend pre-event and post event peak hours at the study intersections (see Table 7) using the *Highway Capacity Manual, 6th Edition* (HCM)[11] methodologies. Since HCM 6th edition methodologies were used, manual

[7] Oregon Highway Plan, Policy 1F, Action 1F.1. Updates through May 2015.

[8] Metro Regional Transportation Functional Plan, Section 3.08.230, Subsection A and B, Performance Targets and Standards

[9] Portland 2035 Transportation System Plan, Policy 9.49.k. Table 9-2. March 2020.

[10] Portland 2035 Transportation System Plan, Policy 9.49.j. March 2020. Standards provided in TRN-10.27.

[11] Highway Capacity Manual, 6th Edition, Transportation Research Board, 2016.

calculations outside of Synchro software were required based on the ODOT Analysis Procedures Manual to obtain intersection v/c ratios at signalized intersections. These calculations and Synchro reports can be found in the appendix.

As shown in Table 7, all study intersections meet the current mobility targets during the weekday and weekend pre-event and post event peak hours. All intersections along SE Water Avenue operate with a LOS B or better and with a v/c of 0.43 or less, while the signalized intersections at SE Stark Street/SE Grand Avenue and SE Stark Street/SE Martin Luther King Jr Boulevard operate with a LOS C or better and with a v/c of 0.47 or better, well below the current mobility targets.

TABLE 7: EXISTING 2023 STUDY INTERSECTION OPERATIONS

STUDY INTERSECTION	TRAFFIC CONTROL	MOBILITY TARGET	PRE-EVENT PEAK HOUR (7-8 P.M.)			POST-EVENT PEAK HOUR (11 P.M. -12 A.M.)		
			LOS	DELAY	V/C	LOS	DELAY	V/C
WEEKDAY								
SE WATER AVENUE/SE MORRISON BRIDGE OFF RAMP	Two-Way Stop Control	LOS E	A/A	0/9	0.17/0.04	A/A	0/9	0.04/0.02
SE WATER AVENUE & I-5 OFF RAMP/SE YAMHILL STREET	All-Way Stop Control	0.85 v/c	B	11	0.41	A	8	0.09
SE WATER AVENUE/SE SALMON STREET	Two-Way Stop Control	LOS E	A/A	8/10	0.09/0.02	A/A	7/9	0.03/0.01
SE WATER AVENUE/SE MAIN STREET	Two-Way Stop Control	LOS E	A/A	7/10	0.09/0.04	A/A	7/9	0.03/0.01
SE WATER AVENUE/SE HAWTHORNE BOULEVARD	Two-Way Stop Control	LOS E	A/B	8/10	0.03/0.03	A/A	7/0	0.02/0.00
SE WATER AVENUE/SE CLAY STREET	Traffic Signal	LOS D	A	4	0.10	A	4	0.02
SE STARK STREET/SE MARTIN LUTHER KING JR BOULEVARD	Traffic Signal	0.99 v/c	C	23	0.44	B	18	0.18
SE STARK STREET/SE GRAND AVENUE	Traffic Signal	0.99 v/c	B	12	0.40	A	9	0.15
WEEKEND								
SE WATER AVENUE/SE MORRISON BRIDGE OFF RAMP	Two-Way Stop Control	LOS E	A/A	0/9	0.17/0.04	A/A	0/9	0.07/0.03
SE WATER AVENUE & I-5 OFF RAMP/SE YAMHILL STREET	All-Way Stop Control	0.85 v/c	B	12	0.43	A	9	0.22

STUDY INTERSECTION	TRAFFIC CONTROL	MOBILITY TARGET	PRE-EVENT PEAK HOUR (7-8 P.M.)			POST-EVENT PEAK HOUR (11 P.M. -12 A.M.)		
			LOS	DELAY	V/C	LOS	DELAY	V/C
SE WATER AVENUE/SE SALMON STREET	Two-Way Stop Control	LOS E	A/B	8/10	0.03/0.02	A/A	7/9	0.02/0.03
SE WATER AVENUE/SE MAIN STREET	Two-Way Stop Control	LOS E	A/B	8/11	0.03/0.02	A/A	7/10	0.02/0.02
SE WATER AVENUE/SE HAWTHORNE BOULEVARD	Two-Way Stop Control	LOS E	A/B	8/10	0.03/0.02	A/A	7/9	0.02/0.01
SE WATER AVENUE/SE CLAY STREET	Traffic Signal	LOS D	A	4	0.14	A	4	0.06
SE STARK STREET/SE MARTIN LUTHER KING JR BOULEVARD	Traffic Signal	0.99 v/c	B	12	0.47	A	10	0.28
SE STARK STREET/SE GRAND AVENUE	Traffic Signal	0.99 v/c	B	12	0.38	B	12	0.29

Note: Intersection operations are reported for the entire intersection at traffic signals and all-way stop intersections, and for the worst major street movement/worst minor street movement at two-way stop control intersections.

Existing Freight Train Delay and Queuing

At-grade crossings are available on all streets between SE Stark Street and SE Clay Street. Train switching along this rail line coupled with the long train lengths block the at-grade road, pedestrian, and bikeway crossings at times during the day, making it difficult for people to get around them and creating long delays for people. Vehicle queues during these blockages spill back from the at-grade crossings onto SE Water Avenue, and onto side streets, most notably the I-84 Off-Ramp at SE Yamhill Street. Improvement strategies for this existing issue are discussed later in this document.

FUTURE 2025 NO BUILD TRANSPORTATION CONDITIONS

This section summarizes Future Year 2025 No Build conditions and identifies how transportation facilities will function in the future without the proposed venue. The future year of 2025 is used for the future horizon when the site is assumed to be fully developed.

PLANNED TRANSPORTATION SYSTEM IMPROVEMENTS

A list of planned transportation system improvement projects located near the project site or at study intersections contained in the Portland Transportation System Plan[12] is provided below. While these projects represent previously identified needs and are expected to be funded through the horizon of the TSP (i.e., are identified as financially constrained), they were not used in the 2025 no build traffic forecasts for the proposed venue since they are not likely to be fully funded and constructed by that time. These previously planned improvements include:

- **SE Water Avenue Corridor Improvements (Financially Constrained TSP Project ID 20075):** Remove rails from roadway, repair pavement, build sidewalks, and enhance existing bikeway to include a two-way cycle track from SE Stark Street to SE Clay Street. Two-way cycle track included as part of Project 14 in the Central City in Motion Implementation Plan[13].
- **SE Yamhill/SE Taylor Couplet (Financially Constrained TSP Project ID 20184):** Improve traffic safety and capacity by converting Yamhill Street and Taylor Street to couplet operation between Water Avenue and Grand Avenue, including new traffic signal at SE Taylor Street/SE Water Avenue.
- **SE Yamhill/SE Water Traffic Improvements (Financially Constrained TSP Project ID 20187; Transportation System Development Charge Project ID 20187)**: Install signal at Yamhill Street/Water Avenue intersection with turn lane and queue detection treatments on the I-84 NB exit ramp to reduce queue length and/or provide advanced warning sign of queue on the exit ramp. This project is also included on the Citywide Transportation System Development Charge (TSDC) project list at 100 percent eligible (TSDC Project ID 20187).
- **Central Eastside Access and Circulation Enhancement Project (Financially Constrained TSP Project ID 20205):** Improve access and circulation in the Central Eastside by adding new signals and crossings at Hawthorne & Clay ramp, Salmon & Grand, Salmon & MLK, Washington & Grand, Washington & MLK, Ankeny & MLK, Ankeny & Sandy, 16th & Irving, modifying signals at Stark & Grand, Clay & Grand, Mill & MLK, and reconstructing SE Clay St from Water to Grand. This project is also included on the Citywide Transportation System Development Charge (TSDC) project list at 46 percent eligible (TSDC Project ID 20205).
- **SE Stark/Washington Safety and Access Improvements (Financially Constrained TSP Project ID 20073):** Improve freight and bicycle connectivity and mobility by reconfiguring traffic flow and turning movements on Stark and Washington Streets between Water and Sandy. Requires signals and/or crossings at Grand and MLK (see project 20205). Consider protected intersections at Sandy & Washington and Sandy & Stark during project design.

[12] Portland Transportation System Plan. March 2020.

[13] Central City in Motion, PBOT, July 2020.

- **SE Salmon Neighborhood Greenway Improvements (Financially Constrained TSP Project ID 20174):** Improve existing neighborhood greenway by installing improved crossings at 7th, 11th, and 12th. Once traffic signals are constructed at MLK/Grand (see project 20073), extend the Salmon neighborhood greenway from 7th to the Eastbank Esplanade. Project is included as part of Project 9 in the Central City in Motion Implementation Plan[14].

BACKGROUND MOTOR VEHICLE VOLUME GROWTH

Background traffic volume growth (i.e., growth that is not associated with the proposed venue) through 2025 was estimated using annual growth rates. These growth rates were estimated based on the volume growth in the 2015 and 2040 Metro travel demand models.

Along SE Water Avenue adjacent to the project site, the average annual growth rate from 2015 to 2040 was estimated to be 0.5 percent per year. This growth rate will be applied to the six study intersections along SE Water Avenue (i.e., at the SE Morrison Bridge Off Ramp, I-5 Off Ramp/SE Yamhill Street, SE Salmon Street, SE Main Street, SE Hawthorne Boulevard and SE Clay Street intersections).

A separate growth rate calculation was performed for the SE Stark Street/SE Grand Avenue and SE Stark Street/SE Martin Luther King Jr Boulevard study intersections further away from the proposed venue. The estimated average growth rate from the travel demand models was approximately 0.25 percent per year at these intersections. These growth rates will be applied between 2023 and 2025 to represent background traffic growth for the horizon year at study intersections.

The approved Oregon Museum of Science and Industry (OMSI) Central City Master Plan will also be expected to add trips to study intersections. These approved trips were adjusted to represent only growth between 2023 and 2025 for the weekday and weekend pre-event and post-event peak hours and distributed to the study intersections[15]. There are no other major approved or in-process developments near the proposed venue that would add significant trips to the study area streets and intersections.

[14] Central City in Motion, PBOT, July 2020.

[15] OMSI includes 1,379 approved p.m. peak hour trips (i.e., 478 inbound and 901 outbound) through the year 2040. These trips were adjusted linearly to represent only growth between 2023 and 2025, which is estimated to be 162 of the approved p.m. peak hour trips (i.e., 56 inbound and 106 outbound). Count data was utilized to determine the ratio of the weekday p.m. peak hour volumes to the weekday pre-event and post-event peak hour volumes, and weekday pre-event and post-event peak hour volumes to weekend pre-event and post-event peak hour volumes. These ratios were applied to the adjusted approved OMSI p.m. peak hour trips to create estimates for the missing periods.

FUTURE 2025 NO BUILD INTERSECTION OPERATIONS

No changes were applied at study intersections to account for the previously identified planned improvements near the proposed venue since they are not likely to be fully funded and constructed by 2025. All study intersection configurations remain the same as Existing Conditions.

Table 8 shows the future 2025 intersection operations at study intersections, without the proposed venue. As shown, all study intersections are expected to continue to meet mobility targets, with most experiencing very little background traffic growth through 2025. However, the v/c ratios are expected to increase up to 3 percent during the peak hours by 2025 at the SE Water Avenue/SE Clay Street intersection closest to the OMSI Central City Master Plan area. Detailed intersection operations calculation worksheets are included in the Appendix.

TABLE 8: FUTURE NO-BUILD 2025 STUDY INTERSECTION OPERATIONS

STUDY INTERSECTION	TRAFFIC CONTROL	MOBILITY TARGET	PRE-EVENT PEAK HOUR (7-8 P.M.)			POST-EVENT PEAK HOUR (11 P.M. -12 A.M.)		
			LOS	DELAY	V/C	LOS	DELAY	V/C
WEEKDAY								
SE WATER AVENUE/SE MORRISON BRIDGE OFF RAMP	Two-Way Stop Control	LOS E	A/A	0/9	0.17/0.04	A/A	0/9	0.04/0.02
SE WATER AVENUE & I-5 OFF RAMP/SE YAMHILL STREET	All-Way Stop Control	0.85 v/c	B	11	0.41	A	8	0.09
SE WATER AVENUE/SE SALMON STREET	Two-Way Stop Control	LOS E	A/A	8/10	0.09/0.02	A/A	7/9	0.03/0.01
SE WATER AVENUE/SE MAIN STREET	Two-Way Stop Control	LOS E	A/B	7/10	0.10/0.05	A/A	7/9	0.03/0.01
SE WATER AVENUE/SE HAWTHORNE BOULEVARD	Two-Way Stop Control	LOS E	A/B	8/10	0.03/0.03	A/A	7/0	0.02/0.00
SE WATER AVENUE/SE CLAY STREET	Traffic Signal	LOS D	A	4	0.12	A	4	0.02
SE STARK STREET/SE MARTIN LUTHER KING JR BOULEVARD	Traffic Signal	0.99 v/c	C	23	0.44	B	18	0.18
SE STARK STREET/SE GRAND AVENUE	Traffic Signal	0.99 v/c	B	12	0.41	A	9	0.15
WEEKEND								
SE WATER AVENUE/SE MORRISON BRIDGE OFF RAMP	Two-Way Stop Control	LOS E	A/A	0/9	0.17/0.04	A/A	0/9	0.07/0.03
SE WATER AVENUE & I-5 OFF RAMP/SE YAMHILL STREET	All-Way Stop Control	0.85 v/c	B	12	0.43	A	9	0.22

STUDY INTERSECTION	TRAFFIC CONTROL	MOBILITY TARGET	PRE-EVENT PEAK HOUR (7-8 P.M.)			POST-EVENT PEAK HOUR (11 P.M. -12 A.M.)		
			LOS	DELAY	V/C	LOS	DELAY	V/C
SE WATER AVENUE/SE SALMON STREET	Two-Way Stop Control	LOS E	A/B	8/10	0.03/0.02	A/A	7/10	0.02/0.02
SE WATER AVENUE/SE MAIN STREET	Two-Way Stop Control	LOS E	A/B	8/11	0.03/0.02	A/A	7/10	0.02/0.02
SE WATER AVENUE/SE HAWTHORNE BOULEVARD	Two-Way Stop Control	LOS E	A/B	8/11	0.04/0.02	A/A	7/9	0.02/0.01
SE WATER AVENUE/SE CLAY STREET	Traffic Signal	LOS D	A	3	0.17	A	4	0.07
SE STARK STREET/SE MARTIN LUTHER KING JR BOULEVARD	Traffic Signal	0.99 v/c	B	12	0.48	A	10	0.28
SE STARK STREET/SE GRAND AVENUE	Traffic Signal	0.99 v/c	B	12	0.39	B	12	0.29

Note: Intersection operations are reported for the entire intersection at traffic signals and all-way stop intersections, and for the worst major street movement/worst minor street movement at two-way stop control intersections.

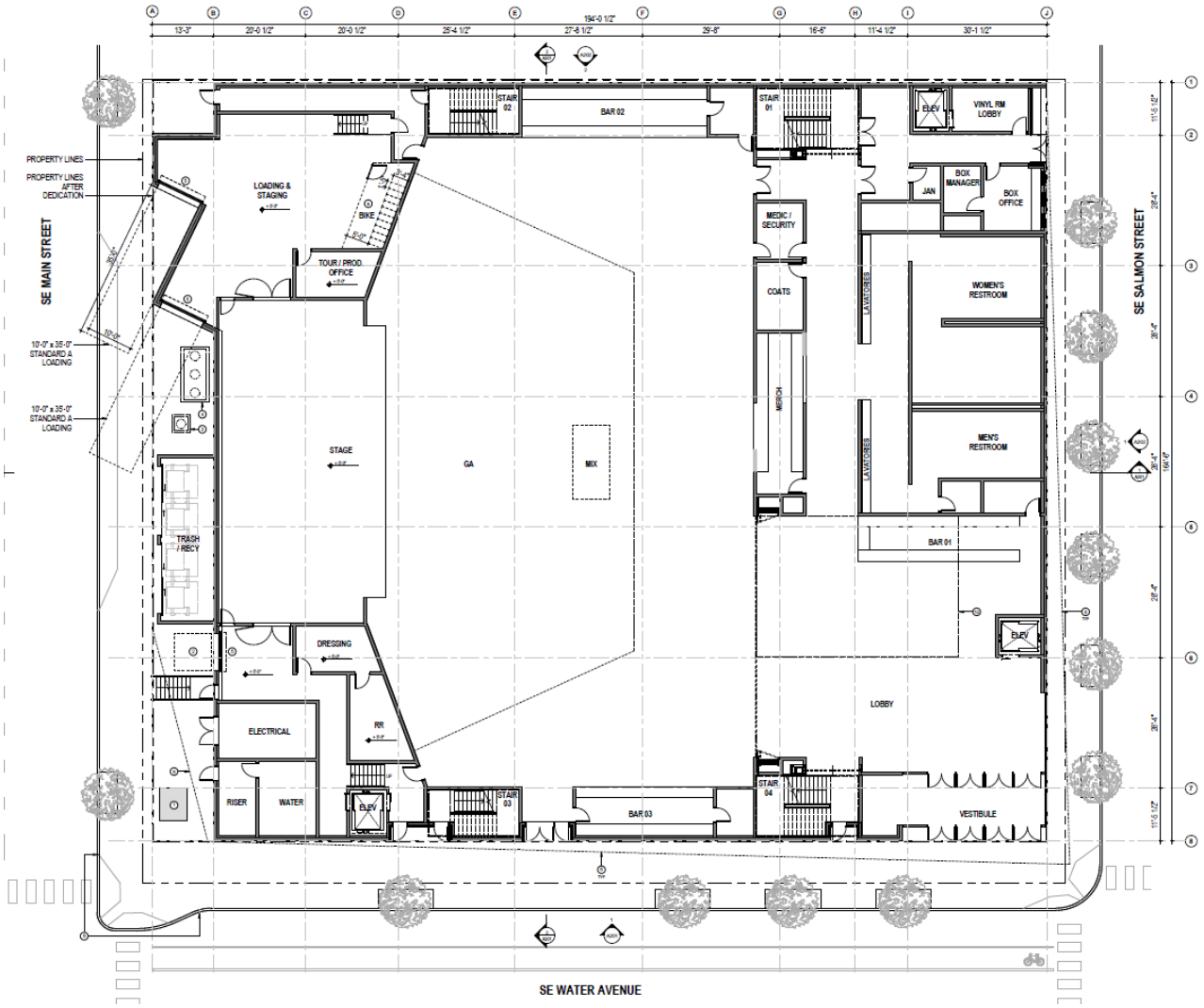
PROPOSED NEW DEVELOPMENT

This section outlines key assumptions and methodologies that will be used to analyze future 2025 build conditions and identify any potential impacts at study intersections triggered by the proposed venue.

PROPOSED VENUE

The proposed venue, shown in Figure 2, will consist of a new event venue with a capacity of 3,500 spectators, hosting concerts and other special events. The proposed use is Major Event Entertainment, which is a conditional use in the IG1 zone. The proposed building area will be approximately 59,000 gross square feet distributed over three stories. No vehicle parking is currently planned on site.

FIGURE 2: PROPOSED VENUE SITE PLAN



TRIP GENERATION

The estimated trips generated by the proposed venue will be based on programming information provided by the venue operator. The following assumptions are proposed to be used to generate vehicle trips from the proposed venue.

EVENT CHARACTERISTICS

According to the venue operator, the proposed venue will host 110 concerts and 18 special events per year, for an estimated total of 128 events annually (see Table 9). The proposed venue will have a maximum attendance capacity of 3,500 people. Of the 110 concerts at the venue, an estimated 45 will sell to the maximum capacity. The typical (i.e., average) attendance for concerts and special events will be 2,100 (i.e., assumed to be 60 percent of the maximum capacity) and 500 people, respectively.

Sold-out concerts require up to 350 employees, including 150 venue staff (i.e., 140 staff directly involved in the venue operation and 10 management staff), and up to 200 non-venue employees (e.g., staff of the artist's touring group, food and beverage staff, etc.). The average concert requires up to 250 employees, including 130 venue employees, and as many as 120 non-venue employees.

Events are primarily anticipated to occur during the weekday and weekend evening hours. Typically, the doors for concerts will open at 7:00 p.m. and the show will start at approximately 8:00 p.m. and conclude at approximately 11:00 p.m. or later.

TABLE 9: EVENT CHARACTERISTICS OF PROPOSED VENUE

EVENT TYPE	TOTAL EVENTS	ATTENDANCE	WEEKDAY DAYTIME	WEEKDAY EVENING	WEEKEND EVENING
CONCERTS	**110**	2,100 (average) 3,500 (maximum)		X	X
SPECIAL EVENT	**18**	500	X	X	X
TYPICAL CONCERT SCHEDULE					
7:00 P.M.	Doors open to the venue				
8:00 P.M.	Concert begins (opening act)				
11:00 P.M.	Concert ends				

Source: Venue Operator, 2023

TOTAL TRIPS GENERATED BY SOLD-OUT EVENTS

The total estimated trips generated by the proposed venue during sold-out events (i.e., 3,500 attendees and 350 employees) are shown in Table 10. As shown, the proposed venue is expected to generate 1,935 pre-event peak trips and 2,975 post-event peak trips.

Pre-event peak hour attendee arrivals are estimated at 55 percent of total attendee arrivals (i.e., 1,925 attendees for a sold-out event), while post-event peak hour attendee departures are estimated at 83 percent of total attendee departures (i.e., 2,905 attendees for a sold-out event)[16].

Employee arrival and departure estimates are based on typical schedules provided by the venue operator. Venue operation staff typically arrive by 6:00 p.m. for evening events (i.e., before the pre-event peak hour) and work 5-to-6-hour shifts, departing after 11:00 p.m., with post-event peak hour departures estimated at 50 percent of total venue operation employee departures (i.e., 70 of the 140 venue operation employees for a sold-out event). Venue management staff work daily from 10:00 a.m. to 7:00 p.m., with all 10-management staff departing during the pre-event peak hour. All non-venue employees (i.e., 200 employees for a sold-out event) are assumed to arrive and depart outside of the pre-event and post-event peak hours.

TABLE 10: PEAK HOUR TRIPS FOR SOLD-OUT EVENTS

TRAVELER TYPE	PRE-EVENT PEAK HOUR (7-8 P.M.)			POST-EVENT PEAK HOUR (11 P.M. -12 A.M.)		
	IN	OUT	TOTAL	IN	OUT	TOTAL
ATTENDEES	1,925	0	1,925	0	2,905	2,905
EMPLOYEES	0	10	10	0	70	70
TOTAL	**1,925**	**10**	**1,935**	**0**	**2,975**	**2,975**

Source: Attendee arrival and departure information based on similar venues owned by the operator. Employee arrival and departure information based on typical schedules provided by the venue operator.

[16] Based on information provided by the venue operator from similar venues.

Mode Choice of Trips

Due to the proposed venue's location in the Central City, and proximity to multiple transit lines and high-quality pedestrian and bicycle facilities, 20 percent of the trips generated by the proposed venue were assumed to occur via transit (13 percent), walking (2 percent) or biking or e-scooter (5 percent), with the remaining 80 percent using private vehicles (50 percent) or ride hailing vehicles (30 percent). These mode choice estimates were based on data from similar event venues and assumptions utilized for OMSI Central City Master Plan[17]. Given the typical event will occur in the evening and conclude at approximately 11:00 p.m. or later, more of the trips are assumed to occur via private and ride hailing vehicles compared to assumptions utilized for the OMSI Central City Master Plan (i.e., 80 percent compared to 63 percent of the total trips), while fewer trips were assumed to occur via walking, biking or e-scooter (7 percent compared to 24 percent of the total trips). No adjustments were made to the assumed transit usage (i.e., 13 percent of the total trips).

As shown in Table 11, the proposed venue is estimated to generate 1,318 pre-event peak and 2,054 post-event peak trips, including 387 pre-event peak and 595 post-event peak transit, walking, biking, or e-scooter trips, and 931 pre-event peak and 1,459 post-event peak motor vehicle trips.

[17] Based on mode splits provided by the venue operator from similar event venues in Sacramento, California and Philadelphia, Pennsylvania, and modeling data provided by PBOT and resulting mode splits utilized for the OMSI Central City Master Plan. The OMSI Central City Master Plan assumed 63 percent of the total trips occur via private and ride hailing vehicles, while the estimates at similar event venues assume between 85 and 91 percent of the total trips occur via these modes. Transit ridership is assumed as 13 percent of the OMSI trips and up to 12 percent of the similar venue trips, while walking and biking were assumed as 24 percent of the OMSI trips and up to 3 percent of the similar venue trips.

TABLE 11: PEAK HOUR TRIPS BY MODE FOR SOLD-OUT EVENTS

TRAVELER TYPE	PRE-EVENT PEAK HOUR (7-8 P.M.)			POST-EVENT PEAK HOUR (11 P.M. -12 A.M.)		
	IN	OUT	TOTAL	IN	OUT	TOTAL
TOTAL ATTENDEE TRIPS **	**1,055**	**251**	**1,306**	**379**	**1,591**	**1,970**
TRANSIT TRIPS (13 PERCENT)	*250*	*0*	*250*	*0*	*378*	*378*
WALKING TRIPS (2 PERCENT)	*39*	*0*	*39*	*0*	*58*	*58*
BIKING/E-SCOOTER TRIPS (5 PERCENT)	*96*	*0*	*96*	*0*	*145*	*145*
*PRIVATE VEHICLE TRIPS (50 PERCENT) **	*418*	*0*	*418*	*0*	*632*	*632*
*RIDE HAILING VEHICLE TRIPS (30 PERCENT) **	*251*	*251*	*502*	*379*	*379*	*758*
TOTAL EMPLOYEE TRIPS **	**3**	**9**	**12**	**19**	**65**	**84**
TRANSIT TRIPS (13 PERCENT)	*0*	*1*	*1*	*0*	*9*	*9*
WALKING TRIPS (2 PERCENT)	*0*	*0*	*0*	*0*	*1*	*1*
BIKING/E-SCOOTER TRIPS (5 PERCENT)	*0*	*1*	*1*	*0*	*4*	*4*
*PRIVATE VEHICLE TRIPS (50 PERCENT) **	*0*	*5*	*5*	*0*	*32*	*32*
*RIDE HAILING VEHICLE TRIPS (30 PERCENT) **	*3*	*3*	*5*	*19*	*19*	*38*
TOTAL TRIPS (ATTENDEE AND EMPLOYEE)	**1,057**	**260**	**1,318**	**398**	**1,656**	**2,054**
TRANSIT TRIPS (13 PERCENT)	*250*	*1*	*252*	*0*	*387*	*387*
WALKING TRIPS (2 PERCENT)	*39*	*0*	*39*	*0*	*60*	*60*
BIKING/E-SCOOTER TRIPS (5 PERCENT)	*96*	*1*	*97*	*0*	*149*	*149*
*PRIVATE VEHICLE TRIPS (50 PERCENT) **	*418*	*5*	*423*	*0*	*663*	*663*
*RIDE HAILING VEHICLE TRIPS (30 PERCENT) **	*254*	*254*	*508*	*398*	*398*	*796*

Notes: * Average vehicle occupancy was estimated at 2.3 persons per vehicle for attendees and 1.1 persons per vehicle for employees.

** Estimates derived from information provided by the venue operator.

TRIP DISTRIBUTION

The motor vehicle trips generated by the proposed venue were distributed to the off-site study intersections based on percentages shown in Table 12 and Figure 3. The trip distribution was estimated based on the 2040 p.m. peak Metro travel demand model, with some adjustments to account for local network detail. For trips to the proposed venue, it is estimated that 30 percent will come from the north on I-5 or SE Martin Luther King Jr Boulevard, 20 percent from the south via I-5, 15 percent from the west via the Hawthorne Bridge or the Morrison Bridge, 15 percent from the east via SE Stark Street, SE Morrison Street or SE Madison Street, and 20 percent from the south via OR 99E, SE Division Street or SE Powell Boulevard. For trips leaving the proposed venue, it is estimated that 30 percent leave to the north on I-5 or SE Grand Avenue, 35 percent to the west via the Hawthorne Bridge or the Morrison Bridge, 15 percent to the east via SE Stark Street, SE Morrison Street or SE Madison Street, and 20 percent to the south via OR 99E, SE Division Street or SE Powell Boulevard.

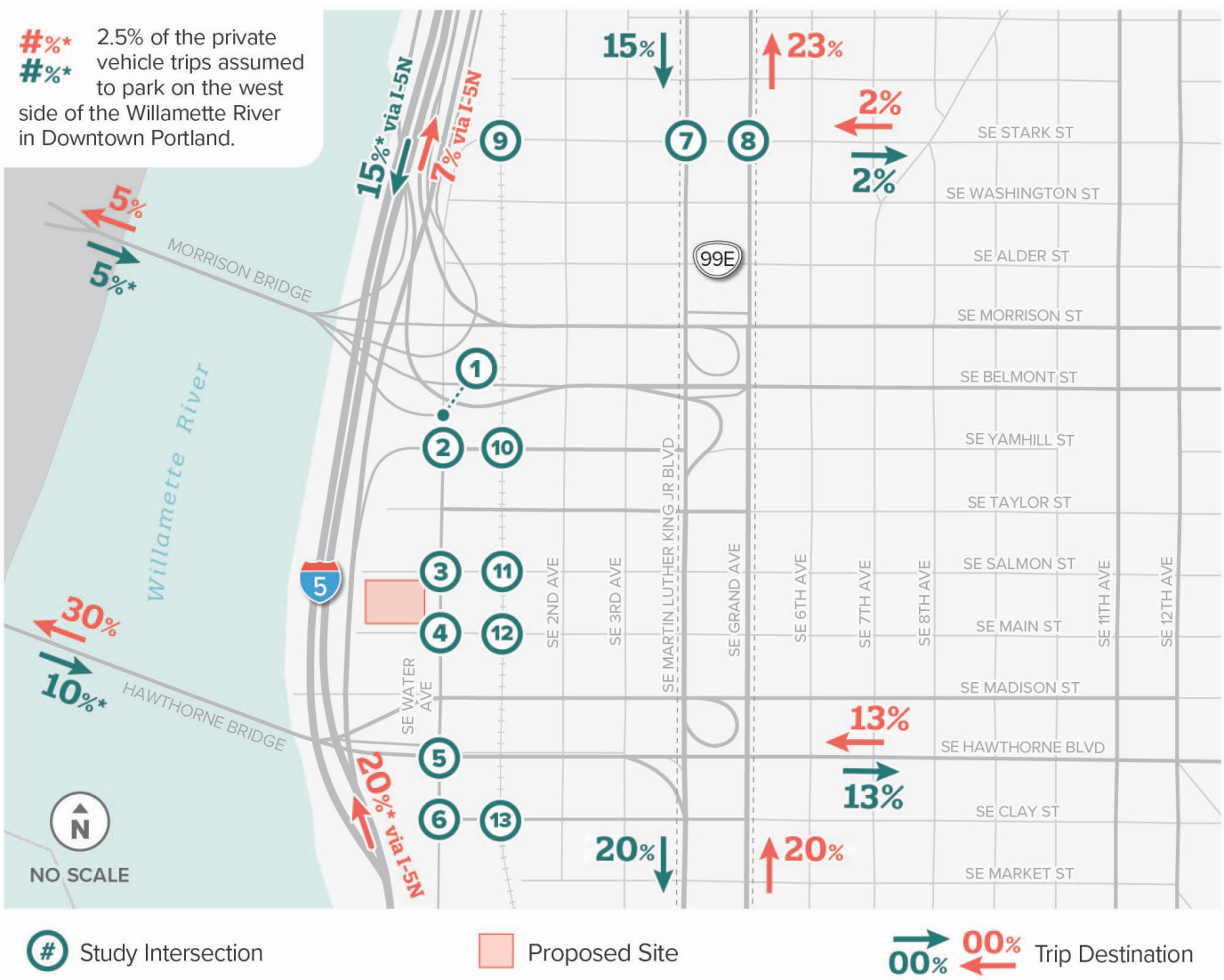
All of the peak hour ride hailing vehicle trips will begin or end at rider drop-off/pick-up points near the proposed venue. Private vehicle trips will begin or end at public parking locations, with 90 percent assumed to park on the east side of the Willamette River and 10 percent assumed to park on the west side of the Willamette River in Downtown Portland. Of the 10 percent of private vehicle trips parking on the west side, 5 percent are assumed to be trips to/from the north or south on I-5, and 5 percent from the west through Downtown Portland.

TABLE 12: TRIP DISTRIBUTION

ROUTE APPROACHING OR LEAVING THE PROPOSED VENUE	SHARE OF TRIPS TO PROPOSED VENUE	SHARE OF TRIPS LEAVING PROPOSED VENUE
NORTH (VIA SE MARTIN LUTHER KING JR BOULEVARD OR SE GRAND AVENUE)	15%	23%
NORTH (VIA I-5)	15%	7%
SOUTH (VIA I-5)	20%	0% *
WEST (VIA HAWTHORNE BRIDGE)	10%	30% *
WEST (VIA MORRISON BRIDGE)	5%	5%
EAST (VIA SE STARK STREET)	2%	2%
EAST (VIA OTHER STREET)	13%	13%
SOUTH (VIA OR 99E, SE DIVISION STREET OR SE POWELL BOULEVARD)	20%	20%
TOTAL	**100%**	**100%**

Notes: * Vehicles leaving the proposed venue have no direct access to southbound I-5 and are assumed to use the Hawthorne Bridge.

FIGURE 3: TRIP DISTRIBUTION



FUTURE 2025 BUILD CONDITIONS

This section summarizes Future Year 2025 Build conditions and identifies how transportation facilities will function in the future with the proposed venue. Included is a summary of future travel estimates, recommended on-site accommodations, and future build study intersection operational and queuing analysis.

FUTURE 2025 BUILD TRAVEL ESTIMATES

The following sections summarize the future 2025 Build travel estimates for motor vehicles, pedestrians, and bicycles, with the added trips from the proposed venue.

FUTURE 2025 BUILD MOTOR VEHICLE VOLUMES

The future 2025 build motor vehicle volumes consist of the existing traffic volumes and background traffic growth (see prior "Existing Motor Vehicle Volumes" and "Background Motor Vehicle Volume Growth" sections), with the added motor vehicle trips from the proposed venue (see prior "Trip Generation" section). The Existing, Future 2025 No Build, and Future 2025 Build motor vehicle volumes are summarized for pre-event peak hour in Figure 4 and Figure 5 and post-event peak hour in Figure 6 and Figure 7.

FUTURE BUILD 2025 PEDESTRIAN AND BICYCLE TRAVEL

The proposed venue is estimated to generate a significant amount of new walking and bicycling trips. These trips are expected to occur both as primary trips between nearby origins and destinations (e.g., residences, hotels, restaurants/bars), and as secondary trips at the beginning or end of trips from nearby existing private vehicle parking or transit stops. Table 13 shows that an estimated 387 pre-event peak and 595 post-event peak primary transit, walking, biking, or e-scooter trips generated by the proposed venue were assumed to occur between these nearby origins and destinations. This includes 68 pre-event peak and 104 post-event peak biking trips, 29 pre-event peak and 45 post-event peak e-scooter trips, 39 pre-event peak and 60 post-event peak walking trips, and 252 pre-event peak and 387 post-event peak transit trips.

TABLE 13: PRIMARY TRANSIT, WALKING, BIKING, AND E-SCOOTER TRIPS

	PRE-EVENT PEAK HOUR (7-8 P.M.)			POST-EVENT PEAK HOUR (11 P.M. -12 A.M.)		
	IN	OUT	TOTAL	IN	OUT	TOTAL
TOTAL PRIMARY TRANSIT, WALKING, BIKING AND E-SCOOTER TRIPS (ATTENDEE AND EMPLOYEE)	**385**	**2**	**387**	**0**	**595**	**595**
PRIMARY TRANSIT TRIPS (13 PERCENT)	*250*	*1*	*252*	*0*	*387*	*387*
PRIMARY WALKING TRIPS (2 PERCENT)	*39*	*0*	*39*	*0*	*60*	*60*
PRIMARY BIKING TRIPS (3.5 PERCENT)	*67*	*0*	*68*	*0*	*104*	*104*
PRIMARY E-SCOOTER TRIPS (1.5 PERCENT)	*29*	*0*	*29*	*0*	*45*	*45*

Higher pedestrian volumes are also expected on pedestrian facilities between the venue and nearby existing private vehicle parking, ride hailing loading zones or transit stops. These include sidewalks on SE Water Avenue, SE Salmon Street, SE Main Street, and the Eastbank Esplanade, as well as crossings at the SE Water Avenue/SE Salmon Street and SE Water Avenue/SE Main Street intersections.

The primary general admission entry point for the proposed venue will be located along the northeast corner of the building near the SE Water Avenue/SE Salmon Street intersection. Multiple general admission exit points will be located along the easterly face of the building to SE Water Avenue. A VIP entry and exit point will be located on the northwest corner of the building on SE Salmon Street. Prior to events, attendee queueing will be accommodated via the sidewalk along the SE Salmon Street and SE Water Avenue frontage of the venue.

The street frontages of the proposed venue will be improved to feature wider sidewalks, to include 12-foot sidewalk corridors on SE Main Street and SE Salmon Street, consistent with their local street designations in a Pedestrian District and a 15-foot sidewalk corridor along SE Water Avenue, consistent with its Major City Walkway and Neighborhood Main Street designations. A curb extension will be provided at the southwest corner of the SE Water Avenue/SE Salmon Street intersection to provide safe and convenient crossings of SE Water Avenue for pedestrians walking between nearby destinations. Direct pedestrian connections are also available to the OMSI/Water transit station, downtown Portland and SE Water Avenue via walkways adjacent to streets and the Eastbank Esplanade.

Since bicycle trips occur over a longer distance, the new site generated bike trips (i.e., 68 pre-event peak and 104 post-event peak trips) were distributed based on the external bike routes and a similar distribution to the vehicle trips shown previously in Figure 3.

Most cyclists are expected to utilize the Eastbank Esplanade, with 44 cyclists traveling along it towards the proposed venue during the pre-event peak hour and 68 cyclists traveling along it away from the proposed venue during the post-event peak hour. Cyclists are also expected to utilize the bike routes along SE Water Avenue (i.e., 13 pre-event peak and 21 post-event peak trips) and SE Salmon Street (i.e., 10 pre-event peak and 16 post-event peak trips) to travel to/from areas to the north and east of the proposed venue.

It is expected that cyclists will primarily access bike parking along SE Salmon Street given its designation as a Major City Bikeway or SE Main Street given its designation as a City Bikeway and their connections to the Eastbank Esplanade. Bike trips are estimated to account for 3.5 percent of the total trips for the proposed venue, meaning for a sold-out concert up to 135 bike parking spaces would be needed, including 123 spaces for attendees and 12 spaces for employees. Current bicycle parking standards require the proposed venue to provide 6 long-term and 32 short-term bicycle parking spaces (based on 1,280 seats)[18], or 97 fewer spaces than the estimated demand.

[18] Title 33 (33.266.200), based on the Major Event Entertainment use.

The City has two planned projects to enhance the bikeways on SE Water Avenue and SE Salmon Street adjacent to the proposed venue. These planned projects include a two-way cycle track on the west side of SE Water Avenue (i.e., along the frontage of the proposed venue) from SE Stark Street to SE Clay Street, and neighborhood greenway improvements along SE Salmon Street from the Eastbank Esplanade to SE 7th Avenue.

FIGURE 4: TRAVEL VOLUMES (PRE-EVENT PEAK HOUR)

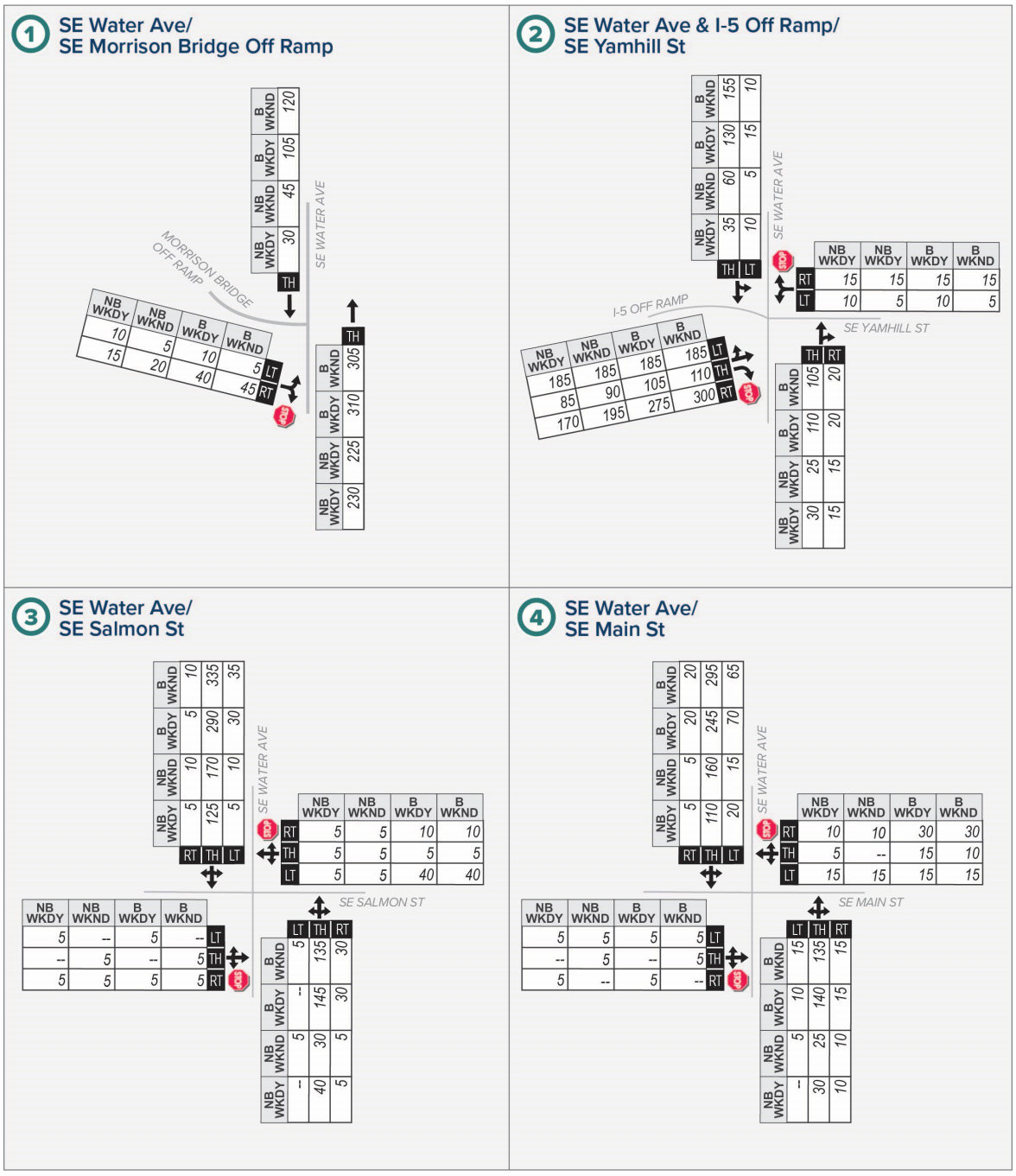


FIGURE 5: TRAVEL VOLUMES (PRE-EVENT PEAK HOUR)

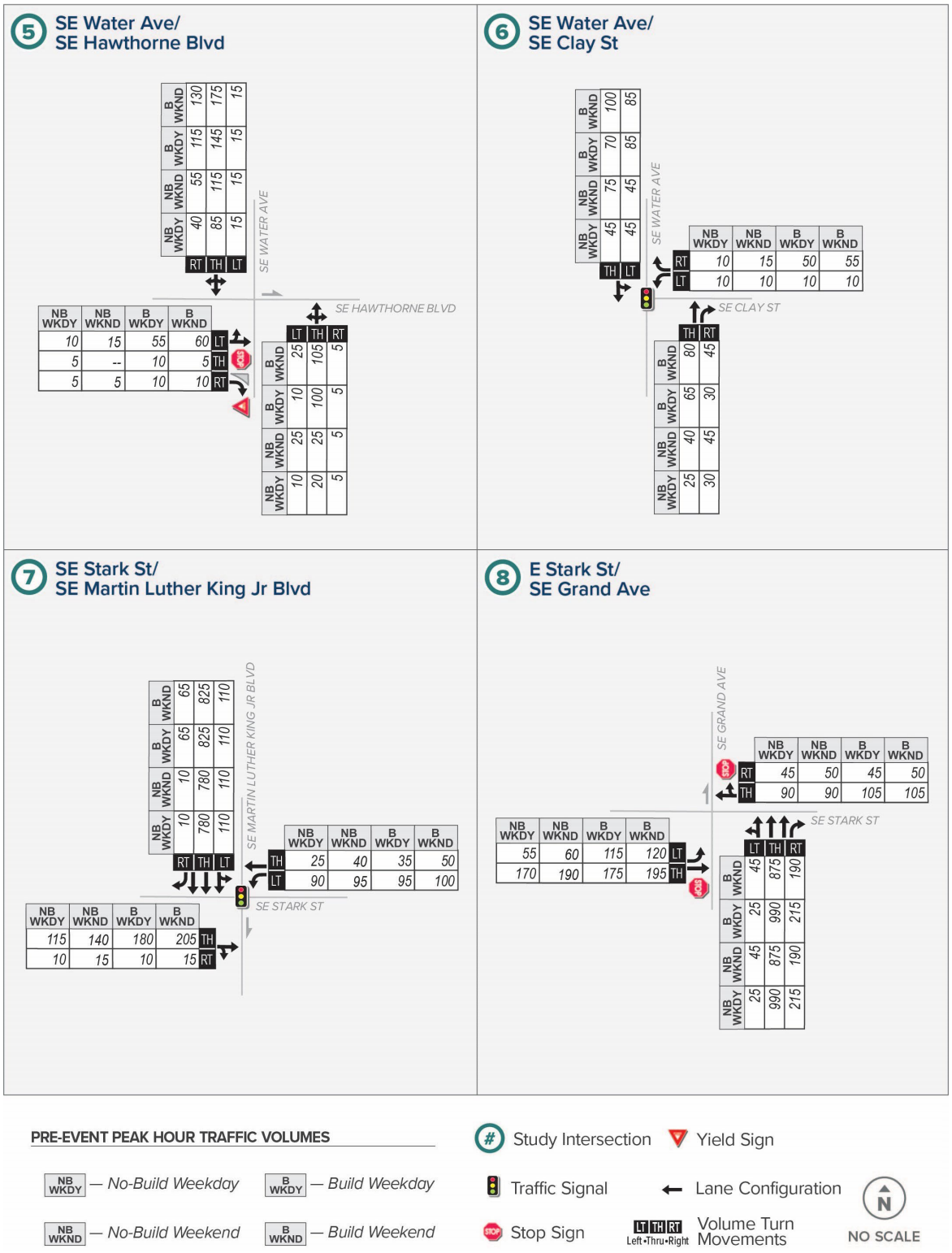


FIGURE 6: TRAVEL VOLUMES (POST-EVENT PEAK HOUR)

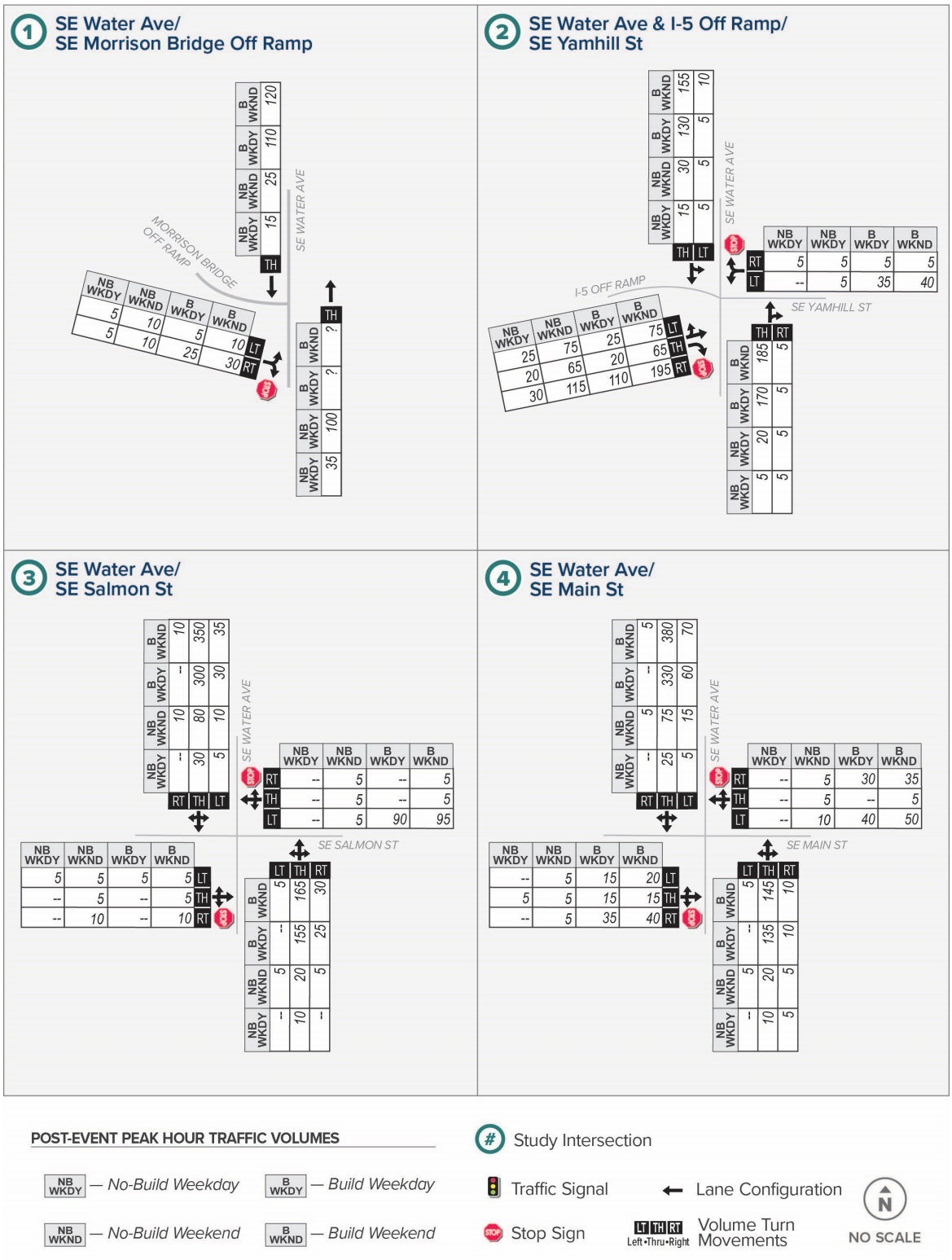
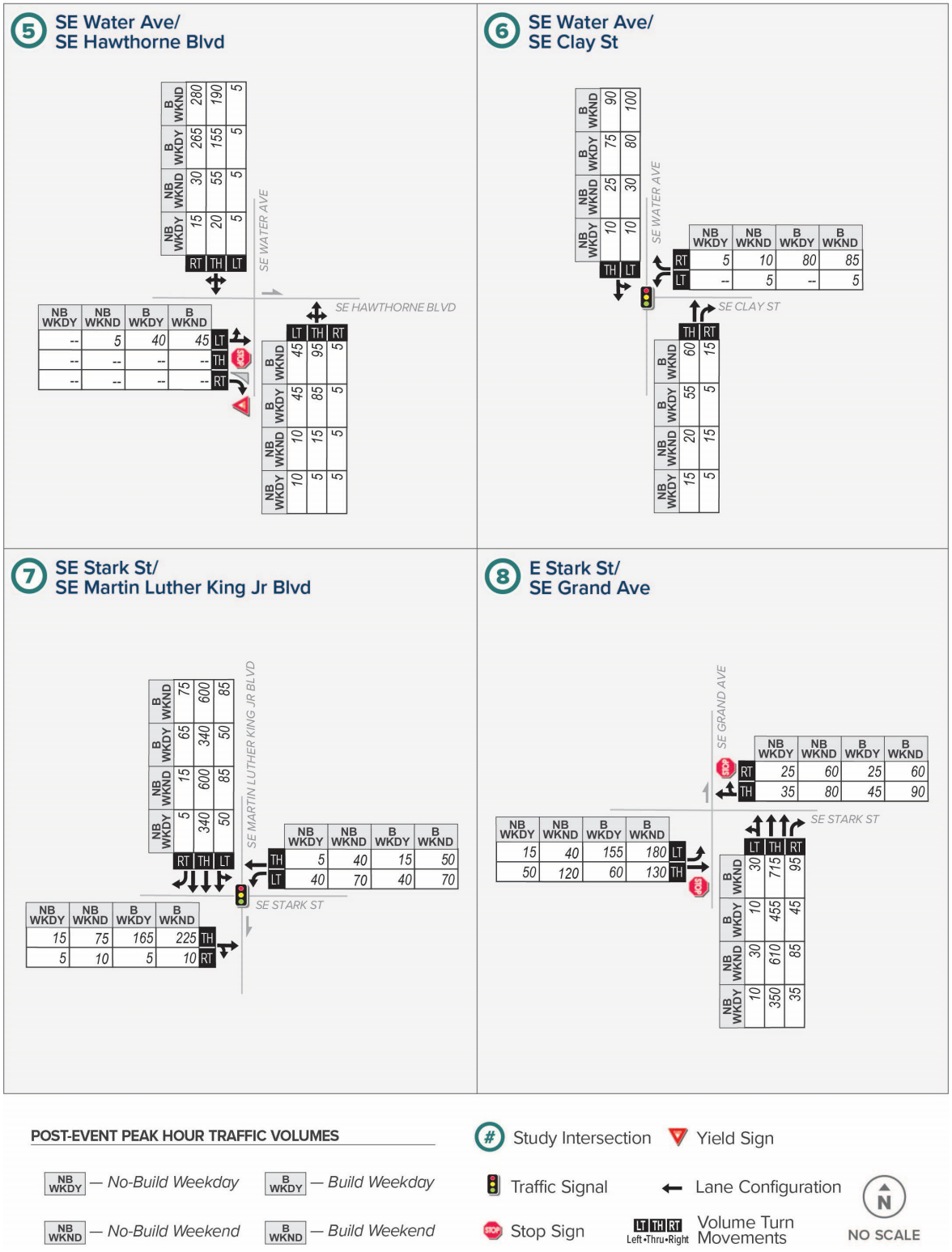


FIGURE 7: TRAVEL VOLUMES (POST-EVENT PEAK HOUR)



RIDE HAILING

The use of ride hailing services (e.g., Uber and Lyft) to and from events is currently estimated to be the preferred means of travel for 30% of attendees. This translates to an estimated 552 ride-hailing vehicles dropping off passengers at the venue during the pre-event period and picking them up during the post-event period, or 254 during the pre-event peak hour and 398 during the post-event peak hour. These trips would each be inbound and outbound, which would include vehicles pulling to and from the curb. However, given that attendees may occasionally stop for a meal or drink before or after an event, it is likely that some ride hail loading is happening in Downtown Portland and at businesses in the Central Eastside, and not solely right by the venue.

However, given that attendees may occasionally stop for a meal or drink before or after an event, it is likely that some ride hail loading is happening in Downtown Portland and at businesses in the Central Eastside, and not solely right by the venue. Assuming 80% of these ride hailing trips occur near the venue during the post-event peak hour (which represents the busier of the two event peak hours with respect to ride hailing activity), this equates to about 5.3 pick-ups per minute during the one-hour period. Assuming an average curb dwell and loading time of 81 seconds for passenger pick-ups, an estimated 7 spaces or about 175 feet of total curb space would be needed to accommodate this unregulated peak pick-up activity for a sold-out event.

It is expected that special event loading zones will be implemented to allow for pre-event drop-off and post-event pick-up activity at a variety of locations surrounding the proposed venue, with some potential locations provided below, although the final locations are to be determined through coordination with the City. Event loading zones should not be located along high traffic roadways or those with Major City Bikeway designations (i.e., SE Water Avenue, SE Salmon Street, SE Grand Avenue and SE Martin Luther King Jr Boulevard).

- North and south side of SE Main Street between SE Water Avenue and SE 2nd Avenue.
- South side of SE Taylor Street between SE Water Avenue and the railroad crossing.
- East and west side of SE 3rd Avenue between SE Salmon Street and SE Main Street.

These street segments can serve as "flex zones" that can also be used for on-street parking at times when large events at the proposed venue are not occurring.

TRUCK LOADING

The loading dock and staging area for the proposed venue will be located along the south building frontage of the proposed venue, as shown in Figure 8. The truck loading dock will have two off-street loading bays, although truck staging will partially occur on-street. Immediate access to the truck loading dock and staging area will be provided via SE Main Street, just west of the intersection with SE Water Avenue. Bus staging will be located along SE Main Street. Loading is not allowed on the SE Water Avenue and SE Salmon Street frontages of the proposed venue given the Major City Bikeway designation that prohibits loading.

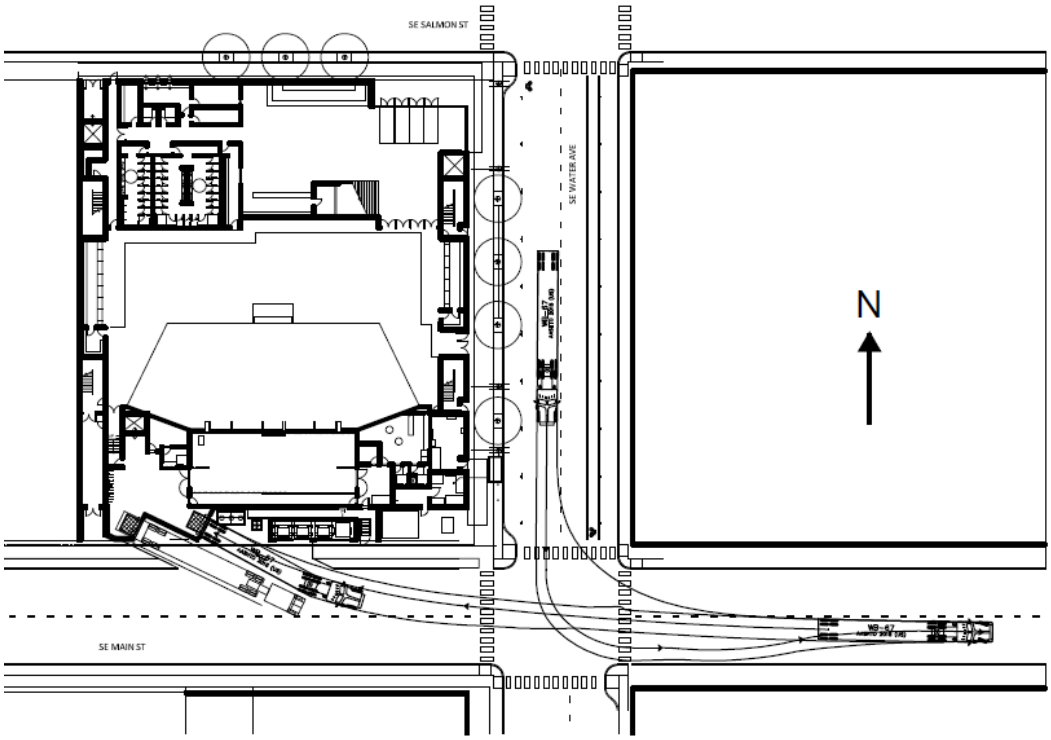
In general, trucks as large as WB-67 are expected to arrive at the venue between 7:00 a.m. and 12:00 p.m. and depart within two hours of the event conclusion. For large events, two trucks and three buses are expected to be on-site during events. One bus will be staged along SE Main Street, and to the extent that a given show has more than one bus, the additional buses will be staged elsewhere on private property.

Turning radius exhibits were evaluated for the inbound and outbound truck route to determine appropriate design widths. Inbound trucks will need to reverse into the loading dock on SE Main Street after executing a multi-point turn at the SE Water Avenue/SE Main Street intersection. A spotter should be present to assist with the inbound truck maneuver at the SE Water Avenue/SE Main Street intersection to ensure it can be done safely. Outbound trucks will exit the loading dock directly onto SE Main Street towards the SE Water Avenue intersection.

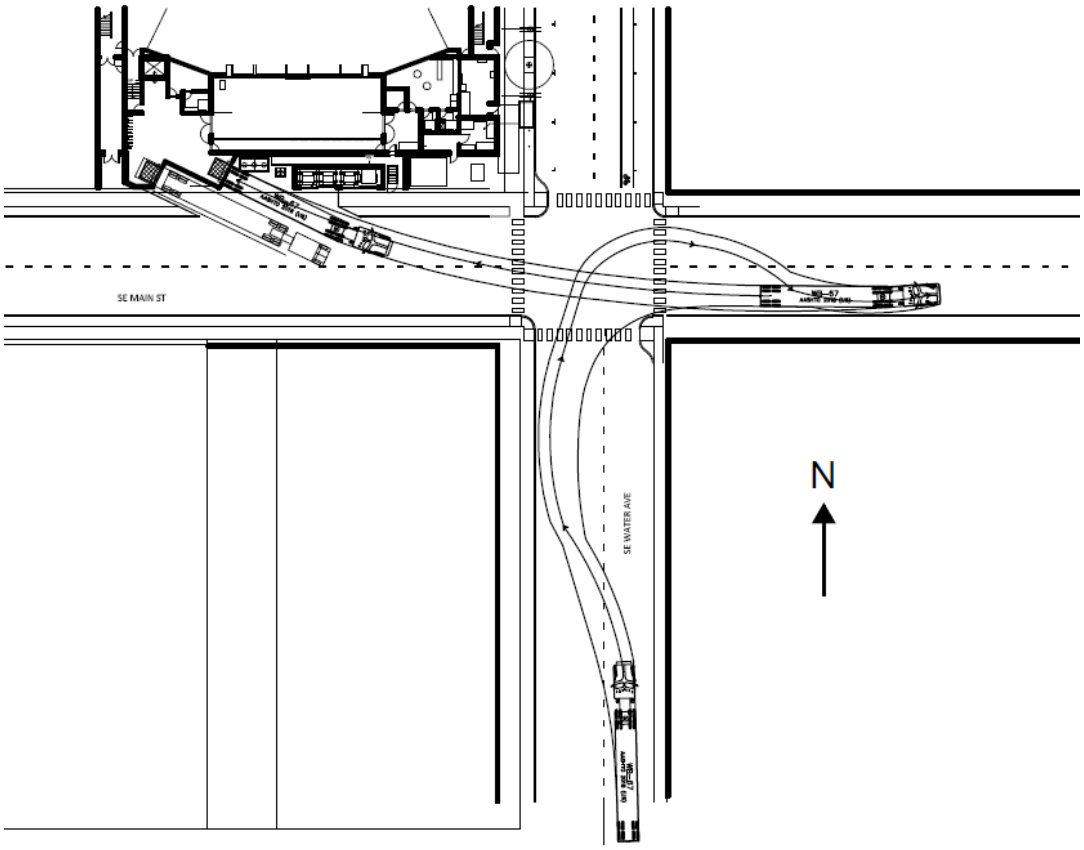
SE Water Avenue is a Priority Truck Street and all remaining streets near the proposed venue include Freight District Street designations since the area is located within the Central Eastside Freight District. These designations require the streets to be designed to fully accommodate truck movements without impeding their mobility, although they must also be balanced with other street design considerations to fully accommodate all modes.

FIGURE 8: PROPOSED VENUE LOADING

Trucks Southbound on SE Water Avenue pulling into loading bays (WB-67)



Trucks Northbound on SE Water Avenue pulling into loading bays (WB-67)



PARKING

No off-street parking is proposed or required for the proposed venue, although a parking study was completed to better understand the availability and occupancy of the existing nearby on-street and off-street public parking. Parking surveys were conducted between 6:00 p.m. and 11:00 p.m. on a weekday (Thursday, July 27, 2023) and a weekend (Saturday, August 5, 2023) within a 0.25 mile or about a 10-minute walk of the proposed venue, which is generally considered a comfortable walking distance. This roughly includes the blocks bounded by the Willamette River to the west, SE Morrison Street to the north, SE Grand Avenue to the east and SE Clay Street to the south. On-street parking in the surveyed area is either permit parking (i.e., Zone G or Zone N permit) or available via a 2-hour time limit for non-permit holders and enforced from 8 a.m. to 6 p.m. on weekdays only. As shown in Table 14, about 1,318 parking spots were identified within the surveyed area, including 1,084 on-street parking stalls and 234 parking spots in public off-street lots (see Figure 9 and Figure 10). A maximum estimated parking occupancy for the entire surveyed area of 32 percent was observed during the weekday and 17 percent was observed during the weekend, both occurring in the 5:00 p.m. and 7:00 p.m. survey period.

TABLE 14: PARKING OCCUPANCY NEAR THE PROPOSED VENUE

LOCATION **	AVAILABLE PARKING	PRE-EVENT (5-7 P.M.) *		DURING EVENT (7-9 P.M.) *		POST-EVENT (9-11 P.M.) *	
		Occupied Stalls	Occupancy Percent	Occupied Stalls	Occupancy Percent	Occupied Stalls	Occupancy Percent
WEEKDAY							
TOTAL PARKING (ON STREET AND OFF-STREET) **	**1,318**	**419**	**32%**	**350**	**27%**	**236**	**18%**
TOTAL ON-STREET PARKING **	**1,084**	**343**	**32%**	**297**	**27%**	**205**	**19%**
WILLAMETTE RIVER TO SE GRAND AVENUE, AND SE MORRISON STREET TO SE YAMHILL STREET	*274*	*40*	*15%*	*34*	*12%*	*19*	*7%*
WILLAMETTE RIVER TO SE GRAND AVENUE, AND SE YAMHILL STREET TO SE SALMON STREET	*294*	*119*	*40%*	*112*	*38%*	*74*	*25%*
WILLAMETTE RIVER TO SE GRAND AVENUE, AND SE SALMON STREET TO SE MADISON STREET	*301*	*123*	*41%*	*101*	*34%*	*80*	*27%*

LOCATION **	AVAILABLE PARKING	PRE-EVENT (5-7 P.M.) *		DURING EVENT (7-9 P.M.) *		POST-EVENT (9-11 P.M.) *	
		Occupied Stalls	Occupancy Percent	Occupied Stalls	Occupancy Percent	Occupied Stalls	Occupancy Percent
WILLAMETTE RIVER TO SE GRAND AVENUE, AND SE MADISON STREET TO SE CLAY STREET	*215*	*61*	*28%*	*50*	*23%*	*32*	*15%*
**TOTAL PUBLIC OFF-STREET ** **	**234**	**76**	**32%**	**53**	**23%**	**31**	**13%**
WEEKEND							
**TOTAL PARKING (ON STREET AND OFF-STREET) ** **	**1,318**	**229**	**17%**	**193**	**15%**	**124**	**9%**
**TOTAL ON-STREET PARKING ** **	**1,084**	**204**	**19%**	**175**	**16%**	**114**	**11%**
WILLAMETTE RIVER TO SE GRAND AVENUE, AND SE MORRISON STREET TO SE YAMHILL STREET	*274*	*27*	*10%*	*22*	*8%*	*16*	*6%*
WILLAMETTE RIVER TO SE GRAND AVENUE, AND SE YAMHILL STREET TO SE SALMON STREET	*294*	*87*	*30%*	*86*	*29%*	*47*	*16%*
WILLAMETTE RIVER TO SE GRAND AVENUE, AND SE SALMON STREET TO SE MADISON STREET	*301*	*65*	*22%*	*52*	*17%*	*37*	*12%*
WILLAMETTE RIVER TO SE GRAND AVENUE, AND SE MADISON STREET TO SE CLAY STREET	*215*	*25*	*12%*	*15*	*7%*	*14*	*7%*
**TOTAL PUBLIC OFF-STREET ** **	**234**	**25**	**11%**	**18**	**8%**	**10**	**4%**

Notes: * The maximum estimated occupancy is reported for each period.

** The parking survey includes the blocks bounded by the Willamette River to the west, SE Morrison Street to the north, SE Grand Avenue to the east and SE Clay Street to the south.

In addition to the survey parking spots summarized above, approximately 5,000 additional on-street stalls within the Central Eastside Industrial District[19] and more than 1,500 additional spots in parking garages across the Hawthorne Bridge in Downtown Portland are within about a 0.50 mile walk from the proposed venue.

The parking occupancy was evaluated with the proposed venue in place during both a sold-out evening concert (i.e., 45 events per year with 3,500 attendees and 350 employees) and a weekday special event (i.e., 18 events per year with 500 attendees and 50 employees). The results shown in Table 15 and Table 16 are based on the parking surveys summarized earlier in this document which identified parking availability of 1,318 total spaces and estimated parking occupancy rates within 0.25 miles of the proposed venue.

Table 15 shows that a sold-out concert is estimated to generate demand for 915 parking spaces during both a weekday and weekend event, with attendee and employee arrivals occurring between 6:00 p.m. and 9:00 p.m.[20] and most assumed to use parking locations within 0.25 miles of the proposed venue (i.e., 763 of the 915 parking spaces)[21]. The total occupied parking spaces with the proposed venue is estimated to be highest between 8:00 p.m. and 9:00 p.m. during both a weekday and weekend event when the attendee and employee parking demand is at its highest (i.e., demand for 763 spaces within 0.25 miles of the proposed venue). The parking occupancy rate during this period is estimated to reach 82 percent during a weekday event (i.e., 1,074 parking spaces) and 71 percent during a weekend event (i.e., 930 parking spaces) for the 1,318 parking spaces within 0.25 miles of the proposed venue. The estimated parking occupancy rates between 6:00 and 8:00 p.m. are under 80 percent for a weekday event and under 70 percent for a weekend event.

TABLE 15: ESTIMATED PARKING DEMAND AND AVAILABILITY WITH A SOLD-OUT CONCERT

		WEEKDAY ARRIVAL TIME ***			WEEKEND ARRIVAL TIME ***		
		6-7 p.m.	7-8 p.m.	8-9 p.m.	6-7 p.m.	7-8 p.m.	8-9 p.m.
TOTAL ESTIMATED PARKING DEMAND (ATTENDEES AND STAFF) **	**915**	**421**	**418**	**76**	**421**	**418**	**76**
PARKING ON EAST SIDE OF RIVER, WITHIN .25 MILES OF SITE	*763*	*368*	*335*	*61*	*368*	*335*	*61*

[19] 2019 Central Eastside Industrial District Parking Assessment and Permit Analysis Summary, Rick Williams Consulting, June 5, 2019.

[20] Attendee arrivals are estimated at 35 percent between 6-7 p.m., 55 percent between 7-8 p.m. and 10 percent between 8-9 p.m., while 340 staff arrive by 6 p.m. and 10 staff arrive at 10 a.m.

[21] All employees and 80 percent of attendees are assumed to park within 0.25 miles of the proposed venue, with the remaining 20 percent of attendees parking more than 0.25 miles from the proposed venue elsewhere in the Central Eastside (10 percent) or on the west side of the Willamette River in Downtown Portland (10 percent).

		WEEKDAY ARRIVAL TIME ***			WEEKEND ARRIVAL TIME ***		
		6-7 p.m.	7-8 p.m.	8-9 p.m.	6-7 p.m.	7-8 p.m.	8-9 p.m.
PARKING ON EAST SIDE OF RIVER, MORE THAN .25 MILES FROM SITE	*76*	*27*	*42*	*8*	*27*	*42*	*8*
PARKING ON WEST SIDE OF WILLAMETTE RIVER	*76*	*27*	*42*	*8*	*27*	*42*	*8*
ATTENDEES PARKING DEMAND	**761**	**266**	**418**	**76**	**266**	**418**	**76**
PARKING ON EAST SIDE OF RIVER, WITHIN .25 MILES OF SITE (80%)	*609*	*213*	*335*	*61*	*213*	*335*	*61*
PARKING ON EAST SIDE OF RIVER, MORE THAN .25 MILES FROM SITE (10%)	*76*	*27*	*42*	*8*	*27*	*42*	*8*
PARKING ON WEST SIDE OF WILLAMETTE RIVER (10%)	*76*	*27*	*42*	*8*	*27*	*42*	*8*
STAFF PARKING DEMAND	**155**	**155**	**0 ***	**0**	**155**	**0 ***	**0**
PARKING ON EAST SIDE OF RIVER, WITHIN .25 MILES OF SITE (100%)	*155*	*155*	*0*	*0*	*155*	*0*	*0*
ESTIMATED PARKING OCCUPANCY RATE		32%	27%	24%	17%	15%	13%
ESTIMATED OCCUPIED PARKING WITHOUT THE PROPOSED VENUE		345	283 *	255 *	188	154 *	136 *
ESTIMATED TOTAL PARKING DEMAND OF PROPOSED VENUE		368	702	763	368	702	763
ESTIMATED OCCUPIED PARKING WITH PROPOSED VENUE		**787**	**1,047**	**1,074**	**597**	**890**	**930**
ESTIMATED OCCUPANCY RATE WITH PROPOSED VENUE		**60%**	**79%**	**82%**	**45%**	**68%**	**71%**

Source: DKS Associates field surveys.

Notes: The estimated parking availability (1,318 total parking spaces) and occupancy reported within 0.25 miles of the proposed venue.

* Five staff private vehicle trips departing between 7-8 p.m. were reduced from the occupied parking.

** A sold-out concert includes 3,500 attendees and 350 employees, with 50 percent of the total trips assumed to be via private vehicles, and an average vehicle occupancy estimated at 2.3 persons per vehicle for attendees and 1.1 persons per vehicle for employees. All staff and 80 percent of attendees are assumed to park within 0.25 miles of the proposed venue.

*** Attendee arrivals are estimated at 35 percent between 6-7 p.m., 55 percent between 7-8 p.m. and 10 percent between 8-9 p.m., while 340 staff arrive by 6 p.m. and 10 staff arrive at 10 a.m.

Table 16 shows that a weekday special event is estimated to generate demand for 131 parking spaces, with attendee and employee arrivals occurring between 12:00 p.m. and 3:00 p.m.[22] and all are assumed to use parking locations within 0.25 miles of the proposed venue. The total occupied parking spaces with the proposed venue is estimated to be highest between 1:00 p.m. and 2:00 p.m., when 1,135 parking spaces are utilized. This represents an 86 percent occupancy rate for the 1,318 parking spaces within 0.25 miles of the proposed venue. The estimated parking occupancy rates between 12:00 and 1:00 p.m. and are 2:00 and 3:00 p.m. are at or below 84 percent.

TABLE 16: ESTIMATED PARKING DEMAND AND AVAILABILITY WITH A WEEKDAY SPECIAL EVENT

		ARRIVAL TIME **		
		12-1 p.m.	1-2 p.m.	2-3 p.m.
TOTAL ESTIMATED PARKING DEMAND (ATTENDEES AND STAFF) *	**131**	**61**	**60**	**11**
ATTENDEES PARKING DEMAND	109	38	60	11
STAFF PARKING DEMAND	23	23	0	0
ESTIMATED PARKING OCCUPANCY RATE		78%	77%	74%
ESTIMATED OCCUPIED PARKING WITHOUT THE PROPOSED VENUE		841	835	801
ESTIMATED TOTAL PARKING DEMAND OF PROPOSED VENUE		61	121	131
ESTIMATED OCCUPIED PARKING WITH PROPOSED VENUE		**1,084**	**1,135**	**1,105**
ESTIMATED OCCUPANCY RATE WITH PROPOSED VENUE		**82%**	**86%**	**84%**

Source: DKS Associates field surveys and 2019 Central Eastside Industrial District Parking Assessment and Permit Analysis Summary, Rick Williams Consulting.

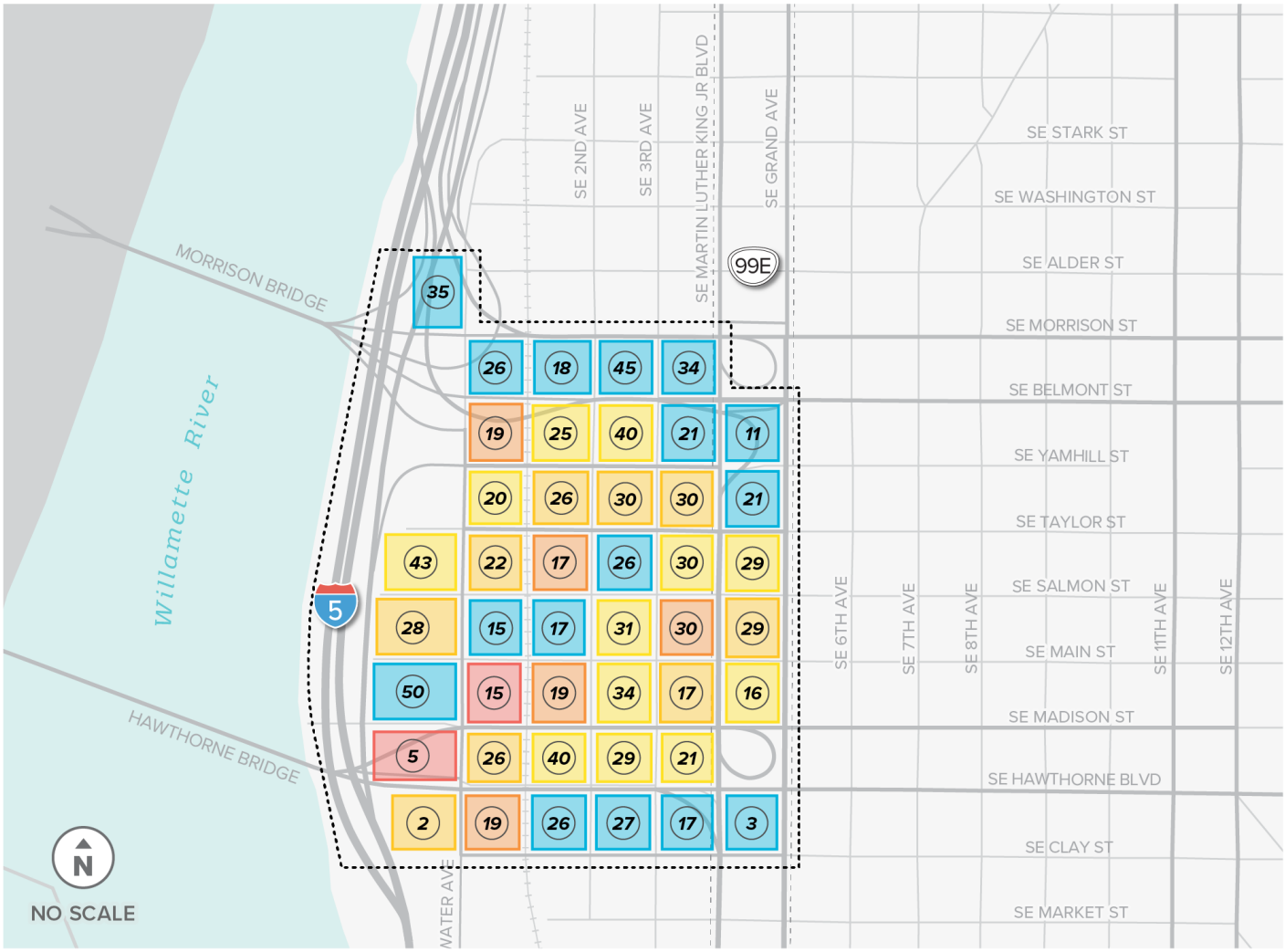
Notes: The estimated parking availability (1,318 total parking spaces) and occupancy reported within 0.25 miles of the proposed venue.

* A special event includes 500 attendees and 50 employees, with 50 percent of the total trips assumed to be via private vehicles, and an average vehicle occupancy estimated at 2.3 persons per vehicle for attendees and 1.1 persons per vehicle for employees. All attendees and staff for a weekday special event are assumed to park within 0.25 miles of the proposed venue.

** Attendee arrivals are estimated at 35 percent between 12-1 p.m., 55 percent between 1-2 p.m. and 10 percent between 2-3 p.m., while all 50 staff are assumed to arrive by 12 p.m.

[22] Attendee arrivals are estimated at 35 percent between 12-1 p.m., 55 percent between 1-2 p.m. and 10 percent between 2-3 p.m.; all 50 staff are assumed to arrive by 12 p.m.

FIGURE 9: PARKING SUPPLY AND OCCUPANCY - WEEKDAY



Parking Survey Boundary

(#) Total On-Street Parking Available

PERCENT OCCUPANCY

- < 20%
- 20% – 39%
- 40% – 59%
- 60% – 79%
- > 80%

AM WEEKDAY

Total Parking (On-Street and Off-Street): ***1,318***

Maximum Occupancy (Weekday):

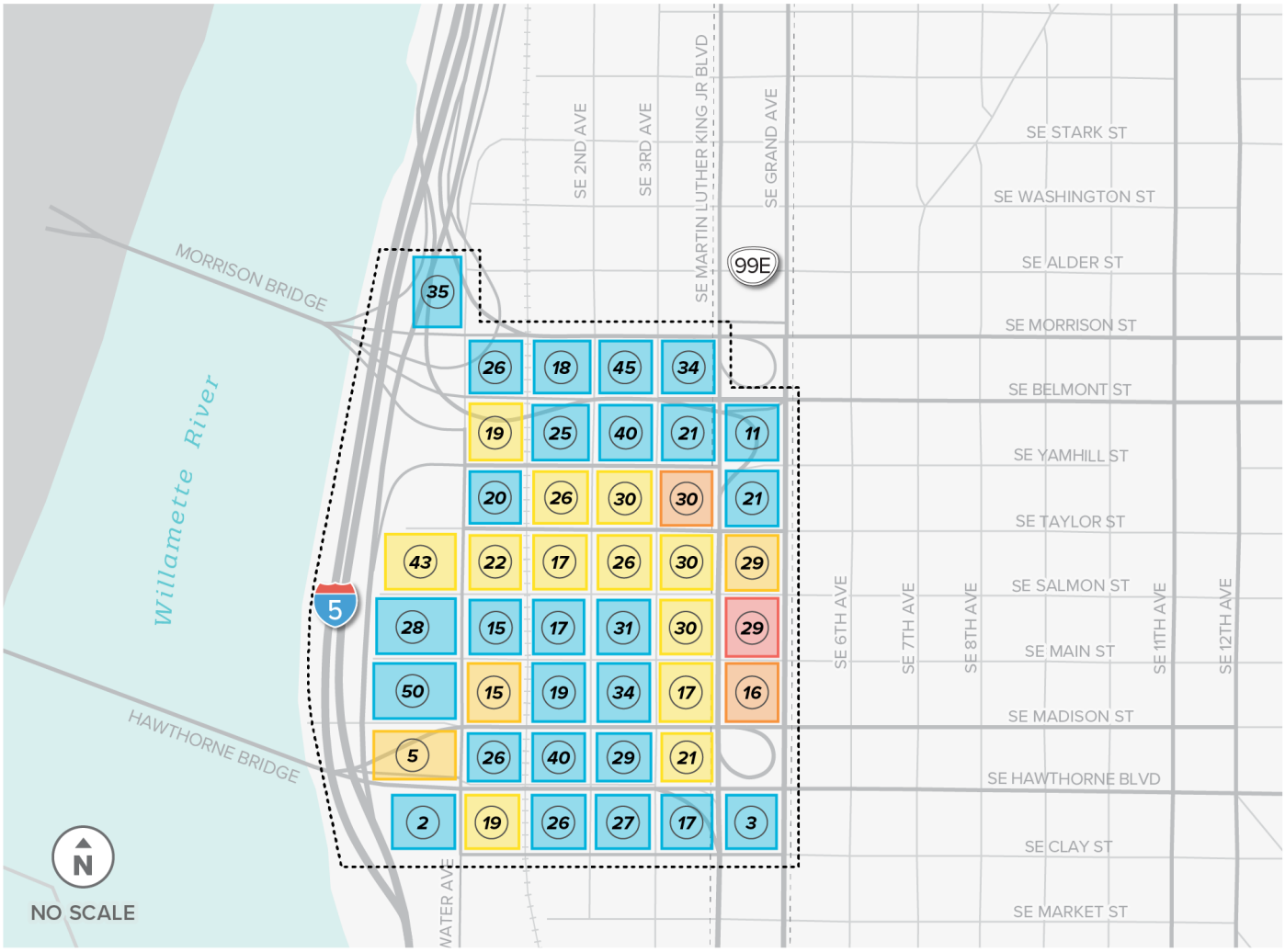
On-Street and Off-Street: ***32%***

On-Street: ***32%***

- SE Morrison Street to SE Yamhill Street: ***15%***
- SE Yamhill Street to SE Salmon Street: ***40%***
- SE Salmon Street to SE Madison Street: ***41%***
- SE Madison Street to SE Clay Street: ***28%***

Public Off-Street: ***32%***

FIGURE 10: PARKING SUPPLY AND OCCUPANCY - WEEKEND



Parking Survey Boundary

(#) Total On-Street Parking Available

PERCENT OCCUPANCY

- < 20%
- 20% – 39%
- 40% – 59%
- 60% – 79%
- > 80%

AM WEEKEND

Total Parking (On-Street and Off-Street): ***1,318***

Maximum Occupancy (Weekend):

On-Street and Off-Street: ***17%***

On-Street: ***19%***

- SE Morrison Street to SE Yamhill Street: ***10%***
- SE Yamhill Street to SE Salmon Street: ***30%***
- SE Salmon Street to SE Madison Street: ***22%***
- SE Madison Street to SE Clay Street: ***12%***

Public Off-Street: ***11%***

FUTURE 2025 BUILD STUDY INTERSECTION OPERATIONS

The Future 2025 Build study intersection capacity analysis results are summarized in Table 17. As was the case for the 2025 No-Build analysis, no changes were applied at study intersections to account for the previously identified planned improvements near the proposed venue since they are not likely to be fully funded and constructed by 2025. All study intersection configurations remain the same as Existing Conditions.

Table 17 shows the future 2025 intersection operations at study intersections, with the proposed venue. As shown, all study intersections are expected to continue to meet mobility targets despite the added traffic growth from the proposed venue through 2025. However, the v/c ratios are expected to increase up to 14 percent during the pre-event peak hour and up to 41 percent during the post-event peak hour. All intersections along SE Water Avenue are expected operate with a LOS C or better and with a v/c of 0.51 or less, while the signalized intersections at SE Stark Street/SE Grand Avenue and SE Stark Street/SE Martin Luther King Jr Boulevard operate with a LOS C or better and with a v/c of 0.55 or better. Detailed intersection operations calculation worksheets are included in the Appendix.

TABLE 17: FUTURE BUILD 2025 STUDY INTERSECTION OPERATIONS

STUDY INTERSECTION	TRAFFIC CONTROL	MOBILITY TARGET	PRE-EVENT PEAK HOUR (7-8 P.M.)			POST-EVENT PEAK HOUR (11 P.M. -12 A.M.)		
			LOS	DELAY	V/C	LOS	DELAY	V/C
WEEKDAY								
SE WATER AVENUE/SE MORRISON BRIDGE OFF RAMP	Two-Way Stop Control	LOS E	A/A	0/10	0.23/0.08	A/B	0/10	0.21/0.07
SE WATER AVENUE & I-5 OFF RAMP/SE YAMHILL STREET	All-Way Stop Control	0.85 v/c	B	14	0.49	B	10	0.33
SE WATER AVENUE/SE SALMON STREET	Two-Way Stop Control	LOS E	A/B	8/15	0.23/0.15	A/C	8/25	0.29/0.42
SE WATER AVENUE/SE MAIN STREET	Two-Way Stop Control	LOS E	A/B	8/14	0.12/0.15	A/C	8/22	0.34/0.32
SE WATER AVENUE/SE HAWTHORNE BOULEVARD	Two-Way Stop Control	LOS E	A/B	8/14	0.10/0.18	A/C	9/19	0.17/0.20
SE WATER AVENUE/SE CLAY STREET	Traffic Signal	LOS D	A	4	0.21	A	5	0.26
SE STARK STREET/SE MARTIN LUTHER KING JR BOULEVARD	Traffic Signal	0.99 v/c	C	23	0.52	B	16	0.30
SE STARK STREET/SE GRAND AVENUE	Traffic Signal	0.99 v/c	B	13	0.48	B	12	0.32

STUDY INTERSECTION	TRAFFIC CONTROL	MOBILITY TARGET	PRE-EVENT PEAK HOUR (7-8 P.M.)			POST-EVENT PEAK HOUR (11 P.M. -12 A.M.)		
			LOS	DELAY	V/C	LOS	DELAY	V/C
WEEKEND								
SE WATER AVENUE/SE MORRISON BRIDGE OFF RAMP	Two-Way Stop Control	LOS E	A/A	0/10	0.24/0.08	A/A	0/10	0.18/0.06
SE WATER AVENUE & I-5 OFF RAMP/SE YAMHILL STREET	All-Way Stop Control	0.85 v/c	B	14	0.51	B	11	0.32
SE WATER AVENUE/SE SALMON STREET	Two-Way Stop Control	LOS E	A/C	8/15	0.11/0.15	A/C	8/24	0.15/0.41
SE WATER AVENUE/SE MAIN STREET	Two-Way Stop Control	LOS E	A/C	8/16	0.11/0.03	A/C	8/21	0.11/0.32
SE WATER AVENUE/SE HAWTHORNE BOULEVARD	Two-Way Stop Control	LOS E	A/B	8/13	0.09/0.14	A/B	9/14	0.12/0.12
SE WATER AVENUE/SE CLAY STREET	Traffic Signal	LOS D	A	4	0.25	A	5	0.29
SE STARK STREET/SE MARTIN LUTHER KING JR BOULEVARD	Traffic Signal	0.99 v/c	B	13	0.55	B	12	0.39
SE STARK STREET/SE GRAND AVENUE	Traffic Signal	0.99 v/c	B	13	0.46	B	15	0.46

Note: Intersection operations are reported for the entire intersection at traffic signals and all-way stop intersections, and for the worst major street movement/worst minor street movement at two-way stop control intersections.

FUTURE 2025 QUEUING ANALYSIS

To supplement the HCM operations analysis performed at study intersections, queuing analysis was performed using SimTraffic. Table 18 and Table 19 present average and 95th percentile (reasonable worst-case) queues for Future No Build and Build conditions for the weekday and weekend pre-event and post-event peak hours. Queues that exceed the storage distance are bolded. Storage length is measured to the end of the turn pocket or to the next intersection. For the SE Water Avenue & I-84 Off Ramp the storage noted is less than or equal to the safe stopping distance per the Oregon Highway Plan. Detailed reports are included in the Appendix.

The study intersections along SE Water Avenue function well and are expected to operate better than their performance thresholds, and with minimal queuing. However, the 95th percentile queue for the eastbound movements at the SE Stark Street/SE Grand Avenue and the westbound movements at the SE Stark Street/SE Martin Luther King Jr Boulevard are forecasted to slightly exceed the available storage and approach the adjacent intersections given that these two intersections are only about 200 feet apart. This occurs in both the No-build and Build scenarios and could likely be mitigated with more responsive signal timing.

TABLE 18: FUTURE 2025 WEEKDAY STUDY INTERSECTION QUEUING ANALYSIS

INTERSECTION	MOVEMENT	STORAGE LENGTH (FT)	2025 NO BUILD		2025 BUILD	
			AVERAGE QUEUE (FT)	95TH PERCENTILE QUEUE (FT)	AVERAGE QUEUE (FT)	95TH PERCENTILE QUEUE (FT)
WEEKDAY PRE-EVENT PEAK HOUR (7-8 P.M.)						
SE WATER AVENUE/SE MORRISON BRIDGE OFF RAMP	EBLR	300	25	50	50	50
SE WATER AVENUE & I-5 OFF RAMP/SE YAMHILL STREET	EBLT	360	75	100	75	100
	EBR	300	50	75	75	100
	WBLTR	230	25	50	25	50
	NBTR	450	25	75	50	75
	SBLT	80	50	75	50	75
SE WATER AVENUE/SE SALMON STREET	EBLTR	350	25	25	25	50
	WBLTR	200	25	50	50	50
	NBLTR	200	0	0	25	25
	SBLTR	200	0	0	25	50
SE WATER AVENUE/SE MAIN STREET	EBLTR	350	25	50	25	50
	WBLTR	200	25	50	50	50
	NBLTR	200	0	0	25	25
	SBLTR	200	25	25	25	50
SE WATER AVENUE/SE HAWTHORNE BOULEVARD	EBLT	580	25	50	50	75
	EBR	100	0	0	0	0
	NBLTR	240	25	50	25	50
	SBLTR	500	25	25	0	0
SE WATER AVENUE/SE CLAY STREET	WBL	200	25	25	25	50
	WBR	200	25	25	25	75
	NBR	180	25	25	25	25
	SBLT	240	25	75	50	75
SE STARK STREET/SE MARTIN LUTHER KING JR BOULEVARD	WBL	80	75	**125**	75	**125**
	WBT	210	100	**225**	75	200
	SBR	260	25	50	50	75
SE STARK STREET/SE GRAND AVENUE	EBL	50	50	**100**	**75**	**100**
	EBT	210	150	**250**	**225**	**250**
	NBR	220	50	100	50	100

INTERSECTION	MOVEMENT	STORAGE LENGTH (FT)	2025 NO BUILD		2025 BUILD	
			AVERAGE QUEUE (FT)	95TH PERCENTILE QUEUE (FT)	AVERAGE QUEUE (FT)	95TH PERCENTILE QUEUE (FT)
WEEKDAY POST-EVENT PEAK HOUR (11 P.M. -12 A.M.)						
SE WATER AVENUE/SE MORRISON BRIDGE OFF RAMP	EBLR	300	25	25	25	50
SE WATER AVENUE & I-5 OFF RAMP/SE YAMHILL STREET	EBLT	360	25	50	25	50
	EBR	300	25	50	50	50
	WBLTR	230	25	50	25	50
	NBTR	450	25	50	50	75
	SBLT	80	25	50	50	75
SE WATER AVENUE/SE SALMON STREET	EBLTR	350	25	25	25	50
	WBLTR	200	0	0	50	75
	NBLTR	200	0	0	0	0
	SBLTR	200	25	25	25	50
SE WATER AVENUE/SE MAIN STREET	EBLTR	350	25	25	50	100
	WBLTR	200	0	0	50	75
	NBLTR	200	0	0	0	0
	SBLTR	200	0	0	25	50
SE WATER AVENUE/SE HAWTHORNE BOULEVARD	EBLT	580	0	0	25	50
	EBR	100	0	0	0	0
	NBLTR	240	25	25	50	125
	SBLTR	500	0	0	25	50
SE WATER AVENUE/SE CLAY STREET	WBL	200	0	0	0	0
	WBR	200	25	50	50	100
	NBR	180	25	25	0	0
	SBLT	240	0	0	50	100
SE STARK STREET/SE MARTIN LUTHER KING JR BOULEVARD	WBL	80	25	75	50	75
	WBT	210	25	25	25	50
	SBR	260	25	25	50	75
SE STARK STREET/SE GRAND AVENUE	EBL	50	25	**75**	**75**	**100**
	EBT	210	50	100	150	**250**
	NBR	220	25	25	25	50

TABLE 19: FUTURE 2025 WEEKEND STUDY INTERSECTION QUEUING ANALYSIS

INTERSECTION	MOVEMENT *	STORAGE LENGTH (FT)	2025 NO BUILD		2025 BUILD	
			AVERAGE QUEUE (FT)	95TH PERCENTILE QUEUE (FT)	AVERAGE QUEUE (FT)	95TH PERCENTILE QUEUE (FT)
WEEKEND PRE-EVENT PEAK HOUR (7-8 P.M.)						
SE WATER AVENUE/SE MORRISON BRIDGE OFF RAMP	EBLR	300	25	50	50	75
SE WATER AVENUE & I-5 OFF RAMP/SE YAMHILL STREET	EBLT	360	50	75	75	100
	EBR	300	50	75	75	100
	WBLTR	230	25	50	25	50
	NBTR	450	25	50	50	75
	SBLT	80	50	75	75	**100**
SE WATER AVENUE/SE SALMON STREET	EBLTR	350	25	50	25	50
	WBLTR	200	25	50	50	75
	NBLTR	200	25	25	25	50
	SBLTR	200	0	0	25	50
SE WATER AVENUE/SE MAIN STREET	EBLTR	350	25	50	25	50
	WBLTR	200	25	50	50	50
	NBLTR	200	0	0	25	50
	SBLTR	200	25	25	25	50
SE WATER AVENUE/SE HAWTHORNE BOULEVARD	EBLT	580	25	50	50	75
	EBR	100	0	0	0	0
	NBLTR	240	25	50	25	75
	SBLTR	500	25	25	25	25
SE WATER AVENUE/SE CLAY STREET	WBL	200	25	25	25	25
	WBR	200	50	125	50	100
	NBR	180	25	25	25	50
	SBLT	240	25	50	50	100
SE STARK STREET/SE MARTIN LUTHER KING JR BOULEVARD	WBL	80	75	**125**	**100**	**125**
	WBT	210	75	175	175	**300**
	SBR	260	0	0	25	75
SE STARK STREET/SE GRAND AVENUE	EBL	50	50	**100**	**75**	**100**
	EBT	210	150	**250**	200	**275**
	NBR	220	50	100	50	125

INTERSECTION	MOVEMENT *	STORAGE LENGTH (FT)	2025 NO BUILD		2025 BUILD	
			AVERAGE QUEUE (FT)	95TH PERCENTILE QUEUE (FT)	AVERAGE QUEUE (FT)	95TH PERCENTILE QUEUE (FT)
WEEKEND POST-EVENT PEAK HOUR (11 P.M. -12 A.M.)						
SE WATER AVENUE/SE MORRISON BRIDGE OFF RAMP	EBLR	300	25	50	50	50
SE WATER AVENUE & I-5 OFF RAMP/SE YAMHILL STREET	EBLT	360	50	50	50	75
	EBR	300	50	50	50	75
	WBLTR	230	25	50	25	75
	NBTR	450	25	50	50	75
	SBLT	80	25	50	50	75
SE WATER AVENUE/SE SALMON STREET	EBLTR	350	25	50	25	50
	WBLTR	200	25	50	50	75
	NBLTR	200	0	0	25	25
	SBLTR	200	0	0	25	50
SE WATER AVENUE/SE MAIN STREET	EBLTR	350	25	50	50	75
	WBLTR	200	25	50	50	100
	NBLTR	200	0	0	25	25
	SBLTR	200	25	25	25	50
SE WATER AVENUE/SE HAWTHORNE BOULEVARD	EBLT	580	25	50	25	50
	EBR	100	0	0	0	0
	NBLTR	240	0	0	25	50
	SBLTR	500	0	0	25	25
SE WATER AVENUE/SE CLAY STREET	WBL	200	25	50	25	25
	WBR	200	25	25	75	125
	NBR	180	0	0	25	25
	SBLT	240	25	25	25	75
SE STARK STREET/SE MARTIN LUTHER KING JR BOULEVARD	WBL	80	75	**100**	75	**125**
	WBT	210	25	75	50	100
	SBR	260	25	25	25	50
SE STARK STREET/SE GRAND AVENUE	EBL	50	50	**100**	**75**	**100**
	EBT	210	125	**225**	**225**	**275**
	NBR	220	25	50	25	75

* Note: EB=Eastbound, WB=Westbound, NB=Northbound, SB=Southbound, L=Left, T=Through, R=Right.

FUTURE FREIGHT TRAIN DELAY AND QUEUING

As noted earlier in this document, train movements, train switching and long train lengths along the Union Pacific railroad tracks east of SE Water Avenue near the proposed venue and areas to the north and south through the Central Eastside of Portland block the at-grade road, pedestrian and bikeway crossings at times during the day, making it difficult for people to get around them. This causes long delays for people, with vehicle queues observed during these blockages spilling back from the at-grade crossings onto SE Water Avenue, and onto side streets, most notably the I-5 Off-Ramp at SE Yamhill Street.

Passenger train service through the Central Eastside of Portland is provided via the Amtrak Cascades and Coast Starlight routes. Current schedules have six daily trains crossing near the proposed venue, including around 8:05 a.m., 11:10 a.m., 2:22 p.m., 3:40 p.m., 6:10 p.m. and 7:05 p.m. Freight trains generally do not run on set schedules; however, a 24-hour field survey was conducted at the SE Main Street rail crossing[23] which documented 23 total crossings, including 17 freight trains and 6 passenger trains (see Table 20). This field survey is generally consistent with the crossing inventory data available from the Federal Railroad Administration[24] and summarized earlier in this document. Average gate down times for the crossings were 10 minutes for freight trains and 45 seconds for passenger trains.

As summarized earlier in this document, events at the proposed venue are primarily anticipated to occur during the weekday and weekend evening hours, with attendee and employee arrivals generally occurring between 6:00 p.m. and 9:00 p.m. and departures between 10:00 p.m. and 1:00 a.m. which coincides with 2 scheduled passenger train crossings (i.e.., around 6:00 p.m. and 7:00 p.m.). While freight train activity is unscheduled, 2 freight crossings were recorded between 6:00 p.m. and 9:00 p.m. and 3 were recorded between 10:00 p.m. and 1:00 a.m. during the field survey.

[23] Rail crossing survey at SE Main Street conducted from 12:00 a.m. on Thursday July 13, 2023, to 12:00 a.m. on Friday July 14, 2023.

[24] Crossing Inventory Report, U.S. Department of Transportation, Federal Railroad Administration.

TABLE 20: TRAIN CROSSINGS NEAR THE PROPOSED VENUE

TRAIN TYPE	DOCUMENTED TRAIN CROSSINGS (SE MAIN STREET)							AVERAGE GATE DOWN TIME PER CROSSING
	TOTAL	12-4 A.M.	4-8 A.M.	8 A.M.-12 P.M.	12-4 P.M.	4-8 P.M.	8 P.M.-12 A.M.	
FREIGHT	**17**	5	1	2	3	2	4	10 min
PASSENGER	**6**			2	2	2		45 sec
TOTAL	**23**	**5**	**1**	**4**	**5**	**4**	**4**	7 min 36 sec

Source: DKS Associates field surveys.

The City of Portland will soon be initiating a study of the Central Eastside Rail Crossings to consider solutions that could potentially address the vehicle delay and queuing spillback from the public crossings east of SE Water Avenue. As part of the study, the City could consider an Advance Warning to Avoid Railroad Delay (AWARD) system at key decision points along nearby roadways. A potential location might be along I-84 before the SE Water Avenue exit (i.e., Central Eastside Industrial District exit). The purpose of an AWARD system is to provide advance information on train crossings to travelers, so they choose to use an alternative route before they reach the crossing blockage. The system is non-intrusive to railroad right-of-way and would not directly interface with railroad equipment, and has been successfully implemented, with average crossing delay decreased by 16-19 percent with successful driver diversion to alternate routes[25]. Any consideration of this system would need more extensive study to consider all possible options and weigh benefits and shortfalls and would need approval by the Region Traffic and State Highway Engineers.

TRANSPORTATION SYSTEM RECOMMENDATIONS

Transportation improvements needed to support the proposed venue by 2025 are summarized in Table 21. Several projects were identified in previous studies or plans surrounding the proposed venue. Since the need for these improvements are driven by regional traffic issues and are not directly caused by growth associated with the proposed venue, they are shown in Table 21 as not being triggered by project trips.

At the time of implementation, any proposed mitigations at intersections under ODOT jurisdiction (including the SE Water Avenue & I-84 Off Ramp/SE Yamhill Street intersection) will need to do a Traffic Control Evaluation and be approved by the Region Traffic Engineer and State Highway Engineer. In addition, due to the adjacent rail crossing at the east leg of several of the

[25] Federal Highway Administration. 2001. Intelligent Transportation Systems at Highway-Rail Intersections, FHWA-OP-01-149.

intersections along SE Water Avenue, coordination will be required with the ODOT Rail Crossing Safety Section before any improvements or modifications occur.

A transportation and parking demand management plan was also prepared for the proposed venue consistent with Portland City Code 17.107 and is included in the Appendix. The purpose of the plan is to reduce the impact of events on the transportation system and provide employees and attendees with information and incentives to use transportation methods other than single occupancy vehicles. The plan provides strategies to increase the transit, walking, and biking travel options, along with traffic and ride hailing management techniques to ensure that people who travel via motor vehicle effectively navigate to their parking, drop-off, or pick-up location with fewer delays than what would occur under an unmanaged setting.

TABLE 21: RECOMMENDED TRANSPORTATION SYSTEM IMPROVEMENTS

ID	LOCATION	RECOMMENDED IMPROVEMENT	DEVELOPMENT TRIGGER
Study Intersection Improvements			
1	SE WATER AVENUE & I-5 OFF RAMP/SE YAMHILL STREET	Provide a traffic signal with queue detection and/or advanced warning (Financially Constrained TSP Project and Transportation System Development Charge Project ID 20187). As part of Project ID 10, the east leg of this intersection is to be converted to one-way travel*.	N/A. Need is not triggered by the project trips
2	SE WATER AVENUE/SE SALMON STREET	Provide a curb extension at the southwest corner of the intersection into the on-street parking lane of SE Water Avenue.	Project trips
Corridor Improvements			
3	SE WATER AVENUE ALONG THE SITE FRONTAGE	Provide half street improvements.	Project trips
4	SE SALMON STREET ALONG THE SITE FRONTAGE	Provide half street improvements.	Project trips
5	SE MAIN STREET ALONG THE SITE FRONTAGE	Provide half street improvement.	Project trips
6	SE WATER AVENUE FROM SE STARK STREET TO SE CLAY STREET	Enhance the existing bikeway to include a two-way cycle track (Financially Constrained TSP Project ID 20075). Two-way cycle track included as part of Project 14 in the Central City in Motion Implementation Plan.	N/A. Need is not triggered by the project trips

ID	LOCATION	RECOMMENDED IMPROVEMENT	DEVELOPMENT TRIGGER
7	SE SALMON STREET FROM THE EASTBANK ESPLANADE TO SE 7TH STREET	Provide neighborhood greenway improvements (Financially Constrained TSP Project ID 20174). Project is included as part of Project 9 in the Central City in Motion Implementation Plan.	N/A. Need is not triggered by the project trips
8	CENTRAL EASTSIDE ACCESS AND CIRCULATION ENHANCEMENTS	Improve access and circulation in the Central Eastside by adding new signals and crossings at Hawthorne & Clay ramp, Salmon & Grand, Salmon & MLK, Washington & Grand, Washington & MLK, Ankeny & MLK, Ankeny & Sandy, 16th & Irving, modifying signals at Stark & Grand, Clay & Grand, Mill & MLK, and reconstructing SE Clay St from Water to Grand. (Financially Constrained TSP Project ID 20205). This project is also included on the Citywide Transportation System Development Charge (TSDC) project list at 46 percent eligible (TSDC Project ID 20205).	N/A. Need is not triggered by the project trips
9	SE STARK STREET AND SE WASHINGTON STREET FROM SE WATER AVENUE TO SANDY BOULEVARD	Improve freight and bicycle connectivity and mobility by reconfiguring traffic flow and turning movements on SE Stark and SE Washington Streets (Financially Constrained TSP Project ID 20073). Requires signals and/or crossings at SE Grand and SE MLK as part of the Central Eastside Access and Circulation Enhancements (Project ID 8).	N/A. Need is not triggered by the project trips
10	SE YAMHILL/SE TAYLOR FROM SE WATER AVENUE TO SE GRAND AVENUE	Convert SE Yamhill Street and SE Taylor Street to one-way couplet operation between SE Water Avenue and SE Grand Avenue (Financially Constrained TSP Project ID 20184).	N/A. Need is not triggered by the project trips

Note: * Intersection is under ODOT jurisdiction; At the time of implementation, any recommended mitigations will need to do a Traffic Control Evaluation and be approved by the Region Traffic and State Highway Engineers.

FINDINGS AND CONCLUSIONS: APPROVAL CRITERIA

The following sections summarize the overall findings, which demonstrate that with recommended mitigation measures in place, the conditional use land use application for the proposed venue complies with the transportation-related approval criteria of Portland Zoning Code, Chapter 33.815 Conditional Uses.

- **Section 33.815.215.A (1) – The proposed use is in conformance with the street designations shown in the Transportation Element of the Comprehensive Plan.**

The proposed venue will conform with the existing street designations summarized in Table 1. SE Water Avenue is classified as a Traffic Access Street and includes a Priority Truck Street designation. SE Salmon Street and SE Main Street are classified as Local Service Traffic Streets and include Freight District Street designations since the area is located within the Central Eastside Freight District. These streets will continue to fully accommodate truck movements without impeding their mobility and will fully accommodate all modes. Designated truck loading areas will be provided along SE Main Street and have been sited away from the primary pedestrian and bike routes along SE Water Avenue and SE Salmon Street.

The street frontages of the proposed venue will be improved to feature wider sidewalks corridors on SE Main Street and SE Salmon Street, consistent with their local street designations in a Pedestrian District and along SE Water Avenue, consistent with its Major City Walkway and Neighborhood Main Street designations.

Cyclists are expected to utilize the Eastbank Esplanade and Major City Bikeways along SE Water Avenue and SE Salmon Street, or City Bikeway along SE Main Street to travel to/from areas surrounding the proposed venue.

- **Section 33.815.215.A (2) – If the proposed use will be located in an industrial zone, it will not have a significant adverse effect on truck and freight movement.**

The proposed venue is not expected to significantly impact truck movement and will protect the important freight connection between the Central Eastside and nearby regional truck routes along Interstate 5 and OR 99E. SE Water Avenue is a Priority Truck Street and all remaining streets near the proposed venue include Freight District Street designations since the area is located within the Central Eastside Freight District. These streets will continue to fully accommodate truck movements without impeding their mobility, although they will fully accommodate all modes particularly with pedestrians and cyclists crossing SE Water Avenue at the SE Salmon Street intersection, which is a Major City Walkway and Major City Bikeway. The loading dock and staging area, and ride hailing loading zones for the proposed venue will be located away from the SE Water Avenue Priority Truck Street to allow efficient passage for large vehicles. In general, trucks as large as WB-67 are expected to arrive at the venue between 7:00 a.m. and 12:00 p.m. and depart within two hours of

the event conclusion. Turning radius exhibits were evaluated for the inbound and outbound truck route to determine appropriate design widths. A spotter should be present to assist with the inbound truck maneuver at the SE Water Avenue/SE Main Street intersection to ensure it can be done safely.

- **Section 33.815.215.A (3) (a) – The transportation system is capable of supporting the proposed use in addition to the existing uses in the area. Evaluation factors include safety, street capacity, level of service, connectivity, transit availability, availability of pedestrian and bicycle networks, on-street parking impacts, access restrictions, neighborhood impacts, impacts on pedestrian, bicycle, and transit circulation. Evaluation factors may be balanced; a finding of failure in one or more factors may be acceptable if the failure is not a result of the proposed development, and any additional impacts on the system from the proposed development are mitigated.**

The Transportation Impact Study found that with the recommended improvements, the transportation system will be capable of safely supporting the proposed venue, in addition to accommodating the existing uses. The proposed venue is very accessible to pedestrians and bicyclists and is well-served by a network of continuous sidewalks and bike facilities on the surrounding streets between nearby existing private vehicle parking, bike parking, ride hailing loading zones or transit stops. The proposed venue is also adjacent to existing bikeways along the Eastbank Esplanade, SE Water Avenue and SE Salmon Street.

Current transit service near the proposed venue is primarily accessed via stops located on SE Grand Avenue and SE Martin Luther King Jr Boulevard between SE Salmon Street and SE Taylor Street, on the SE Madison Street and SE Hawthorne Boulevard viaducts (accessed via stairs from SE Water Avenue), on the SE Morrison Street and SE Belmont Street viaducts (accessed via stairs from SE Water Avenue), along SW 1st Avenue in downtown Portland across the Morrison Bridge, and near SE Tilikum Way. Event attendees and employees who utilize transit for travel to and from the venue would primarily utilize SE Water Avenue, SE Salmon Street and the Eastbank Esplanade to access transit services before and after events. Current schedules indicate that the TriMet Routes 6, 14 and 15 and MAX light-rail service near the proposed venue extends beyond the conclusion of a typical event (i.e., expected to be 11:00 p.m. or later for most events).

The system evaluation found no street capacity or level of service impacts with the proposed venue, as shown in Table 17, 18 and 19. Existing train movements, train switching and long train lengths along the Union Pacific railroad tracks east of SE Water Avenue near the proposed venue and areas to the north and south through the Central Eastside of Portland block the at-grade road, pedestrian and bikeway crossings at times during the day, making it difficult for people to get around them. This causes long delays for people, with vehicle queues observed during these blockages spilling back from the at-grade crossings onto SE Water Avenue, and onto side streets, most notably the I-5 Off-Ramp at SE Yamhill Street. The City of Portland will soon be initiating a study of the Central Eastside Rail Crossings to consider solutions that could potentially address the vehicle delay and queuing spillback from the public crossings east of SE Water Avenue.

Improvements to adjacent street frontages will occur and a transportation and parking demand management plan prepared for the proposed venue will enhance access, safety and function for users of all modes. The City also has two planned projects to enhance the bikeways on SE Water Avenue and SE Salmon Street adjacent to the proposed venue. These planned projects include a two-way cycle track on the west side of SE Water Avenue (i.e., along the frontage of the proposed venue) from SE Stark Street to SE Clay Street, and neighborhood greenway improvements along SE Salmon Street from the Eastbank Esplanade to SE 7th Avenue.

- **Section 33.815.215.A (3) (b) – Measures proportional to the impacts of the proposed use are proposed to mitigate on- and off-site transportation impacts. Measures may include transportation improvements to on-site circulation, public street dedication and improvement, private street improvements, intersection improvements, signal or other traffic management improvements, additional transportation and parking demand management actions, street crossing improvements, improvements to the local pedestrian and bicycle networks, and transit improvements.**

Transportation improvements needed to support the proposed venue by 2025 are summarized in Table 21. The Transportation Impact Study found no off-site transportation impacts that result from the proposed venue. On-site transportation impacts resulting from new site generated trips will be mitigated with improved street frontages to feature wider sidewalks, to include 12-foot sidewalk corridors on SE Main Street and SE Salmon Street, consistent with their local street designations in a Pedestrian District and a 15-foot sidewalk corridor along SE Water Avenue, consistent with its Major City Walkway and Neighborhood Main Street designations. A curb extension will be provided at the southwest corner of the SE Water Avenue/SE Salmon Street intersection to provide safe and convenient crossings of SE Water Avenue for pedestrians walking between nearby destinations.

A transportation and parking demand management plan was also prepared for the proposed venue to reduce the impact of events on the transportation system and provide employees and attendees with information and incentives to use transportation methods other than single occupancy vehicles. The plan provides strategies to increase the transit, walking, and biking travel options, along with traffic and ride hailing management techniques to ensure that people who travel via motor vehicle effectively navigate to their parking, drop-off, or pick-up location with fewer delays than what would occur under an unmanaged setting.

Several projects were also identified in previous studies or plans surrounding the proposed venue. Since the need for these improvements are driven by regional traffic issues and are not directly caused by growth associated with the proposed venue, they are shown in Table 21 as not being triggered by project trips.

- **Section 33.815.215.A (3) (c) – Transportation improvements adjacent to the development and in the vicinity needed to support the development are available or**

will be made available when the development is complete or, if the development is phased, will be available as each phase of the development is completed.

Transportation improvements that are needed to support the proposed venue by 2025 are summarized in Table 21 and included within the transportation and parking demand management plan for the proposed venue. These improvements will be made when the development is completed in 2025.

Several projects were also identified in previous studies or plans surrounding the proposed venue. Since the need for these improvements are driven by regional traffic issues and are not directly caused by growth associated with the proposed venue, they are shown in Table 21 as not being triggered by project trips and will be completed later by the City as funding becomes available.

APPENDIX

CONTENTS

SECTION 1: TRANSPORTATION AND PARKING DEMAND MANAGEMENT PLAN

TECHNICAL MEMORANDUM

DATE: December 11, 2023

TO: Geoffrey Judd and Michael Pina | PBOT

FROM: Kevin Chewuk and Brianna Velasquez | DKS Associates

SUBJECT: Portland Central Eastside Venue
Transportation and Parking Demand Management Plan 22048-000

A transportation and parking demand management (TDM) plan was prepared for the proposed Central Eastside Venue consistent with requirements in Portland City Code 17.107. The purpose of the plan is to reduce the impact of events on the transportation system and provide employees and attendees with information and incentives to use transportation methods other than single occupancy vehicles. The plan provides strategies to increase the transit, walking, and biking travel options, along with traffic and ride hailing management techniques to ensure that people who travel via motor vehicle effectively navigate to their parking, drop-off, or pick-up location with fewer delays than what would occur under an unmanaged setting.

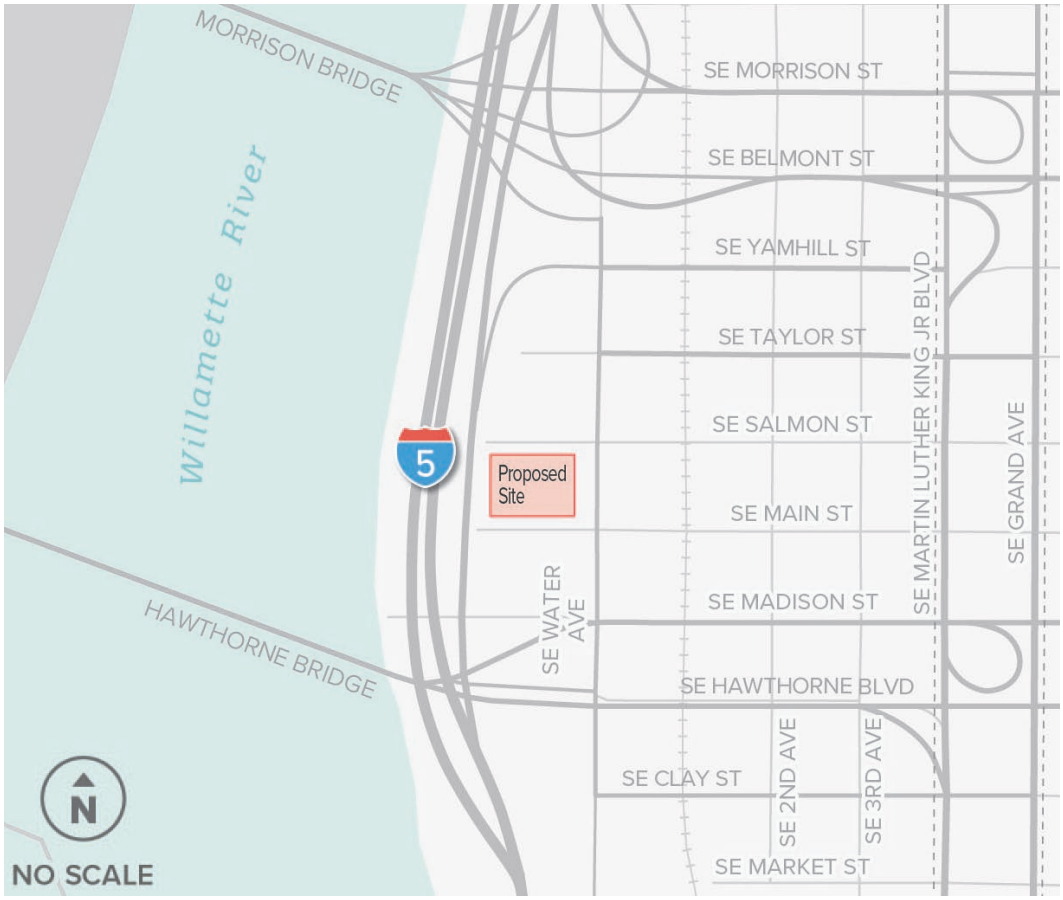
The TDM plan is a "living" document, that lays out a monitoring and data collection process that will provide information on how effective the strategies are in achieving mode split performance targets that are identified in this plan. Adjustments to the plan may be needed as travel behaviors, transportation facilities and technologies evolve to ensure this TDM plan continues to show progess towards meeting the idenified performance targets.

PROJECT DESCRIPTION

PROJECT LOCATION

The proposed venue, shown in Figure 1, is located in the Central Eastside industrial area of inner southeast Portland along SE Water Avenue and is generally bounded by SE Salmon Street to the north, SE Main Street to the south, Interstate 5 (I-5) and the Willamette River to the west and the SE Water Avenue to the east.

FIGURE 1: PROPOSED VENUE LOCATION



SITE CONDITIONS AND LAND USES

The proposed site is currently vacant and is surrounded by surface parking lots and industrial buildings. Adjacent property owners are ODOT and Prosper Portland to the north, south and west, and a collection of light industrial users to the east. The area surrounding the proposed venue is zoned exclusively General Industrial 1 (IG1) and is located within the Central City Plan District.

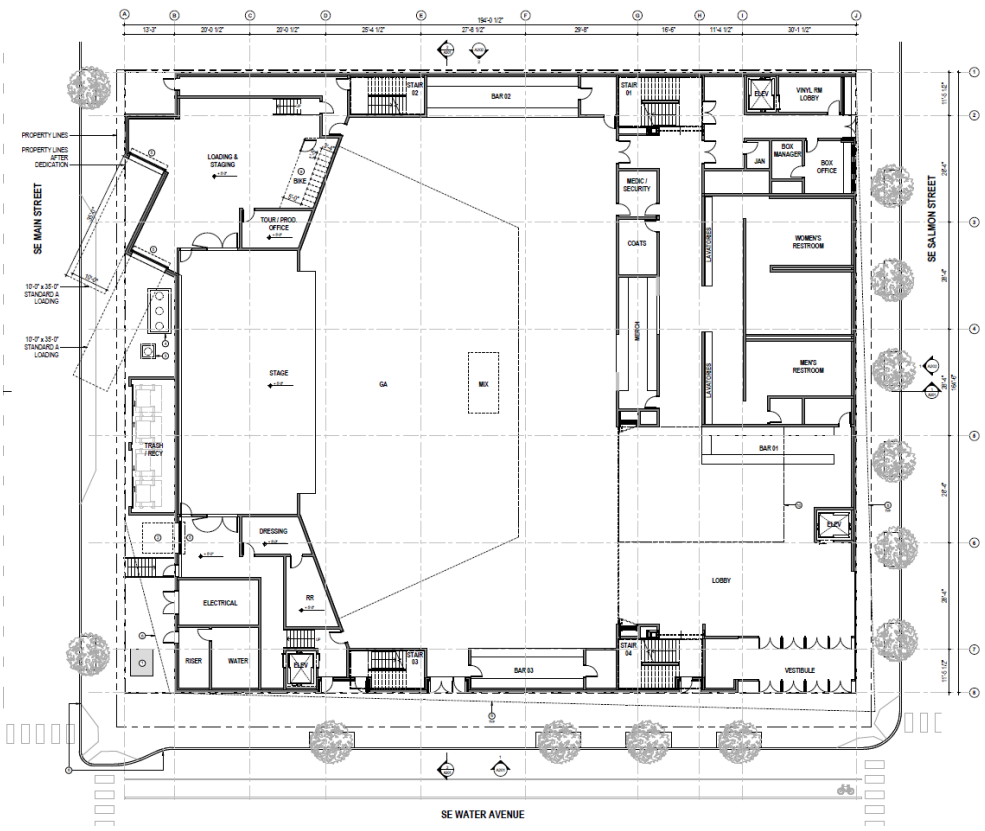
PROPOSED VENUE SITE PLAN

The proposed venue site plan, shown in Figure 1, will consist of a new event venue with a capacity of 3,500 spectators, hosting concerts and other special events. The proposed use is Major Event Entertainment, which is a conditional use in the IG1 zone. The proposed building area will be approximately 59,000 gross square feet distributed over three stories. No vehicle parking is currently planned on site.

The primary general admission entry point for the proposed venue will be located along the northeast corner of the building near the SE Water Avenue/SE Salmon Street intersection. Multiple general admission exit points will be located along the easterly face of the building to SE Water Avenue. A VIP entry and exit point will be located on the northwest corner of the building on SE Salmon Street.

The loading dock and staging area for the proposed venue will be located along the south building frontage of the proposed venue. The truck loading dock will have two off-street loading bays, although loading will partially occur on-street. Immediate access to the truck loading dock and staging area will be provided via SE Main Street, just west of the intersection with SE Water Avenue. One bus for an event will be staged along SE Main Street, and to the extent that a given show has more than one bus, the additional buses will be staged elsewhere on private property.

FIGURE 2: PROPOSED VENUE SITE PLAN



EVENT CHARACTERISTICS

The proposed venue will host 110 concerts and 18 special events per year, for an estimated total of 128 events annually (see Table 1). The proposed venue will have a maximum attendance capacity of 3,500 people. Of the 110 concerts at the venue, an estimated 45 will sell to the maximum capacity. The typical (i.e., average) attendance for concerts and special events will be 2,100 (i.e., assumed to be 60 percent of the maximum capacity) and 500 people, respectively.

Sold-out concerts require up to 350 employees, including 150 venue staff (i.e., 140 staff directly involved in the venue operation and 10 management staff), and up to 200 non-venue employees (e.g., staff of the artist's touring group, food and beverage staff, etc.). The average concert requires up to 250 employees, including 130 venue employees, and as many as 120 non-venue employees.

Events are primarily anticipated to occur during the weekday and weekend evening hours. Typically, the doors for concerts will open at 7:00 p.m. and the show will start at approximately 8:00 p.m. and conclude at approximately 11:00 p.m. or later.

TABLE 1: EVENT CHARACTERISTICS OF PROPOSED VENUE

EVENT TYPE	TOTAL EVENTS	ATTENDANCE	WEEKDAY DAYTIME	WEEKDAY EVENING	WEEKEND EVENING
CONCERTS	**110**	2,100 (average) 3,500 (maximum)		X	X
SPECIAL EVENT	**18**	500	X	X	X
TYPICAL CONCERT SCHEDULE					
7:00 P.M.	Doors open to the venue				
8:00 P.M.	Concert begins (opening act)				
11:00 P.M.	Concert ends				

Source: Venue Operator, 2023

PROJECT TRAVEL CHARACTERISTICS

This section summarizes the anticipated travel characteristics of event attendees and employees.

MODE CHOICE OF TRIPS

Due to the proposed venue's location in the Central City, and proximity to multiple transit lines and high-quality pedestrian and bicycle facilities, 20 percent of the trips generated by the proposed venue were assumed to occur via transit (13 percent), walking (2 percent) or biking or e-scooter (5 percent), with the remaining 80 percent using private vehicles (50 percent) or ride hailing vehicles (30 percent). These mode choice estimates were based on data from similar event venues and modeling data provided by PBOT[1]. Given the typical event will occur in the evening and conclude at approximately 11:00 p.m. or later, the mode choice estimates were weighted more towards data from similar venues, with more of the trips assumed to occur via private and ride hailing vehicles compared to the modeling data provided by PBOT (i.e., 80 percent compared to 63 percent of the total trips), while fewer trips were assumed to occur via walking or biking (7 percent compared to 24 percent of the total trips). No adjustments were made to the assumed transit usage (i.e., 13 percent of the total trips).

TRIPS GENERATED BY SOLD-OUT EVENTS

The total estimated one-way trips generated by the proposed venue during sold-out events (i.e., 3,500 attendees and 350 employees) are shown in Table 2. As shown, the proposed venue is estimated to generate 2,242 one-way trips, including 1,917 one-way attendee trips and 325 one-way employee trips. This includes 501 one-way transit trips, 77 one-way walking trips, 135 one-way biking trips, 58 one-way e-scooter trips, 920 one-way private vehicle trips and 552 one-way ride hail trips.

[1] Based on mode splits provided by the venue operator from similar event venues in Sacramento, California and Philadelphia, Pennsylvania, and modeling data provided by PBOT and resulting mode splits utilized for the OMSI Central City Master Plan. The OMSI Central City Master Plan assumed 63 percent of the total trips occur via private and ride hailing vehicles, while the estimates at similar event venues assume between 85 and 91 percent of the total trips occur via these modes. Transit ridership is assumed as 13 percent of the OMSI trips and up to 12 percent of the similar venue trips, while walking and biking were assumed as 24 percent of the OMSI trips and up to 3 percent of the similar venue trips.

TABLE 2: ONE-WAY TRIPS FOR SOLD-OUT EVENTS

TRAVELER TYPE	MODE SPLIT	ATTENDEE TRIPS (ONE-WAY)		EMPLOYEE TRIPS (ONE-WAY)		ATTENDEE AND EMPLOYEE TRIPS (ONE-WAY)	
		PEOPLE TRIPS	TOTAL TRIPS	PEOPLE TRIPS	TOTAL TRIPS	PEOPLE TRIPS	TOTAL TRIPS
TRANSIT TRIPS	13%	455	455	46	46	**501**	**501**
WALKING TRIPS	2%	70	70	7	7	**77**	**77**
BIKING TRIPS	3.5%	123	123	12	12	**135**	**135**
E-SCOOTER TRIPS	1.5%	53	53	5	5	**58**	**58**
PRIVATE VEHICLE TRIPS	50%	1,750	761 *	175	159 *	**1,925**	**920** *
RIDE HAILING VEHICLE TRIPS **	30%	1,050	457 *	105	95 *	**1,155**	**552** *
TOTAL	**100%**	**3,500**	**1,917**	**350**	**325**	**3,850**	**2,242**

Notes: * Average vehicle occupancy was estimated at 2.3 persons per vehicle for attendees and 1.1 persons per vehicle for employees.

** The one-way ride hail trips represent an inbound or outbound trip with attendees or employees. Each one-way ride hail trip will also include an inbound or outbound trip with just the driver (i.e., 552 trips).

Pre-event attendee arrivals for a sold-out event are estimated at 35 percent between 6-7 p.m. (i.e., 1,225 people), 55 percent between 7-8 p.m. (i.e., 1,925 people) and 10 percent between 8-9 p.m. (i.e., 350 people), while post-event attendee departures for a sold-out event are estimated at 12 percent between 10-11 p.m. (i.e., 420 people), 83 percent between 11 p.m.-12 a.m. (i.e., 2,905 people) and 5 percent between 12-1 a.m. (i.e., 175 people)[2].

Employee arrival and departure estimates are based on typical schedules provided by the venue operator. Venue operation staff (i.e., 340 employees for a sold-out event) typically arrive between 6-7 p.m. for evening events, with 70 employees departing between 11 p.m.-12 a.m., and 270 employees departing between 12-1 a.m. All 10 venue management staff work daily from 10:00 a.m. to 7:00 p.m.

Based on programming information provided by the venue operator, a system peak hour was established for the pre-event period from 7:00 – 8:00 p.m. and post-event period from 11:00 p.m. – 12:00 a.m. As shown in Table 3, the proposed venue is estimated to generate 1,318 pre-event peak and 2,054 post-event peak trips, including 387 pre-event peak and 595 post-event peak transit, walking, biking, or e-scooter trips, and 931 pre-event peak and 1,459 post-event peak motor vehicle trips.

[2] Based on information provided by the venue operator from similar venues.

TABLE 3: PEAK HOUR TRIPS FOR SOLD-OUT EVENTS

TRAVELER TYPE	PRE-EVENT PEAK HOUR (7-8 P.M.)			POST-EVENT PEAK HOUR (11 P.M. -12 A.M.)		
	IN	OUT	TOTAL	IN	OUT	TOTAL
ATTENDEES ARRIVING/DEPARTING **	1,925	0	1,925	0	2,905	2,905
EMPLOYEES ARRIVING/DEPARTING **	0	10	10	0	70	70
TOTAL ARRIVING/DEPARTING	**1,925**	**10**	**1,935**	**0**	**2,975**	**2,975**
TOTAL ATTENDEE TRIPS	1,055	251	1,306	379	1,591	1,970
TOTAL EMPLOYEE TRIPS	3	9	12	19	65	84
TOTAL TRIPS (ATTENDEE AND EMPLOYEE)	**1,057**	**260**	**1,318**	**398**	**1,656**	**2,054**
TRANSIT TRIPS (13 PERCENT)	*250*	*1*	*252*	*0*	*387*	*387*
WALKING TRIPS (2 PERCENT)	*39*	*0*	*39*	*0*	*60*	*60*
BIKING/E-SCOOTER TRIPS (5 PERCENT)	*96*	*1*	*97*	*0*	*149*	*149*
*PRIVATE VEHICLE TRIPS (50 PERCENT) **	*418*	*5*	*423*	*0*	*663*	*663*
*RIDE HAILING VEHICLE TRIPS (30 PERCENT) **	*254*	*254*	*508*	*398*	*398*	*796*

Notes: * Average vehicle occupancy was estimated at 2.3 persons per vehicle for attendees and 1.1 persons per vehicle for employees.

** Estimates derived from information provided by the venue operator.

MODE SPLIT PERFORMANCE TARGETS

Long term modal split targets have been established by the City of Portland for new development to work towards achieving. The City of Portland mode share targets for the Central City suggest that 85 percent of the daily trips by 2035 should be via walking, biking, transit or carpool[3], and 15 percent via single-occupant vehicles.

The mode share targets also suggest that 70 percent of commuter trips by 2035 should be via walking (7.5 percent), biking (25 percent), transit (25 percent), and carpool (12.5 percent), with the remaining 30 percent of commuter trips suggested to occur via single-occupant vehicles[4].

Given the typical event will occur in the evening and conclude at approximately 11:00 p.m. or later, the baseline mode share estimates for the proposed venue assume 20 percent of the trips by 2025 will occur via transit (13 percent), walking (2 percent) or biking or e-scooter (5 percent), and another 30 percent via ride hailing vehicles. While the remaining 50 percent of the proposed venue trips were estimated to occur via private vehicles, many will occur in vehicles with multiple occupants, particularly attendee trips (i.e., average vehicle occupancy was estimated at 2.3 persons per vehicle for attendees and 1.1 persons per vehicle for employees).

[3] Portland Transportation System Plan, Policy 9.49.e.

[4] Portland Transportation System Plan, Policy 9.49.f.

TRANSPORTATION AND PARKING DEMAND MANAGEMENT STRATEGIES

This section includes a set of transportation and parking demand management strategies designed to help the proposed venue achieve the identified mode split performance targets.

TRANSIT

EXISTING TRANSIT FACILITIES

All streets near the proposed venue are designated as Local Service Transit Streets. The closest designated Major Transit Priority streets to the proposed venue include the SE Morrison Street and SE Belmont Street viaducts to the north, SE Madison Street and SE Hawthorne Boulevard viaducts to the south, and SE Grand Avenue and SE Martin Luther King Jr Boulevard to the east.

Transit service is provided near the proposed venue by the Portland Streetcar- A and B Loop and TriMet Route 6 – Martin Luther King Jr Blvd, Route 10 – Harold St, Route 14 – Hawthorne, and Route 15 – Belmont/NW 23rd. All of these transit options are within a 10-minute walk from the proposed venue.

The Portland Streetcar- A and B Loop, connects riders to the Pearl District, Lloyd District and Portland State University, with stops near the proposed venue on SE Grand Avenue and SE Martin Luther King Jr Boulevard between SE Salmon Street and SE Taylor Street. The A Loop runs clockwise while the B Loop runs counterclockwise, with service every 20 minutes, most of the day, every day. Existing streetcar service near the proposed venue begins around 7:30 a.m. on weekdays and weekends and ends around 10:30 p.m. on weekdays and 10:00 p.m. on weekends.

Stops for TriMet Routes 6, 10 and 14 are located on the SE Madison Street and SE Hawthorne Boulevard viaducts (accessed via stairs from SE Water Avenue). TriMet Route 6 provides bus service every 15 minutes for most of the day, every day between downtown Portland and Jantzen Beach. TriMet Routes 10 and 14 provides bus service between downtown Portland and the Lents neighborhood. Route 14 provides bus service every 15 minutes for most of the day, every day while Route 10 provides bus service about every 45 minutes between 6:00 a.m. and 8:00 p.m. on weekdays, between 10:00 a.m. and 6:00 p.m. on weekends.

Stops for TriMet Route 15 are located on the SE Morrison Street and SE Belmont Street viaducts (accessed via stairs from SE Water Avenue), with service between NW 23rd Avenue, downtown Portland, and the Gateway Transit Center. Service is offered every 15 minutes for most of the day, every day.

The MAX Blue and Red Lines also have stops along SW 1st Avenue in downtown Portland across the Morrison Bridge, and the MAX Orange Line has a stop near SE Tilikum Way. These stops are within a 15 to 20-minute walk from the proposed venue. The MAX provides service every 15 minutes for most of the day, every day. All of these routes provide transfer opportunities to other MAX light-rail and TriMet bus routes in downtown Portland along the 5th and 6th Avenue transit mall.

TRANSIT TRAVEL DEMAND AND ACCESS

Based on the project travel characteristics, it is anticipated that a sold-out maximum capacity event at the venue would generate approximately 501 one-way transit passenger trips during both the pre-event and post-event time periods. This would entail 501 passenger alightings during the pre-event period and 501 passenger boardings during the post-event period.

Current transit service near the proposed venue is primarily accessed via stops located on SE Grand Avenue and SE Martin Luther King Jr Boulevard between SE Salmon Street and SE Taylor Street, on the SE Madison Street and SE Hawthorne Boulevard viaducts (accessed via stairs from SE Water Avenue), on the SE Morrison Street and SE Belmont Street viaducts (accessed via stairs from SE Water Avenue), along SW 1st Avenue in downtown Portland across the Morrison Bridge, and near SE Tilikum Way. Event attendees and employees who utilize transit for travel to and from the venue would primarily utilize SE Water Avenue, SE Salmon Street and the Eastbank Esplanade to access transit services before and after events.

Current schedules indicate that the TriMet Routes 6, 14 and 15 and MAX light-rail service near the proposed venue extends beyond the conclusion of a typical event (i.e., expected to be 11:00 p.m. or later for most events). However, current schedules for the Portland Streetcar- A and B Loop and TriMet Route 10 service near the proposed venue end prior to the conclusion of a typical event (i.e., expected to be 11:00 p.m. or later for most events). Therefore, event attendees who desire to utilize these routes for their return trip home would need to leave the event early in order to catch the last trip of the evening.

TRANSIT TDM STRATEGIES

The strategies summarized below are recommended to promote transit usage for events.

A.1: Promote use of park-and-ride facilities

Driving is currently estimated to be the preferred means of travel for attendees (i.e., mode shares of 50% for private vehicles and 30% for ride hailing). To increase the share of people taking transit, and reduce local parking impacts, the venue operator and TriMet should promote regional park-and-rides and educate attendees on the availability of parking at the locations that provide direct MAX or bus service to/from stops near the venue.

Key Actions

- Identify park-and-ride facilities that provide direct MAX or bus service and have available parking capacity for fans (Lead: TriMet).
- Promote and educate attendees about the use of key park-and-ride facilities (Lead: Venue operator).

A.2: Encourage transit ridership with marketing

It is recommended that TriMet and the venue operator provide marketing information about nearby MAX and bus services to increase ridership.

Key Actions

- Update website and communications to include more detailed information on transit services to the venue. (Lead: Venue operator).

PEDESTRIAN TRAVEL

The proposed venue is estimated to generate a significant amount of new walking trips. These trips are expected to occur both as primary trips between nearby origins and destinations (e.g., residences, hotels, restaurants/bars), and as secondary trips at the beginning or end of trips from nearby existing private vehicle parking or transit stops.

EXISTING PEDESTRIAN NETWORK

The proposed venue is very accessible to pedestrians and is well-served by a network of continuous sidewalks on the surrounding streets. SE Water Avenue provides sidewalks on both sides and is classified as a Major City Walkway. It connects pedestrians to the Major City Walkways along SE Salmon Street, SE Madison Street viaduct (accessed via stairs) and SE Hawthorne Boulevard viaduct (accessed via stairs) and City Walkways along SE Yamhill Street, SE Taylor Street and SE Clay Street.

The Eastbank Esplanade traverses through the proposed venue, extending for nearly two miles along the Willamette River, from the Steel Bridge to SE Caruthers Street. This route connects pedestrians to several crossing opportunities to the west side of the river, including the Tilikum Crossing, Hawthorne Bridge, Morrison Bridge, Burnside Bridge and Steel Bridge. Pedestrians can currently access the Eastbank Esplanade from SE Salmon Street and SE Main Street. There is also pedestrian access to the Eastbank Esplanade via ramps from the Morrison Bridge and Hawthorne Bridge.

PEDESTRIAN TRAVEL DEMAND AND ACCESS

An estimated 3,500 attendees and 350 employees will access the venue during a sold-out maximum capacity event and utilize the existing pedestrian facilities as they travel from nearby land uses, transit stops, or parking facilities. An estimated 2 percent of event attendees and employees are expected to walk to and from the venue from nearby land uses, or 77 trips during both the pre-event and post-event time periods.

Higher pedestrian volumes are also expected on pedestrian facilities between the venue and nearby existing private vehicle parking, ride hailing loading zones or transit stops. These include sidewalks on SE Water Avenue, SE Salmon Street, SE Main Street, and the Eastbank Esplanade, as well as crossings at the SE Water Avenue/SE Salmon Street and SE Water Avenue/SE Main Street intersections.

The primary general admission entry point for the proposed venue will be located along the northeast corner of the building near the SE Water Avenue/SE Salmon Street intersection. Multiple

general admission exit points will be located along the easterly face of the building to SE Water Avenue. A VIP entry and exit point will be located on the northwest corner of the building on SE Salmon Street. Prior to events, attendee queueing will be accommodated via the sidewalk along the SE Salmon Street and SE Water Avenue frontage of the venue.

The street frontages of the proposed venue will be improved to feature wider sidewalks, to include 12-foot sidewalk corridors on SE Main Street and SE Salmon Street, consistent with their local street designations in a Pedestrian District and a 15-foot sidewalk corridor along SE Water Avenue, consistent with its Major City Walkway and Neighborhood Main Street designations.

PEDESTRIAN TDM STRATEGIES

The strategies summarized below are recommended to promote pedestrian travel for events.

B.1: Temporarily close SE Salmon Street west of SE Water Avenue during events. Further study feasibility of a permanent closure.

A temporary closure to vehicles is recommended along SE Salmon Street west of SE Water Avenue during events. This temporary closure would reduce conflicts between pedestrians and vehicles and create a safer plaza-like environment. It would also provide space for temporary bicycle parking and capacity for parking dockless e-scooters. The space could also be activated before and after events to encourage attendees to linger and reduce the rush of people departing.

A permanent closure should also be further studied. A permanent closure would provide space for an increase in permanent bicycle parking, additional or relocated BIKETOWN hubs, and additional capacity for parking dockless shared vehicles, such as e-scooters. The space would also provide an enhanced public space year-round and would help facilitate the first segment of the City's proposed neighborhood greenway improvements along SE Salmon Street that will extend from the Eastbank Esplanade to SE 7th Avenue.

Key Actions

- Study the feasibility of a temporary closure of both lanes of SE Salmon Street west of SE Water Avenue during events (Lead: Venue operator, PBOT).
- Further study feasibility of a permanent closure of both lanes of SE Salmon Street west of SE Water Avenue (Lead: Venue operator, PBOT).

B.2: Temporarily close SE Main Street west of SE Water Avenue during events.

A temporary closure to vehicles is recommended along SE Main Street west of SE Water Avenue during events to facilitate event loading and staging. This temporary closure would also reduce conflicts between pedestrians and vehicles and would provide space for temporary bicycle parking and capacity for parking dockless e-scooters.

Key Actions

- Study the feasibility of a temporary closure of both lanes of SE Main Street west of SE Water Avenue during events (Lead: Venue operator, PBOT)

B.3: Review street lighting in areas surrounding the venue. Install additional pedestrian-scaled lighting to ensure nighttime visibility and safety.

Although not all attendees walk to events at the venue, all attendees walk or use personal mobility devices as they are entering or exiting the venue. Large volumes of pedestrians after events, mixed with private vehicles, ride-hailing activity, and bikes/e-scooters, presents significant traffic and safety challenges. Although street lighting is present, an opportunity exists to further improve safety for attendees along nearby roadways.

Key Actions

- Review street lighting levels near the venue and identify areas that would benefit from additional pedestrian-scaled lighting to ensure nighttime visibility and safety (Lead: PBOT).

B.4: Support and implement planned improvements near the venue.

Several key projects are currently in the planning and design process. For a detailed list, see the Transportation Impact Study for the Portland Central Eastside Venue.

Key Actions

- Implement planned improvements near the venue (Lead: PBOT, ODOT; Support: Venue operator).

BICYCLE TRAVEL

The proposed venue is estimated to generate a significant number of new bicycling trips between locations throughout Portland.

EXISTING BICYCLE NETWORK

SE Water Avenue provides bike lanes and is classified as a Major City Bikeway. It connects bicyclists to the Major City Bikeways along SE Salmon Street, SE Morrison Street and SE Belmont Street (under the Morrison Bridge viaduct), and SE Madison Street viaduct and SE Hawthorne Boulevard viaduct (accessed via the Eastbank Esplanade ramps) and City Bikeway along SE Main Street (west of SE Water Avenue), SE Madison Street (under the SE Madison Street viaduct), and SE Clay Street. SE Water Avenue, which turns into SE 4th Avenue south of SE Caruthers Street, provides bicyclists with a connection to the Springwater Corridor trail.

Buffered bicycle lanes are provided on the SE Madison Street viaduct and SE Hawthorne Boulevard viaduct, connecting the Eastbank Esplanade and Hawthorne Bridge to SE Grand Avenue and neighborhoods further to the east. SE Salmon Street also provides a Major City bike route between the Eastbank Esplanade and southeast Portland, although it does not currently have any bike facilities or markings along the segment adjacent to the proposed venue. The Eastbank Esplanade

also provides bicyclists an off-street connection between the Steel Bridge and SE Caruthers Street (just south of the Tilikum Crossing), and to the multi-use path crossings to the west side of the Willamette River on the Tilikum Crossing, Hawthorne Bridge, Morrison Bridge and Steel Bridge. These are all regional commuting and recreational routes for bicyclists and there are high bicycle volumes observed on each.

BICYCLE TRAVEL DEMAND AND ACCESS

An estimated 3.5 percent of event attendees and employees are expected to bike to and from the venue, or 135 trips during both the pre-event and post-event time periods for a sold-out maximum capacity event. Most cyclists are expected to utilize the Eastbank Esplanade, with 88 cyclists traveling along it during both the pre-event and post-event time periods. Cyclists are also expected to utilize the bike routes along SE Water Avenue (i.e., 27 during both the pre-event and post-event time periods) and SE Salmon Street (i.e., 20 during both the pre-event and post-event time periods) to travel to/from areas to the north and east of the proposed venue.

It is expected that cyclists will primarily access bike parking along SE Salmon Street given its designation as a Major City Bikeway or SE Main Street given its designation as a City Bikeway and their connections to the Eastbank Esplanade. Bike trips are estimated to account for 3.5 percent of the total trips for the proposed venue, meaning for a sold-out concert up to 135 bike parking spaces would be needed, including 123 spaces for attendees and 12 spaces for employees. Current bicycle parking standards require the proposed venue to provide 6 long-term and 32 short-term bicycle parking spaces (based on 1,280 seats)[5], or 97 fewer spaces than the estimated demand.

The City has two planned projects to enhance the bikeways on SE Water Avenue and SE Salmon Street adjacent to the proposed venue. These planned projects include a two-way cycle track on the west side of SE Water Avenue (i.e., along the frontage of the proposed venue) from SE Stark Street to SE Clay Street, and neighborhood greenway improvements along SE Salmon Street from the Eastbank Esplanade to SE 7th Avenue.

BICYCLE TDM STRATEGIES

The strategies summarized below are recommended to promote bicycle and e-scooter travel for events.

C.1: Provide temporary bike parking on SE Salmon Street west of SE Water Avenue

Provide temporary bike parking for attendees along the closed segment of SE Salmon Street west of SE Water Avenue during events. The parking should be monitored and located near the venue entrances. Current estimates suggest up to 123 bike parking spaces would be needed for attendees

[5] Title 33 (33.266.200), based on the Major Event Entertainment use.

during sold-out events. Ensure enough width remains along SE Salmon Street to provide fire vehicle access, if required.

Key Actions

- Provide temporary bike parking on SE Salmon Street west of SE Water Avenue (Lead: Venue operator).

C.2: Provide permanent bike parking near the venue.

Further evaluate, identify, and install permanent bike racks and/or on-street bike corrals near the venue. The closest BIKETOWN hubs at SE Taylor Street and SE Clay Street have space for a total of 26 bikes. Permanent and secured bike parking is also recommended for employees, with current estimates suggesting up to 12 bike parking spaces are needed for employees during sold-out events.

Key Actions

- Further evaluate, identify, and install permanent bike racks and/or on-street bike corrals near the venue (Lead: Venue operator; Support: PBOT).
- Evaluate provision of additional BIKETOWN parking (Lead: Venue operator, BIKETOWN).
- Provide permanent and secure bike parking for employees (Lead: Venue operator).

C.3: Designate e-scooter parking areas.

E-scooters offer another non-driving option for attendees and can provide a crucial first and last-mile connection to off-street parking, transit, and nearby destinations. By creating a designated space for people to park e-scooters and prohibiting sidewalk parking, the venue can encourage e-scooter use, while mitigating sidewalk congestion and safety concerns. If managed correctly, e-scooter parking can be accommodated in a relatively small area and can also be flexibly deployed based on anticipated need and integrated with temporary bike parking operations, allowing for efficient management and storage of e-scooters.

Key Actions

- Identify and designate e-scooter parking areas (Lead: PBOT, E-scooter companies; Support: Venue operator).
- Utilize smartphone apps and geo-fencing function to direct users to dedicated e-scooter parking locations and prohibit parking along sidewalks near the venue (Lead: E-scooter companies).

C.4: Support and implement planned improvements near the venue.

Several key projects are currently in the planning and design process. For a detailed list, see the Transportation Impact Study for the Portland Central Eastside Venue.

Key Actions

- Implement planned improvements near the venue (Lead: PBOT; Support: Venue operator).

PARKING

Driving to events and parking is currently estimated to be the preferred means of travel for attendees (i.e., mode shares of 50% for private vehicles). No off-street parking is proposed or required for the proposed venue, although a parking study was completed to better understand the availability and occupancy of the existing nearby on-street and off-street public parking. Parking surveys were conducted between 6:00 p.m. and 11:00 p.m. on a weekday (Thursday, July 27, 2023) and a weekend (Saturday, August 5, 2023) within a 0.25 mile or about a 10-minute walk of the proposed venue, which is generally considered a comfortable walking distance. This roughly includes the blocks bounded by the Willamette River to the west, SE Morrison Street to the north, SE Grand Avenue to the east and SE Clay Street to the south. On-street parking in the surveyed area is either permit parking (i.e., Zone G or Zone N permit) or available via a 2-hour time limit for non-permit holders and enforced from 8 a.m. to 6 p.m. on weekdays only. About 1,318 parking spots were identified within the surveyed area, including 1,084 on-street parking stalls and 234 parking spots in public off-street lots. A maximum estimated parking occupancy for the entire surveyed area of 32 percent was observed during the weekday and 17 percent was observed during the weekend, both occurring in the 5:00 p.m. and 7:00 p.m. survey period. More details on the parking survey can be found in the Transportation Impact Study for the Portland Central Eastside Venue.

In addition to the survey parking spots summarized above, approximately 5,000 additional on-street stalls within the Central Eastside Industrial District[6] and more than 1,500 additional spots in parking garages across the Hawthorne Bridge in Downtown Portland are within about a 0.50 mile walk from the proposed venue.

The parking occupancy was evaluated with the proposed venue in place during both a sold-out evening concert (i.e., 45 events per year with 3,500 attendees and 350 employees) and a weekday special event (i.e., 18 events per year with 500 attendees and 50 employees). The results are based on the parking surveys which identified parking availability of 1,318 total spaces and estimated parking occupancy rates within 0.25 miles of the proposed venue.

A sold-out concert is estimated to generate demand for 915 parking spaces during both a weekday and weekend event, with attendee and employee arrivals occurring between 6:00 p.m. and 9:00 p.m.[7] and most assumed to use parking locations within 0.25 miles of the proposed venue (i.e.,

[6] 2019 Central Eastside Industrial District Parking Assessment and Permit Analysis Summary, Rick Williams Consulting, June 5, 2019.

[7] Attendee arrivals are estimated at 35 percent between 6-7 p.m., 55 percent between 7-8 p.m. and 10 percent between 8-9 p.m., while 340 staff arrive by 6 p.m. and 10 staff arrive at 10 a.m.

763 of the 915 parking spaces)[8]. The total occupied parking spaces with the proposed venue is estimated to be highest between 8:00 p.m. and 9:00 p.m. during both a weekday and weekend event when the attendee and employee parking demand is at its highest (i.e., demand for 763 spaces within 0.25 miles of the proposed venue). The parking occupancy rate during this period is estimated to reach 82 percent during a weekday event (i.e., 1,074 parking spaces) and 71 percent during a weekend event (i.e., 930 parking spaces) for the 1,318 parking spaces within 0.25 miles of the proposed venue. The estimated parking occupancy rates between 6:00 and 8:00 p.m. are under 80 percent for a weekday event and under 70 percent for a weekend event. More details on the parking demand and occupancy for a sold-out evening concert can be found in the Transportation Impact Study for the Portland Central Eastside Venue.

A weekday special event is estimated to generate demand for 131 parking spaces, with attendee and employee arrivals occurring between 12:00 p.m. and 3:00 p.m.[9] and all are assumed to use parking locations within 0.25 miles of the proposed venue. The total occupied parking spaces with the proposed venue is estimated to be highest between 1:00 p.m. and 2:00 p.m., when 1,135 parking spaces are utilized. This represents an 86 percent occupancy rate for the 1,318 parking spaces within 0.25 miles of the proposed venue. The estimated parking occupancy rates between 12:00 and 1:00 p.m. and are 2:00 and 3:00 p.m. are at or below 84 percent. More details on the parking demand and occupancy for a weekday special event can be found in the Transportation Impact Study for the Portland Central Eastside Venue.

PARKING TDM STRATEGIES

The strategies summarized below are recommended to manage driving and parking as the means of travel for events.

D.1: Promote the use of underutilized parking facilities to incentivize off-street parking.

Driving to events and parking is currently estimated to be the preferred means of travel for attendees (i.e., mode shares of 50% for private vehicles). Promoting use of nearby underutilized off-street parking will help reduce local congestion and on-street parking impacts.

Key Actions

- Promote use of SmartPark and other garages in Downtown Portland (Lead: Venue operator; Support: PBOT).

[8] All employees and 80 percent of attendees are assumed to park within 0.25 miles of the proposed venue, with the remaining 20 percent of attendees parking more than 0.25 miles from the proposed venue elsewhere in the Central Eastside (10 percent) or on the west side of the Willamette River in Downtown Portland (10 percent).

[9] Attendee arrivals are estimated at 35 percent between 12-1 p.m., 55 percent between 1-2 p.m. and 10 percent between 2-3 p.m.; all 50 staff are assumed to arrive by 12 p.m.

- Further evaluate a partnership with OMSI or PCC to utilize their existing off-street parking facilities during evening events when those facilities are not being utilized. (Lead: Venue operator).

D.2: Provide enhanced parking information.

Attendees unaware of nearby parking options may randomly search for on and/or off-street parking, causing more local delay and congestion. Providing enhanced information about nearby parking to attendees, including parking availability, will help reduce this.

Key Actions

- Update website and communications to include more detailed information on parking options near the venue. (Lead: Venue operator).

RIDE HAILING

The use of ride hailing services (e.g., Uber and Lyft) to and from events is currently estimated to be the preferred means of travel for 30% of attendees. This translates to an estimated 552 ride-hailing vehicles dropping off passengers at the venue during the pre-event period and picking them up during the post-event period, or 254 during the pre-event peak hour and 398 during the post-event peak hour. These trips would each be inbound and outbound, which would include vehicles pulling to and from the curb.

However, given that attendees may occasionally stop for a meal or drink before or after an event, it is likely that some ride hail loading is happening in Downtown Portland and at businesses in the Central Eastside, and not solely right by the venue. Assuming 80% of these ride hailing trips occur near the venue during the post-event peak hour (which represents the busier of the two event peak hours with respect to ride hailing activity), this equates to about 5.3 pick-ups per minute during the one-hour period. Assuming an average curb dwell and loading time of 81 seconds for passenger pick-ups, an estimated 7 spaces or about 175 feet of total curb space would be needed to accommodate this unregulated peak pick-up activity for a sold-out event.

RIDE HAILING TDM STRATEGIES

The strategies summarized below are recommended to manage ride hailing for events.

E.1: Designate ride-hailing zones and driver staging areas.

The use of ride hailing services (e.g., Uber and Lyft) to and from events is currently estimated to be the preferred means of travel for 30% of attendees. This translates to an estimated 552 ride-hailing vehicles. Given that attendees may occasionally stop for a meal or drink before or after an event, it is likely that ride hail loading is happening in Downtown Portland and at businesses in the Central Eastside, and not solely right by the venue.

While ride-hailing lowers the demand for parking near the venue, it can exacerbate traffic congestion, pedestrian safety issues, and local impacts as drivers and passengers seek locations to load. Designated locations for pick-ups and drop-offs that are clearly advertised, combined with driver staging areas, can help mitigate impacts, improve safety, and enhance the ride hailing experience for drivers and passengers.

It is recommended that at least two special event loading zones be implemented to allow for pre-event drop-off and post-event pick-up activity at a variety of locations within 0.25 miles of the venue, with some potential locations provided below, although the final locations are to be determined through coordination with the City. Event loading zones should not be located along high traffic roadways or those with Major City Bikeway designations (i.e., SE Water Avenue, SE Salmon Street, SE Grand Avenue and SE Martin Luther King Jr Boulevard).

- North and south side of SE Main Street between SE Water Avenue and SE 2nd Avenue.
- South side of SE Taylor Street between SE Water Avenue and the railroad crossing.
- East and west side of SE 3rd Avenue between SE Salmon Street and SE Main Street.

These street segments can serve as "flex zones" that can also be used for on-street parking at times when large events at the proposed venue are not occurring.

Key Actions

- Designate at least two ride hailing zones within 0.25 mile of the venue (Lead: PBOT; Support: Venue operator, ride hailing companies).
- Designate at last one driver staging areas within a reasonable distance of the venue on days when large events are occurring (Lead: Ride hailing companies; Support: PBOT).

E.2: Provide information on ride-hailing zones.

The pick-up and drop-off locations are only viable if drivers and passengers know about them and are encouraged to use them. Clear guidelines for ride-hailing operators and users and use of ride-hail technology can promote more efficient operations and reduce neighborhood impacts.

Key Actions

- Use geo-fencing technology to direct drivers and passengers to designated ride-hail zones (Lead: Ride-hailing companies; Support: PBOT).
- Update website and communications to direct attendees to pick-up/drop-off zones (Lead: Venue operator).

TDM PLAN MONITORING AND REPORTING

The TDM plan is a "living" document, with the following section providing a summary of how each of the measures in Table 4 will be monitored and evaluated consistent with the requirements of Portland City Code 17.107.020 (G). These measures will need to be evaluated and the results reported to the Portland Bureau of Transportation a minimum of every 2 years after initial approval of the TDM Plan per Portland City Code 17.107.045.

TABLE 4: MONITORING POTENTIAL TDM STRATEGIES

#	STRATEGY	RESPONSIBLE PARTY		MONITORING	DATA SOURCE
		LEAD	SUPPORT		
TRANSIT					
A.1	Promote use of park-and-ride facilities	Venue operator	TriMet	• Percent of attendees who take transit. • Ons/offs at key stops on event days. • Occupancy of park-and-ride facilities on event days within a 30-minute one seat ride from the venue.	• Venue operator Travel surveys • TriMet Travel Data
A.2	Encourage transit ridership with marketing	Venue operator			
PEDESTRIAN					
B.1	Temporarily close SE Salmon Street west of SE Water Avenue during events. Further study feasibility of a permanent closure.	PBOT; Venue operator		• Percent of attendees who walk	• Venue operator Travel surveys
B.2	Temporarily close SE Main Street west of SE Water Avenue during events.	PBOT; Venue operator			
B.3	Review street lighting in areas surrounding the venue. Install additional pedestrian-scaled lighting to ensure nighttime visibility and safety.	PBOT			
B.4	Support and implement planned improvements near the venue.	PBOT; ODOT	Venue operator		
BICYCLE					
C.1	Provide temporary and monitored bike parking near the venue on SE Salmon Street west of SE Water Avenue.	Venue operator		• Percent of attendees who bike or use scooters.	• Venue operator Travel surveys

#	STRATEGY	RESPONSIBLE PARTY		MONITORING	DATA SOURCE
		LEAD	SUPPORT		
C.2	Provide permanent bike parking near the venue.	Venue operator; BIKETOWN	PBOT	• Number of parked bicycles and e-scooters. • Number of permanent bike racks installed.	• BIKETOWN usage data • E-scooter companies usage data
C.3	Designate e-scooter parking areas.	PBOT; E-scooter companies	Venue operator		
C.4	Support and implement planned improvements near the venue.	PBOT	Venue operator		
PARKING					
D.1	Promote the use of underutilized parking facilities to incentivize off-street parking.	Venue operator	PBOT	• Percent of attendees who drive and park. • Parking occupancy on events days.	• Venue operator Travel surveys • Parking occupancy data
D.2	Provide enhanced parking information.	Venue operator			
RIDE HAILING					
E.1	Designate ride-hailing zones and driver staging areas.	PBOT; Ride hailing companies	Venue operator	• Percent of attendees who use ride hailing. • Pick-ups and drop-offs in ride hailing zones.	• Venue operator Travel surveys • Ride hailing companies
E.2	Provide information on ride-hailing zones.	Ride hailing companies; Venue operator	PBOT		

SECTION 2: COLLISION DATA AND ANALYSIS

000 Crash Id	015 Street Name	016 Intersecting Street Name	028 Crash Type	029 Collision Type	031 Weather Conditions	032 Road Surface Conditions	033 Lighting Conditions	034 Traffic Control	036 Crash Cause 1	114 Road Departure Flag	117 Severity	118 Intersection Flag	126 Bike / Ped Related	Week of 001 CRASH Date	002 Year	008 Jurisdiction	119 State Highway Flag	013 Lat	014 Long	024 Isect Rel Flg	025 Drvwy Rel Flg	039 Alcohol Involved Flag	040 Drug Involved Flag
1756325	SE MAIN ST	SE WATER AVE	S-1STOP	REAR	CLR	DRY	DAY	STOP SIGN	INATTENT	No	PDO	Yes	Neither	19-Mar-17	2017	Portland SE	No	45.51368	-122.666	FALSE	FALSE	FALSE	FALSE
1802333	SE MAIN ST	SE WATER AVE	ANGL-OTH	ANGL	CLR	DRY	DAY	STOP SIGN	NO-YIELD	No	Possible Injury (C)	Yes	Neither	28-Oct-18	2018	Portland SE	No	45.51368	-122.666	FALSE	FALSE	FALSE	FALSE
1734419	SE SALMON ST	SE WATER AVE	ANGL-OTH	TURN	CLR	DRY	DAY	STOP SIGN	NO-YIELD	No	Possible Injury (C)	Yes	Neither	30-Apr-17	2017	Portland SE	No	45.51439	-122.666	FALSE	FALSE	FALSE	FALSE
1701168	SE SALMON ST	SE WATER AVE	S-1STOP	REAR	CLR	DRY	DAY	STOP SIGN	F AVOID	No	PDO	Yes	Neither	3-Apr-16	2016	Portland SE	No	45.51439	-122.666	FALSE	FALSE	FALSE	FALSE
1659567	SE SALMON ST	SE WATER AVE	ANGL-OTH	ANGL	CLR	DRY	DAY	STOP SIGN	NO-YIELD	No	Possible Injury (C)	Yes	Neither	14-Feb-16	2016	Portland SE	No	45.51439	-122.666	FALSE	FALSE	FALSE	FALSE
1727588	SE SALMON ST	SE WATER AVE	ANGL-OTH	ANGL	RAIN	WET	DAY	STOP SIGN	NO-YIELD	No	Possible Injury (C)	Yes	Neither	5-Feb-17	2017	Portland SE	No	45.51439	-122.666	FALSE	FALSE	FALSE	FALSE
1743486	SE SALMON ST	SE WATER AVE	BIKE	ANGL	CLR	DRY	DAY	STOP SIGN	PAS-STOP	No	Minor Injury (B)	Yes	Bicycle	6-Aug-17	2017	Portland SE	No	45.51439	-122.666	FALSE	FALSE	FALSE	FALSE
1902816	SE SALMON ST	SE WATER AVE	PRKD MV	BACK	CLR	DRY	DAY	UNKNOWN	OTHR-IMP	Yes	PDO	No	Neither	24-May-20	2020	Portland SE	No	45.5144	-122.666	FALSE	FALSE	FALSE	FALSE
1853325	SE HAW/BRG WATER RAMP	SE WATER AVE	PED	PED	RAIN	WET	DLIT	STOP SIGN	NO-YIELD	No	Minor Injury (B)	Yes	Pedestrian	13-Oct-19	2019	Portland SE	No	45.51229	-122.666	FALSE	FALSE	FALSE	FALSE
1793611	SE HAW/BRG WATER RAMP	SE WATER AVE	BIKE	TURN	CLR	DRY	DAY	UNKNOWN	NO-YIELD	No	Minor Injury (B)	Yes	Bicycle	28-Oct-18	2018	Portland SE	No	45.51229	-122.666	FALSE	FALSE	FALSE	FALSE
1678368	SE WATER AVE	HAWTHORNE BRIDGE	S-1STOP	REAR	CLR	DRY	DAY	UNKNOWN	F AVOID	No	Possible Injury (C)	Yes	Neither	11-Sep-16	2016	Portland Bridges	No	45.51229	-122.666	FALSE	FALSE	FALSE	FALSE
1674254	SE HAW/BRG WATER RAMP	SE WATER AVE	O-1 L-TURN	TURN	CLR	DRY	DAY	UNKNOWN	OTHR-IMP	No	Possible Injury (C)	Yes	Neither	31-Jul-16	2016	Portland SE	No	45.51229	-122.666	FALSE	FALSE	FALSE	FALSE
1752455	SE HAW/BRG WATER RAMP	SE WATER AVE	S-STRGHT	REAR	RAIN	WET	DUSK	NONE	F AVOID	No	PDO	No	Neither	5-Feb-17	2017	Portland SE	No	45.51239	-122.667	FALSE	FALSE	FALSE	FALSE
1761389	SE HAWTHORNE BLVD	SE WATER AVE	O-1 L-TURN	TURN	CLR	DRY	DAY	UNKNOWN	NO-YIELD	No	PDO	Yes	Neither	2-Jul-17	2017	Portland SE	No	45.51229	-122.666	FALSE	FALSE	FALSE	FALSE
1811242	SE HAWTHORNE BLVD	SE WATER AVE	ANGL-OTH	TURN	CLR	DRY	DAY	UNKNOWN	NO-YIELD	No	PDO	Yes	Neither	15-Jul-18	2018	Portland SE	No	45.51229	-122.666	FALSE	TRUE	FALSE	FALSE
1871270	SE HAWTHORNE BLVD	SE WATER AVE	ANGL-OTH	TURN	CLR	WET	DAY	ONE-WAY	WRNG WAY	No	PDO	Yes	Neither	15-Sep-19	2019	Portland SE	No	45.51229	-122.666	FALSE	FALSE	FALSE	FALSE
1783006	WATER AVE	NB EXTO WATER AVE C6	OVERTURN	NCOL	CLD	DRY	DAY	TRF SIGNAL	TOO-FAST	No	Possible Injury (C)	Yes	Neither	25-Mar-18	2018	Portland SE	Yes	45.51582	-122.666	FALSE	FALSE	FALSE	FALSE
1821552	SE WATER AVE	SE YAMHILL ST	ANGL-OTH	ANGL	CLR	DRY	DAY	STOP SIGN	NO-YIELD	No	PDO	Yes	Neither	23-Sep-18	2018	Portland SE	No	45.51582	-122.666	FALSE	FALSE	FALSE	FALSE
1668238	SE WATER AVE	SE YAMHILL ST	ANGL-OTH	ANGL	CLR	DRY	DAY	STOP SIGN	PAS-STOP	No	Minor Injury (B)	Yes	Neither	1-May-16	2016	Portland SE	No	45.51582	-122.666	FALSE	FALSE	FALSE	FALSE
1681102	WATER AVE	NB EXTO WATER AVE C6	ANGL-OTH	ANGL	CLR	DRY	DAY	STOP SIGN	PAS-STOP	No	Possible Injury (C)	Yes	Neither	30-Oct-16	2016	Portland SE	Yes	45.51582	-122.666	FALSE	FALSE	FALSE	FALSE
1697147	WATER AVE	NB EXTO WATER AVE C6	S-1STOP	REAR	CLR	DRY	DAY	STOP SIGN	F AVOID	No	PDO	Yes	Neither	26-Jun-16	2016	Portland SE	Yes	45.51582	-122.666	FALSE	FALSE	FALSE	FALSE
1821709	SE WATER AVE	SE YAMHILL ST	S-OTHER	REAR	CLR	DRY	DAY	STOP SIGN	F AVOID	No	PDO	Yes	Neither	16-Sep-18	2018	Portland SE	No	45.51582	-122.666	FALSE	FALSE	FALSE	FALSE
1757939	SE WATER AVE	SE YAMHILL ST	S-STRGHT	SS-O	CLR	DRY	DLIT	STOP SIGN	IMP LN C	No	PDO	Yes	Neither	12-Mar-17	2017	Portland SE	No	45.51582	-122.666	FALSE	FALSE	FALSE	FALSE
1781518	WATER AVE	NB EXTO WATER AVE C6	S-1STOP	REAR	CLR	DRY	DAY	STOP SIGN	F AVOID	No	Possible Injury (C)	Yes	Neither	1-Apr-18	2018	Portland SE	Yes	45.51582	-122.666	FALSE	FALSE	FALSE	FALSE
1899213	WATER AVE	NB EXTO WATER AVE C6	S-STRGHT	SS-O	CLR	DRY	DAY	STOP SIGN	IMP LN C	No	PDO	Yes	Neither	26-Jan-20	2020	Portland SE	Yes	45.51582	-122.666	FALSE	FALSE	FALSE	FALSE
1825333	WATER AVE	NB EXTO WATER AVE C6	ANGL-OTH	BACK	CLR	DRY	DAY	UNKNOWN	NO-YIELD	No	PDO	No	Neither	5-Aug-18	2018	Portland SE	No	45.51556	-122.666	FALSE	FALSE	FALSE	FALSE
1883249	SE YAMHILL ST	SE WATER AVE	S-1STOP	REAR	CLR	DRY	DAY	UNKNOWN	F AVOID	No	Possible Injury (C)	No	Neither	10-May-20	2020	Portland SE	No	45.51582	-122.665	FALSE	FALSE	FALSE	FALSE
1818194	WATER AVE RAMP	WATER AVE	PED	PED	CLR	DRY	DAY	WARNING	NO-YIELD	No	Possible Injury (C)	Yes	Pedestrian	29-Jul-18	2018	Portland SE	No	45.5162	-122.666	FALSE	FALSE	FALSE	FALSE
1899421	SE STARK ST	SE MLK/UNION	O-1 L-TURN	TURN	CLR	DRY	DAY	TRF SIGNAL	NO-YIELD	No	PDO	Yes	Neither	14-Jun-20	2020	Portland SE	No	45.51937	-122.662	FALSE	FALSE	FALSE	FALSE
1805896	SE STARK ST	SE MLK/UNION	S-STRGHT	SS-O	RAIN	WET	DAY	ONE-WAY	IMP LN C	No	PDO	Yes	Neither	1-Apr-18	2018	Portland SE	No	45.51937	-122.662	FALSE	FALSE	FALSE	FALSE
1730781	SE STARK ST	SE MLK/UNION	ANGL-OTH	ANGL	CLD	DRY	DAY	TRF SIGNAL	DIS SIG	No	Possible Injury (C)	Yes	Neither	19-Mar-17	2017	Portland SE	No	45.51937	-122.662	FALSE	FALSE	FALSE	FALSE
1762240	SE STARK ST	SE MLK/UNION	S-1STOP	REAR	CLR	DRY	DAY	TRF SIGNAL	VIEW OBS	No	PDO	Yes	Neither	21-May-17	2017	Portland SE	No	45.51937	-122.662	FALSE	FALSE	FALSE	FALSE
1762782	SE STARK ST	SE MLK/UNION	S-1TURN	TURN	CLR	DRY	DAY	TRF SIGNAL	IMP-TURN	No	PDO	Yes	Neither	30-Jul-17	2017	Portland SE	No	45.51937	-122.662	FALSE	FALSE	FALSE	FALSE
1696337	SE STARK ST	SE MLK/UNION	S-1TURN	TURN	CLR	DRY	DAY	TRF SIGNAL	IMP-TURN	No	PDO	Yes	Neither	26-Jun-16	2016	Portland SE	No	45.51937	-122.662	FALSE	TRUE	FALSE	FALSE
1704083	SE MLK/UNION	SE STARK ST	S-STRGHT	SS-O	CLR	DRY	DAY	ONE-WAY	IMP LN C	No	PDO	No	Neither	8-May-16	2016	Portland SE	No	45.51954	-122.662	FALSE	FALSE	FALSE	FALSE
1709165	SE STARK ST	SE MLK/UNION	S-1STOP	REAR	RAIN	WET	DAY	TRF SIGNAL	F AVOID	No	PDO	Yes	Neither	9-Oct-16	2016	Portland SE	No	45.51937	-122.662	FALSE	FALSE	FALSE	FALSE
1694341	SE STARK ST	SE MLK/UNION	S-1STOP	REAR	RAIN	WET	DLIT	TRF SIGNAL	F AVOID	No	PDO	Yes	Neither	6-Mar-16	2016	Portland SE	No	45.51937	-122.662	FALSE	FALSE	FALSE	FALSE
1679784	SE STARK ST	SE MLK/UNION	S-1STOP	REAR	RAIN	WET	DAY	TRF SIGNAL	FATIGUE	No	Possible Injury (C)	Yes	Neither	16-Oct-16	2016	Portland SE	No	45.51937	-122.662	FALSE	FALSE	FALSE	FALSE
1765888	SE STARK ST	SE MLK/UNION	O-1 L-TURN	TURN	CLR	DRY	DAY	TRF SIGNAL	NO-YIELD	No	PDO	Yes	Neither	20-Aug-17	2017	Portland SE	No	45.51937	-122.662	FALSE	FALSE	FALSE	FALSE
1749828	SE STARK ST	SE MLK/UNION	S-1TURN	TURN	UNK	UNK	DAY	TRF SIGNAL	IMP-TURN	No	PDO	Yes	Neither	22-Jan-17	2017	Portland SE	No	45.51937	-122.662	FALSE	FALSE	FALSE	FALSE
1779714	SE STARK ST	SE MLK/UNION	S-1STOP	REAR	CLR	DRY	DAY	TRF SIGNAL	F AVOID	No	Possible Injury (C)	Yes	Neither	25-Feb-18	2018	Portland SE	No	45.51937	-122.662	FALSE	FALSE	FALSE	FALSE
1904681	SE MLK/UNION	SE STARK ST	S-STRGHT	SS-O	CLR	DRY	DAY	ONE-WAY	IMP LN C	No	PDO	No	Neither	19-Jul-20	2020	Portland SE	No	45.5197	-122.662	FALSE	FALSE	FALSE	FALSE

1743044	SE STARK ST	SE MLK/UNION	S-STRGHT	SS-O	CLR	DRY	DLIT	TRF SIGNAL	IMP LN C	No	Minor Injury (B)	Yes	Neither	24-Sep-17	2017	Portland SE	No	45.51937	-122.662	FALSE	FALSE	FALSE	FALSE
1784955	SE STARK ST	SE MLK/UNION	S-1STOP	REAR	CLR	DRY	DAY	TRF SIGNAL	F AVOID	No	Possible Injury (C)	Yes	Neither	6-May-18	2018	Portland SE	No	45.51937	-122.662	FALSE	FALSE	FALSE	FALSE
1846873	SE GRAND AVE	SE STARK ST	PED	PED	RAIN	WET	DLIT	TRF SIGNAL	NT VISBL	No	Possible Injury (C)	Yes	Pedestrian	24-Mar-19	2019	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1863270	SE GRAND AVE	SE STARK ST	FIX OBJ	FIX	CLR	DRY	DAY	TRF SIGNAL	IMP-TURN	No	PDO	Yes	Neither	9-Jun-19	2019	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1788342	SE GRAND AVE	SE STARK ST	ANGL-OTH	ANGL	CLR	DRY	DAY	TRF SIGNAL	DIS SIG	No	Possible Injury (C)	Yes	Neither	8-Jul-18	2018	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1796332	SE GRAND AVE	SE STARK ST	BIKE	TURN	CLR	DRY	DUSK	TRF SIGNAL	NO-YIELD	No	Possible Injury (C)	Yes	Bicycle	11-Nov-18	2018	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1663316	SE GRAND AVE	SE STARK ST	BIKE	TURN	CLR	DRY	DLIT	TRF SIGNAL	IMP-OVER	No	Minor Injury (B)	Yes	Bicycle	3-Apr-16	2016	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1682004	SE GRAND AVE	SE STARK ST	ANGL-OTH	ANGL	RAIN	WET	DAY	TRF SIGNAL	DIS SIG	No	Minor Injury (B)	Yes	Neither	30-Oct-16	2016	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1678691	SE GRAND AVE	SE STARK ST	O-1 L-TURN	TURN	CLR	DRY	DAY	TRF SIGNAL	NO-YIELD	No	Minor Injury (B)	Yes	Neither	9-Oct-16	2016	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1699286	SE GRAND AVE	SE STARK ST	S-STRGHT	SS-O	RAIN	WET	DAY	UNKNOWN	IMP LN C	No	PDO	No	Neither	20-Mar-16	2016	Portland SE	No	45.51919	-122.661	FALSE	FALSE	FALSE	FALSE
1694493	SE GRAND AVE	SE STARK ST	S-STRGHT	SS-O	CLR	DRY	DAWN	TRF SIGNAL	IMP LN C	No	PDO	Yes	Neither	15-May-16	2016	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1745163	SE GRAND AVE	SE STARK ST	ANGL-OTH	ANGL	CLR	DRY	DLIT	TRF SIGNAL	DIS SIG	No	Possible Injury (C)	Yes	Neither	15-Oct-17	2017	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1765280	SE GRAND AVE	SE STARK ST	S-STRGHT	SS-O	CLR	DRY	DAWN	TRF SIGNAL	IMP LN C	No	PDO	Yes	Neither	13-Aug-17	2017	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1807076	SE GRAND AVE	SE WASHINGTON ST	S-1STOP	REAR	CLR	DRY	DAY	ONE-WAY	F AVOID	No	PDO	No	Neither	18-Mar-18	2018	Portland SE	No	45.51891	-122.661	FALSE	FALSE	FALSE	FALSE
1895880	SE GRAND AVE	SE WASHINGTON ST	S-STRGHT	SS-O	RAIN	WET	DAY	ONE-WAY	IMP LN C	No	PDO	No	Neither	5-Jan-20	2020	Portland SE	No	45.51896	-122.661	FALSE	FALSE	FALSE	FALSE
1747661	SE GRAND AVE	SE STARK ST	S-1STOP	REAR	CLR	DRY	DAY	ONE-WAY	F AVOID	No	Possible Injury (C)	Yes	Neither	3-Dec-17	2017	Portland SE	No	45.51917	-122.661	TRUE	FALSE	FALSE	FALSE
1825558	SE STARK ST	SE GRAND AVE	S-OTHER	PARK	RAIN	WET	DLIT	UNKNOWN	OTHER	No	PDO	No	Neither	16-Dec-18	2018	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1796925	SE GRAND AVE	SE STARK ST	O-1 L-TURN	TURN	CLR	DRY	DLIT	TRF SIGNAL	NO-YIELD	No	Possible Injury (C)	Yes	Neither	21-Oct-18	2018	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1870963	SE GRAND AVE	SE STARK ST	S-STRGHT	REAR	CLR	DRY	DAY	TRF SIGNAL	F AVOID	No	PDO	Yes	Neither	28-Jul-19	2019	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1895982	SE GRAND AVE	SE STARK ST	ANGL-OTH	ANGL	CLR	DRY	DAY	TRF SIGNAL	DIS SIG	No	PDO	Yes	Neither	2-Feb-20	2020	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1805265	SE GRAND AVE	SE STARK ST	O-1 L-TURN	TURN	CLR	DRY	DAY	TRF SIGNAL	NO-YIELD	No	PDO	Yes	Neither	25-Feb-18	2018	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1852896	SE GRAND AVE	SE STARK ST	O-1 L-TURN	TURN	CLR	DRY	DLIT	TRF SIGNAL	NO-YIELD	No	Possible Injury (C)	Yes	Neither	20-Oct-19	2019	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1872990	SE CLAY ST	SE WATER AVE	FIX OBJ	FIX	RAIN	WET	DAY	TRF SIGNAL	OTHR-IMP	No	PDO	Yes	Neither	13-Oct-19	2019	Portland SE	No	45.51154	-122.666	FALSE	FALSE	FALSE	FALSE
1896256	SE CLAY ST	SE WATER AVE	S-1STOP	REAR	CLR	DRY	DLIT	TRF SIGNAL	F AVOID	No	PDO	Yes	Neither	2-Feb-20	2020	Portland SE	No	45.51154	-122.666	FALSE	FALSE	FALSE	FALSE

General & Site Information	
Analyst:	
Agency/Company:	DKS Associates
Date:	7/11/2023
Project Name:	Portland Block B Venue TIS

Intersection Crash Data

Intersection	Intersection Type	Year 2016	2017	2018	2019	2020	Total	Vol Data (6pm pk)
SE Water Avenue/SE Morrison Bridge Off Ramp	Urban 3ST			1			1	381
SE Water Avenue & I-5 Off Ramp/SE Yamhill Street	Urban 4ST	3	1	5	0	2	11	611
SE Water Avenue/SE Salmon Street	Urban 4ST	2	3			1	6	286
SE Water Avenue/SE Main Street	Urban 4ST		1	1			2	279
SE Water Avenue/SE Hawthorne Boulevard	Urban 3ST	2	2	2	2		8	370
SE Water Avenue/SE Clay Street	Urban 3SG				1	1	2	301
SE Stark Street/SE Martin Luther King Jr Boulevard	Urban 3SG	5	6	3	0	2	16	1434
SE Stark Street/SE Grand Avenue	Urban 3SG	5	3	6	4	2	20	1898
							0	
							0	
							0	
							0	
	Total	17	16	18	7	8	66	

Intersection Population Type Crash Rate

Average Crash Rate per intersection type

Intersection Pop. Type	Sum of Crashes	Sum of 5-year MEV	Avg Crash Rate for Ref Pop.	INT in Pop
Rural 3SG	0	0		
Rural 3ST	0	0		
Rural 4SG	0	0		
Rural 4ST	0	0		
Urban 3ST	9	25	0.3552	2
Urban 3SG	38	123	0.3101	3
Urban 4ST	19	40	0.4789	3
Urban 4SG	0	0		

Critical Rate Calculation

Intersection	AADT Entering Intersection	5-year MEV	Crash Total	Intersection Population Type	Intersection Crash Rate	Reference Population Crash Rate	Critical Rate	Over Critical
SE Water Avenue/SE Morrison Bridge Off Ramp	7,043	12.9	1	Urban 3ST	0.08	APM Exhibit 4-1	0.29	Under
SE Water Avenue & I-5 Off Ramp/SE Yamhill Street	11,294	20.6	11	Urban 4ST	0.53	APM Exhibit 4-1	0.41	**Over**
SE Water Avenue/SE Salmon Street	5,287	9.6	6	Urban 4ST	0.62	APM Exhibit 4-1	0.41	**Over**
SE Water Avenue/SE Main Street	5,157	9.4	2	Urban 4ST	0.21	APM Exhibit 4-1	0.41	Under
SE Water Avenue/SE Hawthorne Boulevard	6,839	12.5	8	Urban 3ST	0.64	APM Exhibit 4-1	0.29	**Over**
SE Water Avenue/SE Clay Street	5,564	10.2	2	Urban 3SG	0.20	APM Exhibit 4-1	0.51	Under
SE Stark Street/SE Martin Luther King Jr Boulevard	26,507	48.4	16	Urban 3SG	0.33	APM Exhibit 4-1	0.51	Under
SE Stark Street/SE Grand Avenue	35,084	64.0	20	Urban 3SG	0.31	APM Exhibit 4-1	0.51	Under

SECTION 3: VOLUME DATA

Type of report: Tube Count - Volume Data

LOCATION: SE Water Ave btwn SE Salmon and SE Main St **QC JOB #:** 16263761

SPECIFIC LOCATION: **DIRECTION:** NB, SB

CITY/STATE: Portland, OR **DATE:** Jul 13 2023 - Jul 13 2023

Start Time	Mon	Tue	Wed	Thu 13 Jul 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				22		22			22	
01:00 AM				16		16			16	
02:00 AM				13		13			13	
03:00 AM				21		21			21	
04:00 AM				37		37			37	
05:00 AM				62		62			62	
06:00 AM				123		123			123	
07:00 AM				222		222			222	
08:00 AM				**397**		**397**			**397**	
09:00 AM				365		365			365	
10:00 AM				283		283			283	
11:00 AM				270		270			270	
12:00 PM				279		279			279	
01:00 PM				297		297			297	
02:00 PM				313		313			313	
03:00 PM				473		473			473	
04:00 PM				433		433			433	
05:00 PM				**488**		**488**			**488**	
06:00 PM				264		264			264	
07:00 PM				165		165			165	
08:00 PM				132		132			132	
09:00 PM				126		126			126	
10:00 PM				82		82			82	
11:00 PM				35		35			35	
Day Total				4918		4918			4918	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				8:00 AM 397		8:00 AM 397			8:00 AM 397	
PM Peak Volume				5:00 PM 488		5:00 PM 488			5:00 PM 488	

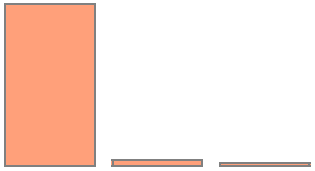
Comments:

Report generated on 7/26/2023 12:23 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Vehicle Classification Data

LOCATION: SE Water Ave btwn SE Salmon and SE Main St
QC JOB #: 16263761
SPECIFIC LOCATION:
DIRECTION: NB, SB
CITY/STATE: Portland, OR
DATE: Jul 13 2023

Start Time	FHWA Classes 1-3	FHWA Classes 4-7	FHWA Classes 8-13	Total
12:00 AM	22	0	0	22
01:00 AM	16	0	0	16
02:00 AM	13	0	0	13
03:00 AM	18	1	2	21
04:00 AM	30	4	3	37
05:00 AM	60	2	0	62
06:00 AM	116	1	6	123
07:00 AM	209	8	5	222
08:00 AM	**376**	12	**9**	**397**
09:00 AM	330	**33**	2	365
10:00 AM	264	17	2	283
11:00 AM	244	21	5	270
12:00 PM	264	11	4	279
01:00 PM	277	15	**5**	297
02:00 PM	297	13	3	313
03:00 PM	455	**17**	1	473
04:00 PM	416	14	3	433
05:00 PM	**483**	4	1	**488**
06:00 PM	260	3	1	264
07:00 PM	165	0	0	165
08:00 PM	131	1	0	132
09:00 PM	126	0	0	126
10:00 PM	82	0	0	82
11:00 PM	35	0	0	35
Day Total	4689	177	52	4918
Percent	95.3%	3.6%	1.1%	
ADT 4918				
AM Peak	8:00 AM	9:00 AM	8:00 AM	8:00 AM
Volume	376	33	9	397
PM Peak	5:00 PM	3:00 PM	1:00 PM	5:00 PM
Volume	483	17	5	488

Comments:

Report generated on 7/26/2023 12:23 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Vehicle Classification Data

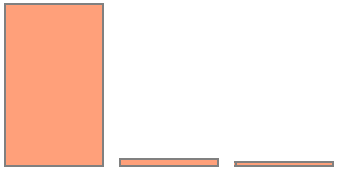
SUMMARY - Tube Count - Vehicle Classification Data

LOCATION: SE Water Ave btwn SE Salmon and SE Main St
SPECIFIC LOCATION:
CITY/STATE: Portland, OR

QC JOB #: 16263761
DIRECTION: NB, SB
DATE: Jul 13 2023

Start Time	FHWA Classes 1-3	FHWA Classes 4-7	FHWA Classes 8-13	Total
Grand Total	4689	177	52	4918
Percent	95.3%	3.6%	1.1%	

ADT 4918



Comments:

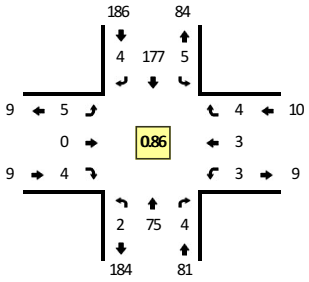
Report generated on 7/26/2023 12:23 PM

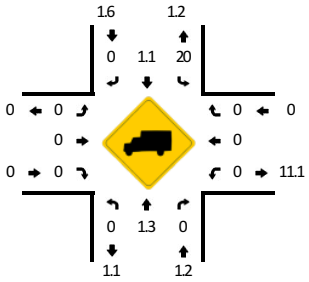
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

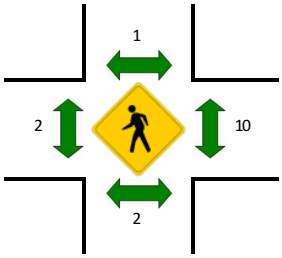
LOCATION: SE Water St -- SE Salmon St | **QC JOB #:** 16263721
CITY/STATE: Portland, OR | **DATE:** Thu, Jul 13 2023

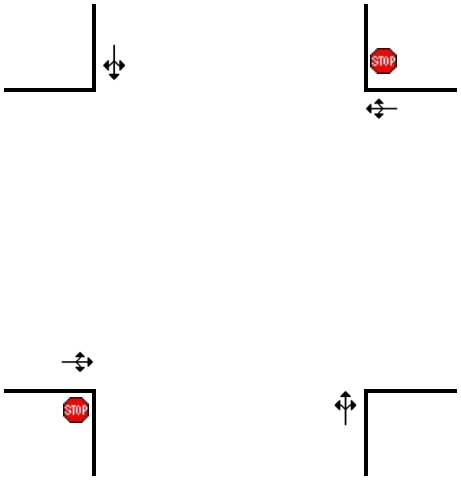
Peak-Hour: 6:00 PM -- 7:00 PM
Peak 15-Min: 6:35 PM -- 6:50 PM

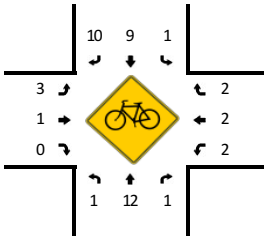


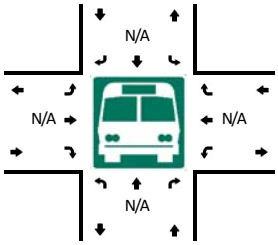


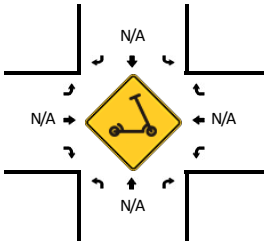
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Salmon St (Eastbound)				SE Salmon St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	9	0	0	1	15	0	0	2	0	0	0	0	0	1	0	28	
6:05 PM	0	3	1	0	0	16	2	0	0	0	1	0	1	0	0	0	24	
6:10 PM	0	8	0	0	1	19	0	0	0	0	0	0	0	0	0	0	28	
6:15 PM	1	8	0	0	0	17	0	0	0	0	0	0	1	0	0	0	27	
6:20 PM	0	5	0	0	0	10	1	0	1	0	1	0	0	0	0	0	18	
6:25 PM	0	6	0	0	0	14	0	0	0	0	0	0	0	0	0	0	20	
6:30 PM	0	4	0	0	0	14	0	0	0	0	0	0	0	2	0	0	20	
6:35 PM	0	5	0	0	0	17	1	0	1	0	2	0	1	0	0	0	27	
6:40 PM	0	12	1	0	1	16	0	0	0	0	0	0	0	0	0	0	30	
6:45 PM	0	6	1	0	0	17	0	0	0	0	0	0	0	0	2	0	26	
6:50 PM	1	2	0	0	1	11	0	0	1	0	0	0	0	0	0	0	16	
6:55 PM	0	7	1	0	1	11	0	0	0	0	0	0	0	1	1	0	22	286
7:00 PM	0	3	0	0	0	15	0	0	0	0	1	0	0	0	0	0	19	277
7:05 PM	0	6	0	0	0	14	0	0	0	0	0	0	1	1	0	0	22	275
7:10 PM	0	3	0	0	0	5	0	0	0	0	0	0	0	0	0	0	8	255
7:15 PM	0	2	0	0	0	7	0	0	1	0	0	0	0	0	0	0	10	238
7:20 PM	0	8	0	0	1	6	0	0	0	0	0	0	1	0	0	0	16	236
7:25 PM	0	1	1	0	0	13	1	0	0	0	0	0	0	0	1	0	17	233
7:30 PM	0	1	0	0	1	16	0	0	1	0	0	0	0	0	0	0	19	232
7:35 PM	0	2	1	0	0	12	0	0	0	0	0	0	0	1	0	0	16	221
7:40 PM	0	1	0	0	0	6	1	0	0	0	0	0	0	0	1	0	9	200
7:45 PM	0	6	0	0	1	10	0	0	0	0	0	0	0	0	0	0	17	191
7:50 PM	0	2	1	0	0	8	0	0	0	0	0	0	0	0	0	0	11	186
7:55 PM	0	2	0	0	2	7	0	0	0	0	1	0	0	0	1	0	13	177

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	92	8	0	4	200	4	0	4	0	8	0	4	0	8	0	332
Heavy Trucks	0	4	0		4	0	0		0	0	0		0	0	0		8
Buses																	
Pedestrians		8				0				0				12			20
Bicycles	0	8	4		0	20	8		8	4	0		0	0	4		56
Scooters																	

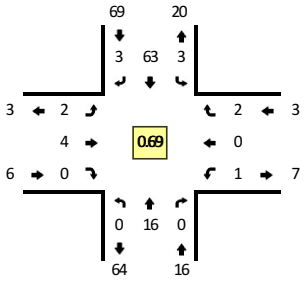
Comments:

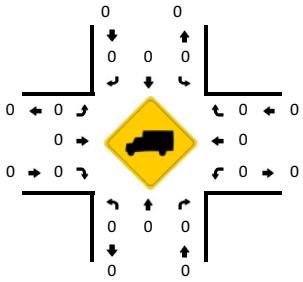
Report generated on 7/26/2023 12:40 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

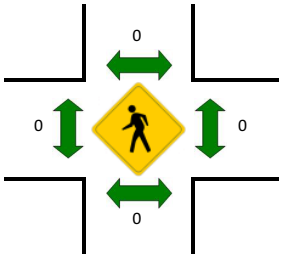
LOCATION: SE Water St -- SE Salmon St | **QC JOB #:** 16263722
CITY/STATE: Portland, OR | **DATE:** Thu, Jul 13 2023

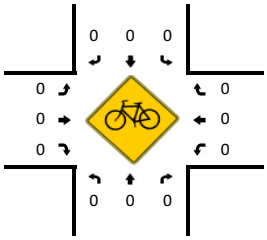
Peak-Hour: 10:00 PM -- 11:00 PM
Peak 15-Min: 10:00 PM -- 10:15 PM

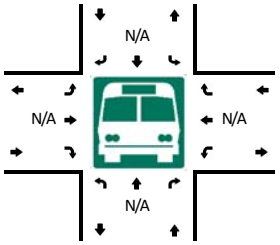


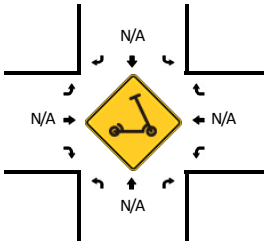


Quality Counts
DATA THAT DRIVES COMMUNITIES









5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Salmon St (Eastbound)				SE Salmon St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	3	0	0	0	11	0	0	1	0	0	0	0	0	1	0	16	
10:05 PM	0	0	0	0	0	9	0	0	0	0	0	0	1	0	0	0	10	
10:10 PM	0	1	0	0	0	5	0	0	1	1	0	0	0	0	0	0	8	
10:15 PM	0	4	0	0	0	5	1	0	0	0	0	0	0	0	0	0	10	
10:20 PM	0	3	0	0	0	5	0	0	0	0	0	0	0	0	1	0	9	
10:25 PM	0	1	0	0	0	5	0	0	0	0	0	0	0	0	0	0	6	
10:30 PM	0	2	0	0	1	3	0	0	0	1	0	0	0	0	0	0	7	
10:35 PM	0	0	0	0	1	6	0	0	0	0	0	0	0	0	0	0	7	
10:40 PM	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	4	
10:45 PM	0	2	0	0	0	6	0	0	0	2	0	0	0	0	0	0	10	
10:50 PM	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	3	
10:55 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4	94
11:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	80
11:05 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	71
11:10 PM	0	0	0	0	0	6	0	0	1	0	0	0	0	0	0	0	7	70
11:15 PM	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	4	64
11:20 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3	58
11:25 PM	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	5	57
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
11:35 PM	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	3	46
11:40 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3	45
11:45 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3	38
11:50 PM	0	1	0	0	2	2	0	0	0	0	0	0	0	0	0	0	5	40
11:55 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3	39

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	16	0	0	0	100	0	0	8	4	0	0	4	0	4	0	136
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 7/26/2023 12:40 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

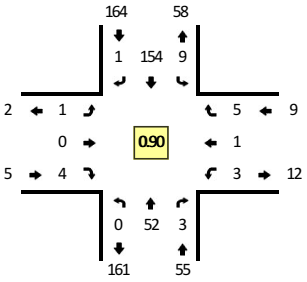
Type of peak hour being reported: Intersection Peak

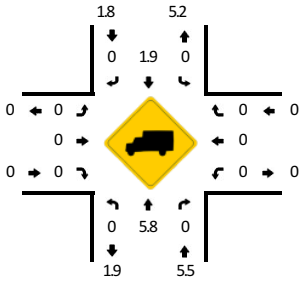
Method for determining peak hour: Total Entering Volume

LOCATION: SE Water St -- SE Salmon St
CITY/STATE: Portland, OR

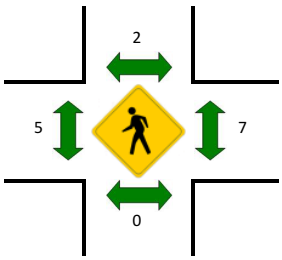
QC JOB #: 16263723
DATE: Sat, Jul 15 2023

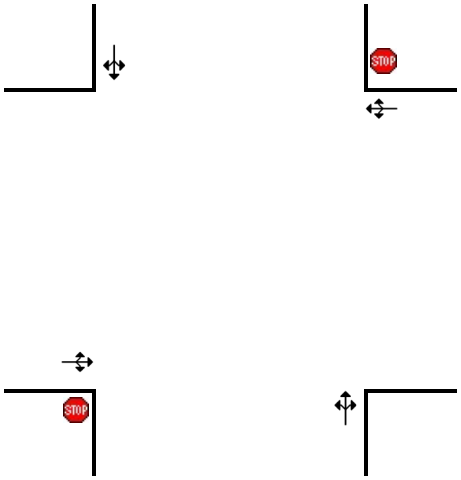
Peak-Hour: 6:05 PM -- 7:05 PM
Peak 15-Min: 6:05 PM -- 6:20 PM

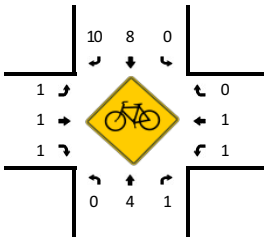


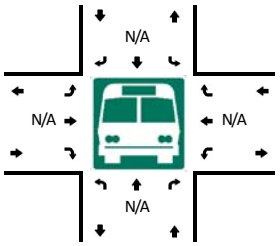


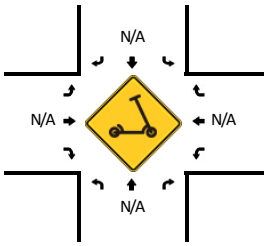
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Salmon St (Eastbound)				SE Salmon St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	8	
6:05 PM	0	4	1	0	2	22	0	0	0	0	2	0	0	1	0	0	32	
6:10 PM	0	2	0	0	1	9	0	0	0	0	0	0	0	0	2	0	14	
6:15 PM	0	3	0	0	0	15	1	0	0	0	0	0	0	0	0	0	19	
6:20 PM	0	5	0	0	1	10	0	0	1	0	1	0	1	0	0	0	19	
6:25 PM	0	8	0	0	1	9	0	0	0	0	0	0	0	0	0	0	18	
6:30 PM	0	3	0	0	0	12	0	0	0	0	0	0	1	0	0	0	16	
6:35 PM	0	6	0	0	0	11	0	0	0	0	0	0	0	0	0	0	17	
6:40 PM	0	6	0	0	0	14	0	0	0	0	0	0	0	0	0	0	20	
6:45 PM	0	3	0	0	2	15	0	0	0	0	0	0	0	0	0	0	20	
6:50 PM	0	3	1	0	0	15	0	0	0	0	1	0	1	0	1	0	22	
6:55 PM	0	8	0	0	0	10	0	0	0	0	0	0	0	0	1	0	19	224
7:00 PM	0	1	1	0	2	12	0	0	0	0	0	0	0	0	1	0	17	233
7:05 PM	0	4	0	0	0	8	2	0	0	1	0	0	0	0	0	0	15	216
7:10 PM	0	5	0	0	0	10	0	0	0	1	1	0	0	0	0	0	17	219
7:15 PM	0	1	0	0	0	20	0	0	0	0	0	0	1	0	0	0	22	222
7:20 PM	0	1	0	0	1	14	0	0	0	0	0	0	0	1	1	0	18	221
7:25 PM	0	0	0	0	1	22	0	0	0	0	0	0	0	0	0	0	23	226
7:30 PM	0	8	0	0	1	8	1	0	0	0	0	0	1	0	0	0	19	229
7:35 PM	0	2	0	0	1	12	0	0	0	0	1	0	0	0	0	0	16	228
7:40 PM	0	0	0	0	0	8	2	0	0	0	0	0	0	1	0	0	11	219
7:45 PM	0	3	0	0	0	11	2	0	0	0	0	0	0	0	0	0	16	215
7:50 PM	0	1	0	0	0	16	0	0	0	0	0	0	0	0	0	0	17	210
7:55 PM	1	5	0	0	0	27	0	0	0	0	0	0	0	0	0	0	33	224

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	36	4	0	12	184	4	0	0	0	8	0	0	4	8	0	260
Heavy Trucks	0	4	0		0	0	0		0	0	0		0	0	0		4
Buses																	
Pedestrians		0				0				4				4			8
Bicycles	0	4	0		0	0	12		4	0	0		0	0	0		20
Scooters																	

Comments:

Report generated on 7/26/2023 12:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

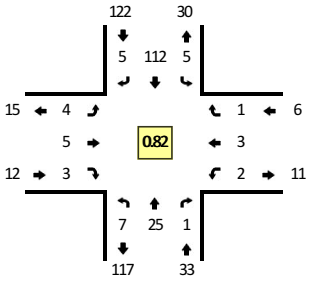
Type of peak hour being reported: Intersection Peak

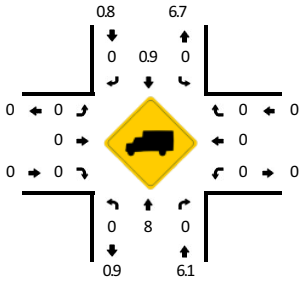
Method for determining peak hour: Total Entering Volume

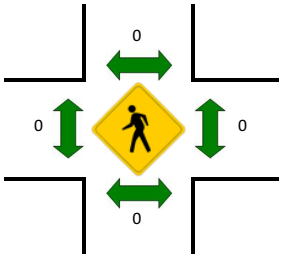
LOCATION: SE Water St -- SE Salmon St
CITY/STATE: Portland, OR

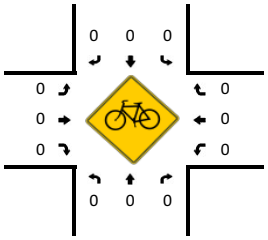
QC JOB #: 16263724
DATE: Sat, Jul 15 2023

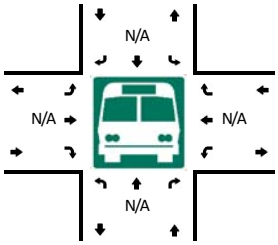
Peak-Hour: 10:15 PM -- 11:15 PM
Peak 15-Min: 10:15 PM -- 10:30 PM

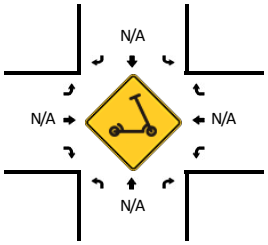












5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Salmon St (Eastbound)				SE Salmon St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	1	0	0	0	2	0	0	0	1	0	0	1	0	0	0	5	
10:05 PM	1	3	0	0	2	10	0	0	1	1	0	0	0	0	0	0	18	
10:10 PM	0	3	0	0	1	9	0	0	1	0	0	0	0	0	0	0	14	
10:15 PM	1	4	0	0	0	10	0	0	2	1	0	0	1	1	0	0	20	
10:20 PM	0	2	1	0	2	9	1	0	0	0	0	0	0	0	0	0	15	
10:25 PM	1	4	0	0	0	12	0	0	0	0	1	0	0	0	0	0	18	
10:30 PM	0	1	0	0	0	12	0	0	0	0	0	0	0	0	0	0	13	
10:35 PM	0	1	0	0	0	10	1	0	0	2	0	0	1	0	0	0	15	
10:40 PM	0	2	0	0	0	9	1	0	0	0	0	0	0	0	0	0	12	
10:45 PM	1	2	0	0	1	9	0	0	0	0	0	0	0	0	0	0	13	
10:50 PM	0	4	0	0	0	6	0	0	0	0	0	0	0	0	0	0	10	
10:55 PM	3	1	0	0	1	11	0	0	0	1	0	0	0	0	0	0	17	170
11:00 PM	0	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	4	169
11:05 PM	1	3	0	0	1	10	1	0	0	0	0	0	0	1	1	0	18	169
11:10 PM	0	0	0	0	0	13	1	0	1	1	1	0	0	1	0	0	18	173
11:15 PM	1	0	0	0	0	5	0	0	0	1	1	0	0	1	0	0	9	162
11:20 PM	0	2	0	0	1	7	2	0	0	0	0	0	0	0	0	0	12	159
11:25 PM	0	1	1	0	0	5	2	0	0	0	0	0	0	1	0	0	10	151
11:30 PM	0	2	0	0	0	8	2	0	0	0	0	0	2	0	0	0	14	152
11:35 PM	3	1	0	0	2	4	0	0	0	1	0	0	0	1	0	0	12	149
11:40 PM	0	3	0	0	0	8	1	0	0	2	1	0	1	1	0	0	17	154
11:45 PM	2	3	0	0	1	5	1	0	0	0	1	0	0	0	0	0	13	154
11:50 PM	1	1	0	0	0	5	1	0	0	0	1	0	0	0	0	0	9	153
11:55 PM	0	0	0	0	1	4	1	0	1	0	1	0	0	1	0	0	9	145

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	8	40	4	0	8	124	4	0	8	4	4	0	4	4	0	0	212
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 7/26/2023 12:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

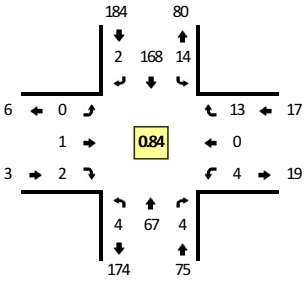
Type of peak hour being reported: Intersection Peak

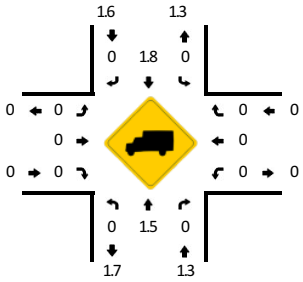
Method for determining peak hour: Total Entering Volume

LOCATION: SE Water St -- SE Main St
CITY/STATE: Portland, OR

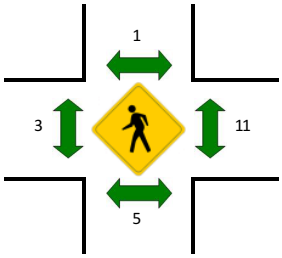
QC JOB #: 16263725
DATE: Thu, Jul 13 2023

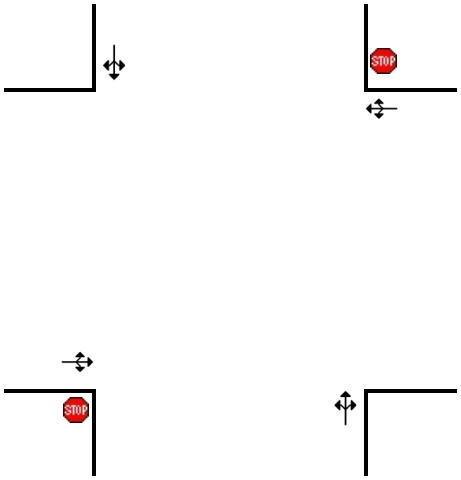
Peak-Hour: 6:00 PM -- 7:00 PM
Peak 15-Min: 6:35 PM -- 6:50 PM

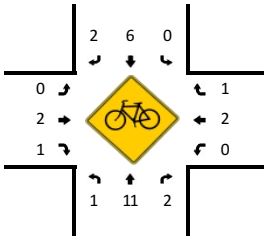


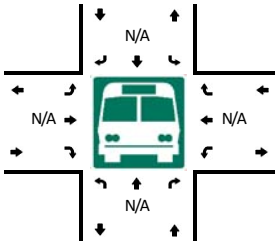


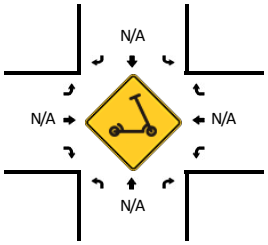
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Main St (Eastbound)				SE Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	7	0	0	2	14	0	0	0	0	0	0	0	0	2	0	25	
6:05 PM	0	4	0	0	0	19	0	0	0	0	0	0	0	0	0	0	23	
6:10 PM	0	8	0	0	0	18	0	0	0	0	0	0	2	0	0	0	28	
6:15 PM	0	7	0	0	0	18	0	0	0	0	1	0	0	0	2	0	28	
6:20 PM	3	5	0	0	2	7	1	0	0	0	0	0	0	0	0	0	18	
6:25 PM	0	4	0	0	0	14	0	0	0	0	0	0	0	0	2	0	20	
6:30 PM	0	2	2	0	1	12	0	0	0	0	0	0	1	0	1	0	19	
6:35 PM	1	4	1	0	0	21	1	0	0	0	0	0	0	0	1	0	29	
6:40 PM	0	10	1	0	2	14	0	0	0	0	0	0	0	0	2	0	29	
6:45 PM	0	6	0	0	2	15	0	0	0	0	0	0	1	0	1	0	25	
6:50 PM	0	2	0	0	3	8	0	0	0	1	1	0	0	0	1	0	16	
6:55 PM	0	8	0	0	2	8	0	0	0	0	0	0	0	0	1	0	19	279
7:00 PM	0	2	1	0	3	14	0	0	0	0	0	0	1	1	1	0	23	277
7:05 PM	0	6	0	0	3	12	0	0	0	0	0	0	1	0	0	0	22	276
7:10 PM	0	3	0	0	1	4	0	0	0	0	0	0	0	0	0	0	8	256
7:15 PM	0	2	0	0	0	7	0	0	0	0	0	0	1	0	0	0	10	238
7:20 PM	0	7	0	0	0	6	0	0	0	0	0	0	2	0	1	0	16	236
7:25 PM	0	1	0	0	1	13	0	0	0	0	0	0	0	0	1	0	16	232
7:30 PM	0	1	1	0	0	16	0	0	0	0	0	0	0	0	0	0	18	231
7:35 PM	0	2	0	0	2	9	1	0	0	0	0	0	0	0	2	0	16	218
7:40 PM	0	1	1	0	4	5	0	0	0	0	1	0	0	0	0	0	12	201
7:45 PM	0	5	2	0	2	7	0	0	0	0	0	0	0	1	0	0	17	193
7:50 PM	0	1	3	0	1	7	0	0	1	0	0	0	1	0	1	0	15	192
7:55 PM	0	1	0	0	1	6	0	0	0	0	0	0	0	0	1	0	9	182

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	80	8	0	16	200	4	0	0	0	0	0	4	0	16	0	332
Heavy Trucks	0	4	0		0	0	0		0	0	0		0	0	0		4
Buses																	
Pedestrians		0				0				0				20			20
Bicycles	0	12	4		0	12	0		0	4	0		0	4	0		36
Scooters																	

Comments:

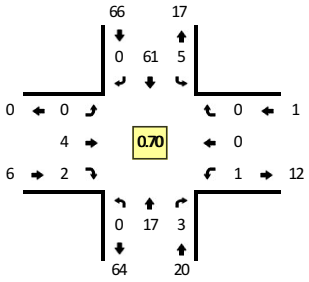
Report generated on 7/26/2023 12:40 PM

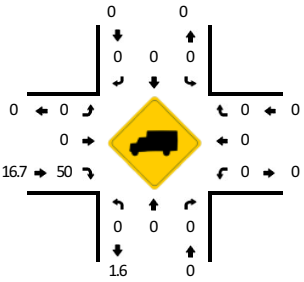
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

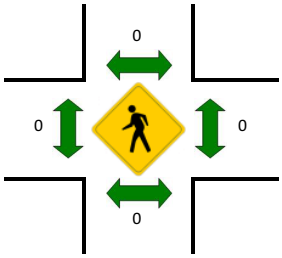
LOCATION: SE Water St -- SE Main St | **QC JOB #:** 16263726
CITY/STATE: Portland, OR | **DATE:** Thu, Jul 13 2023

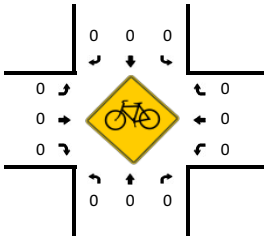
Peak-Hour: 10:00 PM -- 11:00 PM
Peak 15-Min: 10:00 PM -- 10:15 PM

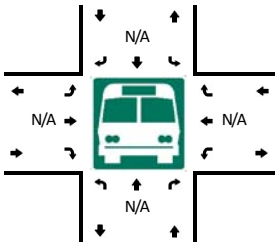


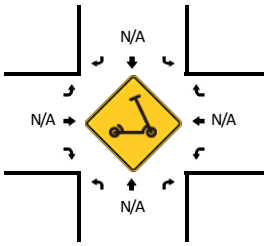


Quality Counts
DATA THAT DRIVES COMMUNITIES









5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Main St (Eastbound)				SE Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	3	0	0	0	9	0	0	0	0	0	0	0	0	0	0	12	
10:05 PM	0	0	0	0	1	12	0	0	0	0	0	0	0	0	0	0	13	
10:10 PM	0	1	1	0	0	5	0	0	0	1	0	0	0	0	0	0	8	
10:15 PM	0	4	0	0	0	5	0	0	0	0	0	0	0	0	0	0	9	
10:20 PM	0	3	0	0	0	5	0	0	0	0	0	0	0	0	0	0	8	
10:25 PM	0	1	0	0	0	5	0	0	0	1	1	0	0	0	0	0	8	
10:30 PM	0	2	0	0	1	3	0	0	0	0	0	0	1	0	0	0	7	
10:35 PM	0	0	1	0	3	3	0	0	0	0	1	0	0	0	0	0	8	
10:40 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	
10:45 PM	0	2	1	0	0	6	0	0	0	1	0	0	0	0	0	0	10	
10:50 PM	0	1	0	0	0	2	0	0	0	1	0	0	0	0	0	0	4	
10:55 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4	93
11:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	83
11:05 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	71
11:10 PM	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	6	69
11:15 PM	0	1	0	0	0	3	0	0	0	1	0	0	0	0	0	0	5	65
11:20 PM	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3	60
11:25 PM	0	0	1	0	0	4	0	0	0	0	0	0	0	0	0	0	5	57
11:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	51
11:35 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	45
11:40 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3	46
11:45 PM	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3	39
11:50 PM	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	4	39
11:55 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3	38

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	16	4	0	4	104	0	0	0	4	0	0	0	0	0	0	132
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 7/26/2023 12:40 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

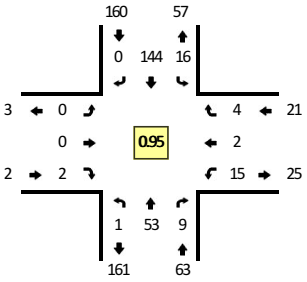
Type of peak hour being reported: Intersection Peak

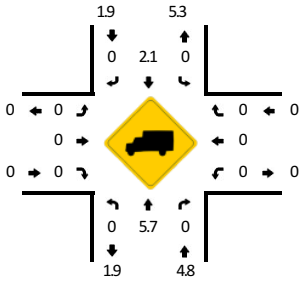
Method for determining peak hour: Total Entering Volume

LOCATION: SE Water St -- SE Main St
CITY/STATE: Portland, OR

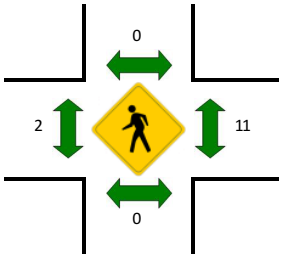
QC JOB #: 16263727
DATE: Sat, Jul 15 2023

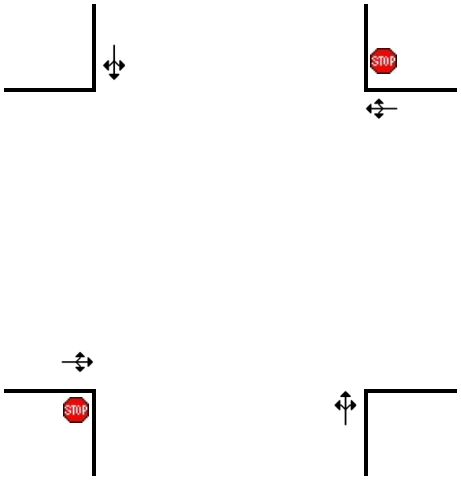
Peak-Hour: 6:05 PM -- 7:05 PM
Peak 15-Min: 6:05 PM -- 6:20 PM

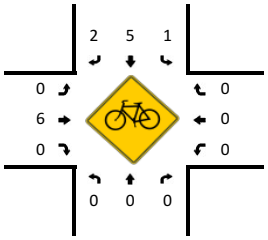


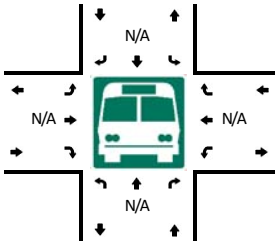


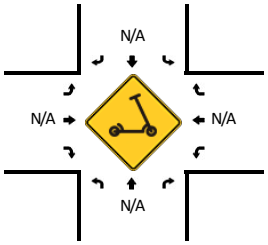
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Main St (Eastbound)				SE Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	4	0	0	0	3	0	0	0	0	0	0	0	0	1	0	8	
6:05 PM	0	3	1	0	2	21	0	0	0	0	0	0	2	0	2	0	31	
6:10 PM	0	1	1	0	0	10	0	0	0	0	0	0	2	0	0	0	14	
6:15 PM	1	2	1	0	0	13	0	0	0	0	0	0	2	0	1	0	20	
6:20 PM	0	5	1	0	2	10	0	0	0	0	0	0	1	0	0	0	19	
6:25 PM	0	7	4	0	2	9	0	0	0	0	0	0	1	0	1	0	24	
6:30 PM	0	3	0	0	0	13	0	0	0	0	1	0	0	1	0	0	18	
6:35 PM	0	6	0	0	0	11	0	0	0	0	0	0	3	0	0	0	20	
6:40 PM	0	6	0	0	0	13	0	0	0	0	0	0	0	0	0	0	19	
6:45 PM	0	3	0	0	3	12	0	0	0	0	0	0	0	0	0	0	18	
6:50 PM	0	5	1	0	4	13	0	0	0	0	0	0	1	0	0	0	24	
6:55 PM	0	9	0	0	2	9	0	0	0	0	1	0	0	1	0	0	22	237
7:00 PM	0	3	0	0	1	10	0	0	0	0	0	0	3	0	0	0	17	246
7:05 PM	0	3	2	0	2	6	0	0	0	0	0	0	1	0	1	0	15	230
7:10 PM	0	3	0	0	0	11	0	0	0	0	0	0	1	0	1	0	16	232
7:15 PM	0	1	0	0	1	18	0	0	0	0	0	0	0	0	0	0	20	232
7:20 PM	0	0	0	0	1	12	0	0	0	1	0	0	0	0	1	0	15	228
7:25 PM	0	0	1	0	4	13	0	0	0	0	0	0	0	0	0	0	18	222
7:30 PM	0	6	2	0	0	8	2	0	0	0	0	0	0	0	1	0	19	223
7:35 PM	0	1	1	0	0	12	0	0	1	0	0	0	2	0	0	0	17	220
7:40 PM	0	0	1	0	0	9	0	0	0	0	0	0	1	0	0	0	11	212
7:45 PM	1	3	0	0	5	6	0	0	0	0	0	0	0	0	0	0	15	209
7:50 PM	0	1	0	0	0	15	0	0	0	0	0	0	0	0	1	0	17	202
7:55 PM	0	4	1	0	0	27	0	0	0	0	0	0	0	0	1	0	33	213

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	24	12	0	8	176	0	0	0	0	0	0	24	0	12	0	260
Heavy Trucks	0	4	0		0	0	0		0	0	0		0	0	0		4
Buses																	
Pedestrians		0				0				0				4			4
Bicycles	0	0	0		0	0	4		0	12	0		0	0	0		16
Scooters																	

Comments:

Report generated on 7/26/2023 12:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

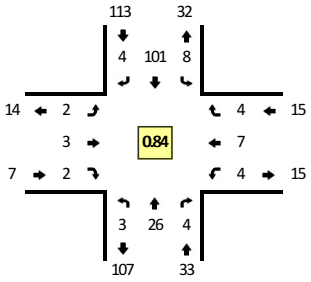
Type of peak hour being reported: Intersection Peak

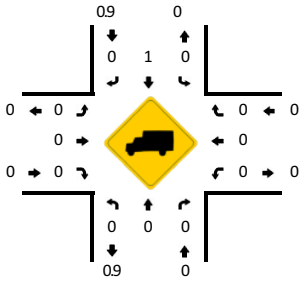
Method for determining peak hour: Total Entering Volume

LOCATION: SE Water St -- SE Main St
CITY/STATE: Portland, OR

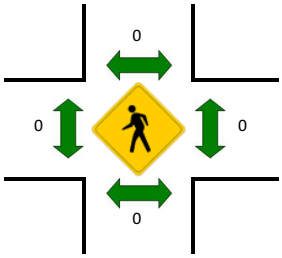
QC JOB #: 16263728
DATE: Sat, Jul 15 2023

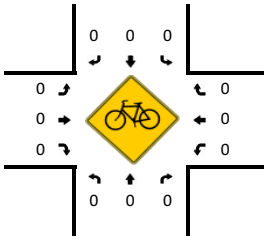
Peak-Hour: 10:00 PM -- 11:00 PM
Peak 15-Min: 10:25 PM -- 10:40 PM

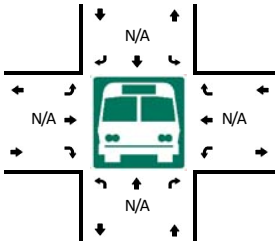


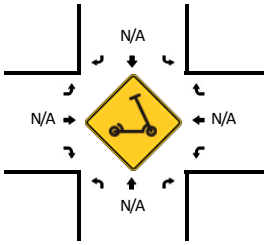


Quality Counts
DATA THAT DRIVES COMMUNITIES









5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Main St (Eastbound)				SE Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	1	0	0	0	3	0	0	0	1	0	0	0	1	0	0	6	
10:05 PM	0	3	0	0	0	9	1	0	1	0	0	0	1	2	0	0	17	
10:10 PM	0	3	1	0	0	9	0	0	0	0	0	0	0	0	1	0	14	
10:15 PM	0	2	1	0	0	9	1	0	1	0	0	0	0	0	0	0	14	
10:20 PM	0	2	1	0	3	4	0	0	0	0	0	0	1	0	0	0	11	
10:25 PM	0	3	0	0	1	13	0	0	0	0	1	0	1	0	1	0	20	
10:30 PM	0	1	1	0	1	10	0	0	0	0	0	0	0	1	0	0	14	
10:35 PM	0	0	0	0	0	13	0	0	0	0	1	0	1	1	0	0	16	
10:40 PM	0	2	0	0	0	9	0	0	0	1	0	0	0	0	0	0	12	
10:45 PM	1	2	0	0	1	7	0	0	0	1	0	0	0	1	0	0	13	
10:50 PM	0	4	0	0	2	4	0	0	0	0	0	0	0	0	0	0	10	
10:55 PM	2	3	0	0	0	11	2	0	0	0	0	0	0	1	2	0	21	168
11:00 PM	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4	166
11:05 PM	1	3	0	0	2	6	1	0	0	0	0	0	0	0	1	0	14	163
11:10 PM	0	1	0	0	2	12	0	0	0	1	0	0	0	1	0	0	17	166
11:15 PM	0	0	0	0	0	6	0	0	1	0	0	0	0	0	0	0	7	159
11:20 PM	0	0	0	0	1	5	1	0	2	0	0	0	0	0	0	0	9	157
11:25 PM	0	1	1	0	1	4	0	0	1	0	0	0	1	2	0	0	11	148
11:30 PM	0	2	0	0	0	8	0	0	0	0	0	0	0	0	0	0	10	144
11:35 PM	0	3	0	0	0	5	1	0	0	0	0	0	0	0	1	0	10	138
11:40 PM	0	2	0	0	1	7	0	0	1	0	1	0	0	0	0	0	12	138
11:45 PM	0	4	1	0	1	7	0	0	0	0	0	0	1	2	2	0	18	143
11:50 PM	0	1	0	0	3	4	0	0	0	0	1	0	0	0	0	0	9	142
11:55 PM	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	6	127

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	16	4	0	8	144	0	0	0	0	8	0	8	8	4	0	200
Heavy Trucks	0	0	0		0	4	0		0	0	0		0	0	0		4
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 7/26/2023 12:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

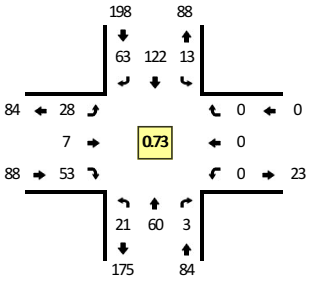
Type of peak hour being reported: Intersection Peak

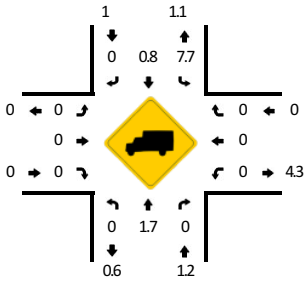
Method for determining peak hour: Total Entering Volume

LOCATION: SE Water St -- Hawthorne Ramp
CITY/STATE: Portland, OR

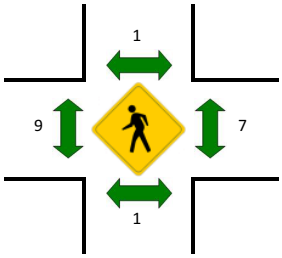
QC JOB #: 16263729
DATE: Thu, Jul 13 2023

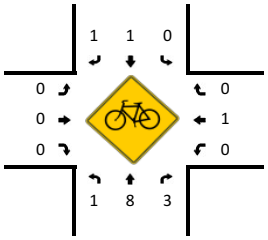
Peak-Hour: 6:00 PM -- 7:00 PM
Peak 15-Min: 6:05 PM -- 6:20 PM

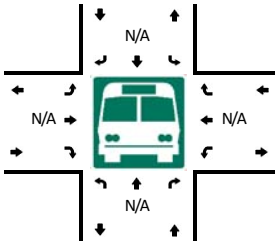


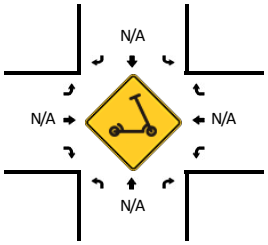


Quality Counts
DATA THAT DRIVES COMMUNITIES









5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				Hawthorne Ramp (Eastbound)				Hawthorne Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	2	7	0	0	0	10	6	0	3	0	8	0	0	0	0	0	36	
6:05 PM	2	4	0	0	1	8	11	0	3	4	6	0	0	0	0	0	39	
6:10 PM	5	2	0	0	1	14	6	0	5	1	7	0	0	0	0	0	41	
6:15 PM	2	9	1	0	2	13	7	0	4	0	8	0	0	0	0	0	46	
6:20 PM	1	6	0	0	1	7	4	0	1	0	7	0	0	0	0	0	27	
6:25 PM	4	2	1	0	0	6	7	0	4	0	7	0	0	0	0	0	31	
6:30 PM	0	4	0	0	2	7	6	0	1	0	4	0	0	0	0	0	24	
6:35 PM	0	8	0	0	3	18	3	0	3	1	3	0	0	0	0	0	39	
6:40 PM	0	4	0	0	0	14	2	0	2	0	2	0	0	0	0	0	24	
6:45 PM	1	4	0	0	2	13	2	0	0	0	0	0	0	0	0	0	22	
6:50 PM	1	3	0	0	1	8	4	0	2	1	1	0	0	0	0	0	21	
6:55 PM	3	7	1	0	0	4	5	0	0	0	0	0	0	0	0	0	20	370
7:00 PM	0	3	0	0	0	8	4	0	0	0	1	0	0	0	0	0	16	350
7:05 PM	0	4	0	0	1	7	4	0	1	1	0	0	0	0	0	0	18	329
7:10 PM	1	3	0	0	1	3	1	0	1	1	0	0	0	0	0	0	11	299
7:15 PM	0	2	0	0	1	5	2	0	0	0	0	0	0	0	0	0	10	263
7:20 PM	1	2	0	0	1	4	2	0	0	0	0	0	0	0	0	0	10	246
7:25 PM	0	1	0	0	1	9	3	0	0	0	0	0	0	0	0	0	14	229
7:30 PM	0	1	1	0	3	10	3	0	1	1	0	0	0	0	0	0	20	225
7:35 PM	2	1	0	0	2	6	10	0	0	0	0	0	0	0	0	0	21	207
7:40 PM	0	2	0	0	0	6	2	0	0	0	0	0	0	0	0	0	10	193
7:45 PM	0	1	0	0	0	6	2	0	2	0	0	0	0	0	0	0	11	182
7:50 PM	0	0	0	0	2	2	3	0	0	0	0	0	0	0	0	0	7	168
7:55 PM	0	0	0	0	0	7	1	0	1	0	0	0	0	0	0	0	9	157

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	36	60	4	0	16	140	96	0	48	20	84	0	0	0	0	0	504
Heavy Trucks	0	0	0		4	4	0		0	0	0		0	0	0		8
Buses																	
Pedestrians		4				0				8				4			16
Bicycles	0	8	4		0	0	0		0	0	0		0	0	0		12
Scooters																	

Comments:

Report generated on 7/26/2023 12:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

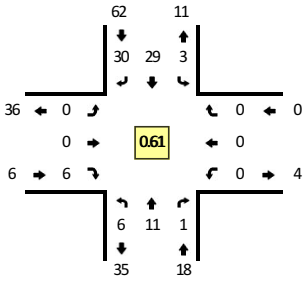
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

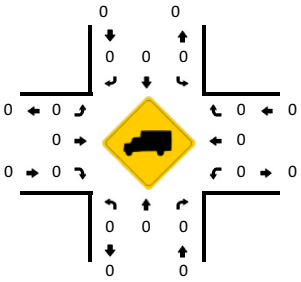
LOCATION: SE Water St -- Hawthorne Ramp
CITY/STATE: Portland, OR

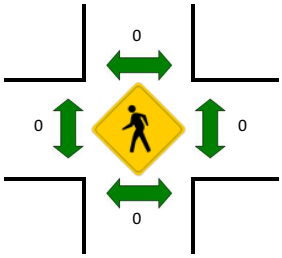
QC JOB #: 16263730
DATE: Thu, Jul 13 2023

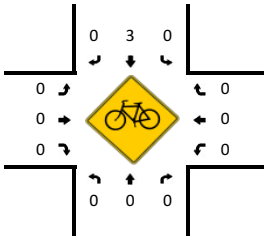
Peak-Hour: 10:00 PM -- 11:00 PM
Peak 15-Min: 10:00 PM -- 10:15 PM

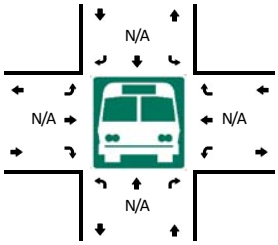


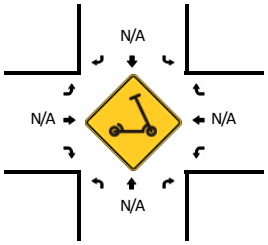
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				Hawthorne Ramp (Eastbound)				Hawthorne Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	4	0	0	0	3	6	0	0	0	1	0	0	0	0	0	14	
10:05 PM	0	1	0	0	1	5	7	0	0	0	0	0	0	0	0	0	14	
10:10 PM	0	1	0	0	0	5	1	0	0	0	0	0	0	0	0	0	7	
10:15 PM	1	0	0	0	0	2	3	0	0	0	0	0	0	0	0	0	6	
10:20 PM	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	4	
10:25 PM	3	1	0	0	0	3	2	0	0	0	1	0	0	0	0	0	10	
10:30 PM	0	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	4	
10:35 PM	0	0	0	0	0	1	3	0	0	0	4	0	0	0	0	0	8	
10:40 PM	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	3	
10:45 PM	1	2	1	0	0	3	2	0	0	0	0	0	0	0	0	0	9	
10:50 PM	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	3	
10:55 PM	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	4	86
11:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	73
11:05 PM	3	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	4	63
11:10 PM	1	0	0	0	0	3	2	0	0	0	0	0	0	0	0	0	6	62
11:15 PM	2	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	5	61
11:20 PM	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	4	61
11:25 PM	0	1	0	0	1	4	1	0	0	0	0	0	0	0	0	0	7	58
11:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	55
11:35 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	49
11:40 PM	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	3	49
11:45 PM	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	3	43
11:50 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	41
11:55 PM	0	1	0	0	0	1	2	0	0	0	0	0	0	0	0	0	4	41

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	24	0	0	4	52	56	0	0	0	4	0	0	0	0	0	140
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	4	0		0	0	0		0	0	0		4
Scooters																	

Comments:

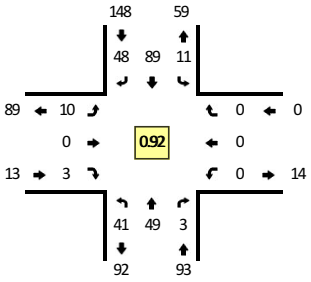
Report generated on 7/26/2023 12:41 PM

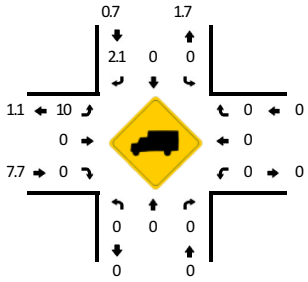
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

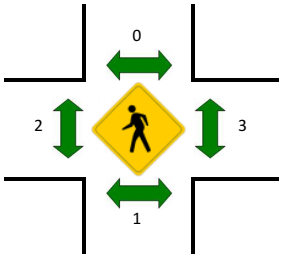
LOCATION: SE Water St -- Hawthorne Ramp | **QC JOB #:** 16263731
CITY/STATE: Portland, OR | **DATE:** Sat, Jul 15 2023

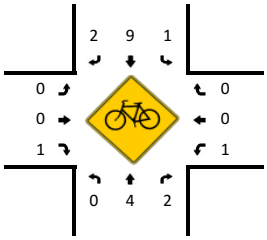
Peak-Hour: 6:05 PM -- 7:05 PM
Peak 15-Min: 6:35 PM -- 6:50 PM

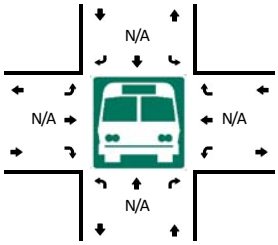


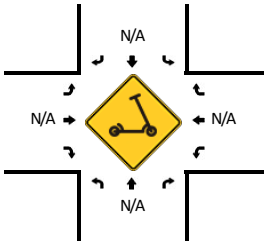


Quality Counts
DATA THAT DRIVES COMMUNITIES









5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				Hawthorne Ramp (Eastbound)				Hawthorne Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	6	3	0	0	0	1	3	0	0	0	0	0	0	0	0	0	13	
6:05 PM	1	3	0	0	3	9	10	0	1	0	1	0	0	0	0	0	28	
6:10 PM	2	2	0	0	0	9	3	0	0	0	0	0	0	0	0	0	16	
6:15 PM	2	4	0	0	1	7	5	0	0	0	1	0	0	0	0	0	20	
6:20 PM	9	3	0	0	0	6	4	0	0	0	0	0	0	0	0	0	22	
6:25 PM	4	5	0	0	0	6	1	0	1	0	0	0	0	0	0	0	17	
6:30 PM	4	2	0	0	1	7	3	0	0	0	0	0	0	0	0	0	17	
6:35 PM	5	6	1	0	0	12	2	0	1	0	0	0	0	0	0	0	27	
6:40 PM	1	4	0	0	1	4	7	0	1	0	0	0	0	0	0	0	18	
6:45 PM	6	4	0	0	1	9	4	0	0	0	0	0	0	0	0	0	24	
6:50 PM	3	6	2	0	3	7	3	0	1	0	0	0	0	0	0	0	25	
6:55 PM	2	7	0	0	0	7	2	0	1	0	0	0	0	0	0	0	19	246
7:00 PM	2	3	0	0	1	6	4	0	4	0	1	0	0	0	0	0	21	254
7:05 PM	1	5	0	0	2	4	2	0	0	0	0	0	0	0	0	0	14	240
7:10 PM	1	5	0	0	3	5	3	0	0	0	0	0	0	0	0	0	17	241
7:15 PM	1	0	0	0	0	13	8	0	1	0	1	0	0	0	0	0	24	245
7:20 PM	3	0	0	0	1	6	6	0	1	0	0	0	0	0	0	0	17	240
7:25 PM	0	1	1	0	1	9	2	0	0	0	0	0	0	0	0	0	14	237
7:30 PM	0	3	0	0	0	7	3	0	0	0	0	0	0	0	0	0	13	233
7:35 PM	0	0	1	0	1	9	5	0	1	0	0	0	0	0	0	0	17	223
7:40 PM	0	0	0	0	0	4	5	0	0	0	0	0	0	0	0	0	9	214
7:45 PM	0	2	0	0	2	5	1	0	2	0	0	0	0	0	0	0	12	202
7:50 PM	1	1	0	0	0	8	5	0	0	0	0	0	0	0	0	0	15	192
7:55 PM	2	4	0	0	1	26	7	0	2	0	0	0	0	0	0	0	42	215

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	48	56	4	0	8	100	52	0	8	0	0	0	0	0	0	0	276
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				4			4
Bicycles	0	0	0		0	12	0		0	0	0		0	0	0		12
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

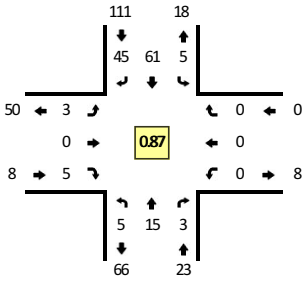
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

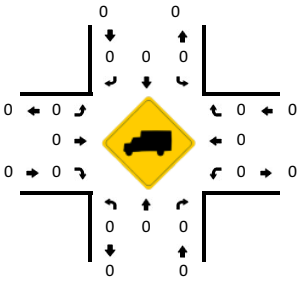
LOCATION: SE Water St -- Hawthorne Ramp
CITY/STATE: Portland, OR

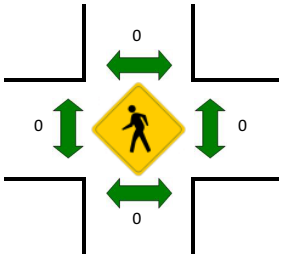
QC JOB #: 16263732
DATE: Sat, Jul 15 2023

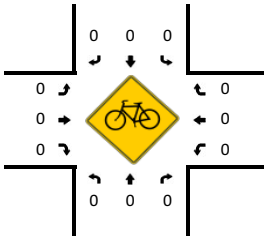
Peak-Hour: 10:00 PM -- 11:00 PM
Peak 15-Min: 10:25 PM -- 10:40 PM

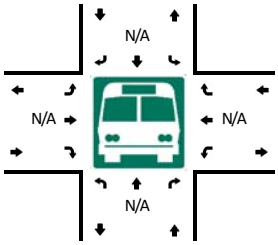


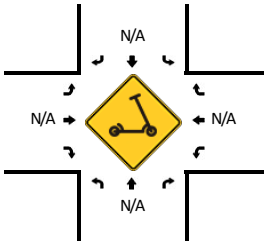
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				Hawthorne Ramp (Eastbound)				Hawthorne Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	0	0	0	1	4	3	0	0	0	0	0	0	0	0	0	8	
10:05 PM	1	2	0	0	1	4	1	0	1	0	2	0	0	0	0	0	12	
10:10 PM	0	2	0	0	0	9	3	0	0	0	0	0	0	0	0	0	14	
10:15 PM	0	1	0	0	0	3	5	0	0	0	0	0	0	0	0	0	9	
10:20 PM	0	0	1	0	1	4	1	0	0	0	0	0	0	0	0	0	7	
10:25 PM	1	1	1	0	0	7	9	0	0	0	0	0	0	0	0	0	19	
10:30 PM	0	1	0	0	1	6	2	0	0	0	0	0	0	0	0	0	10	
10:35 PM	0	1	0	0	1	2	8	0	0	0	0	0	0	0	0	0	12	
10:40 PM	1	1	0	0	0	7	4	0	1	0	0	0	0	0	0	0	14	
10:45 PM	1	3	0	0	0	6	3	0	0	0	1	0	0	0	0	0	14	
10:50 PM	0	2	1	0	0	2	2	0	1	0	1	0	0	0	0	0	9	
10:55 PM	1	1	0	0	0	7	4	0	0	0	1	0	0	0	0	0	14	142
11:00 PM	1	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	4	138
11:05 PM	0	3	0	0	0	7	0	0	1	0	0	0	0	0	0	0	11	137
11:10 PM	0	0	0	0	0	6	7	0	0	0	0	0	0	0	0	0	13	136
11:15 PM	0	0	0	0	0	4	3	0	0	0	0	0	0	0	0	0	7	134
11:20 PM	0	1	0	0	0	3	2	0	0	0	0	0	0	0	0	0	6	133
11:25 PM	0	2	0	0	0	3	2	0	0	0	0	0	0	0	0	0	7	121
11:30 PM	0	1	0	0	0	5	3	0	0	0	0	0	0	0	0	0	9	120
11:35 PM	0	2	0	0	1	5	0	0	0	0	0	0	0	0	0	0	8	116
11:40 PM	1	2	1	0	1	2	5	0	0	0	0	0	0	0	0	0	12	114
11:45 PM	0	3	1	0	0	4	5	0	1	0	0	0	0	0	0	0	14	114
11:50 PM	0	1	0	0	0	2	1	0	0	0	0	0	0	0	0	0	4	109
11:55 PM	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	5	100

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	12	4	0	8	60	76	0	0	0	0	0	0	0	0	0	164
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

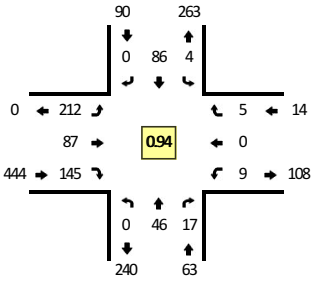
Type of peak hour being reported: Intersection Peak

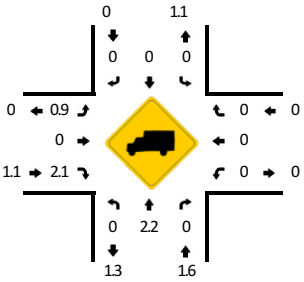
Method for determining peak hour: Total Entering Volume

LOCATION: SE Water St -- SE Yamhill St
CITY/STATE: Portland, OR

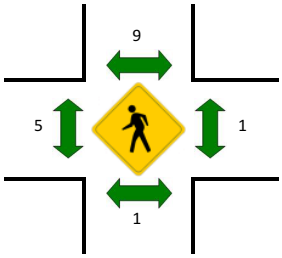
QC JOB #: 16263733
DATE: Thu, Jul 13 2023

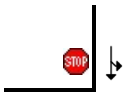
Peak-Hour: 6:10 PM -- 7:10 PM
Peak 15-Min: 6:10 PM -- 6:25 PM

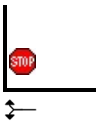


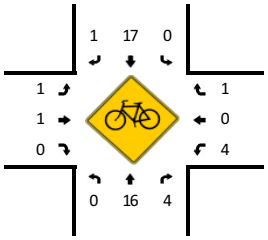


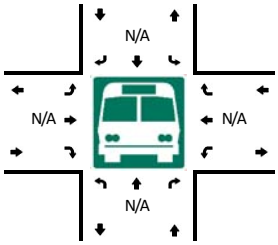
Quality Counts
DATA THAT DRIVES COMMUNITIES

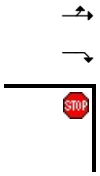


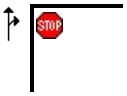


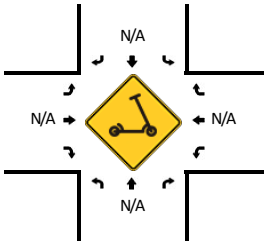












5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Yamhill St (Eastbound)				SE Yamhill St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	4	3	0	1	10	0	0	4	9	7	0	3	0	1	0	42	
6:05 PM	0	5	0	0	1	11	0	0	17	10	8	0	1	0	0	0	53	
6:10 PM	0	7	3	0	2	15	0	0	19	7	14	0	1	0	0	0	68	
6:15 PM	0	7	0	0	0	10	0	0	14	10	18	0	2	0	0	0	61	
6:20 PM	0	3	1	0	0	6	0	0	15	4	5	0	0	0	0	0	34	
6:25 PM	0	0	1	0	0	9	0	0	14	4	7	0	1	0	1	0	37	
6:30 PM	0	4	0	0	0	6	0	0	29	12	17	0	1	0	0	0	69	
6:35 PM	0	6	1	0	0	7	0	0	14	6	9	0	2	0	1	0	46	
6:40 PM	0	6	0	0	0	10	0	0	19	6	7	0	0	0	0	0	48	
6:45 PM	0	3	4	0	0	6	0	0	26	5	12	0	0	0	0	0	56	
6:50 PM	0	2	0	0	0	6	0	0	21	5	12	0	1	0	1	0	48	
6:55 PM	0	1	4	0	0	6	0	0	10	9	13	0	1	0	0	0	44	606
7:00 PM	0	3	1	0	0	3	0	0	17	9	12	0	0	0	1	0	46	610
7:05 PM	0	4	2	0	2	2	0	0	14	10	19	0	0	0	1	0	54	611
7:10 PM	0	1	0	0	1	2	0	0	21	7	13	0	1	0	0	0	46	589
7:15 PM	0	1	0	0	0	2	0	0	20	5	13	0	1	0	2	0	44	572
7:20 PM	0	4	3	0	0	3	0	0	11	6	11	0	1	0	1	0	40	578
7:25 PM	0	1	0	0	1	3	0	0	17	4	16	0	0	0	1	0	43	584
7:30 PM	0	2	0	0	0	4	0	0	20	12	17	0	0	0	1	0	56	571
7:35 PM	0	2	1	0	1	4	0	0	15	7	15	0	0	0	3	0	48	573
7:40 PM	0	1	1	0	0	2	0	0	10	9	12	0	2	0	0	0	37	562
7:45 PM	0	4	1	0	1	3	0	0	21	5	14	0	0	0	0	0	49	555
7:50 PM	0	2	1	0	0	2	0	0	13	6	7	0	1	0	0	0	32	539
7:55 PM	0	1	1	0	0	1	0	0	8	3	12	0	2	0	1	0	29	524

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	68	16	0	8	124	0	0	192	84	148	0	12	0	0	0	652
Heavy Trucks	0	0	0		0	0	0		0	0	8		0	0	0		8
Buses																	
Pedestrians		0				12				8				0			20
Bicycles	0	8	8		0	8	0		0	0	0		8	0	0		32
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

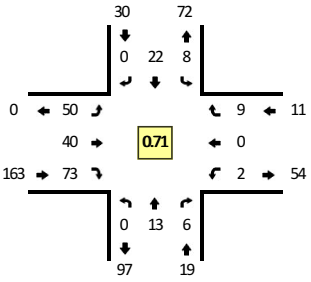
Type of peak hour being reported: Intersection Peak

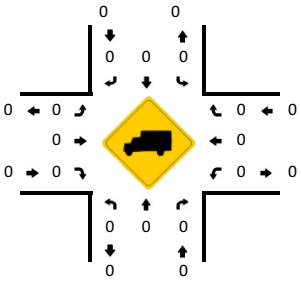
Method for determining peak hour: Total Entering Volume

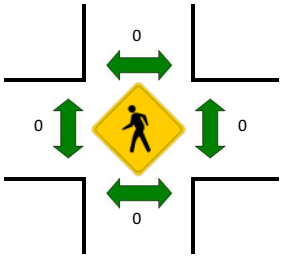
LOCATION: SE Water St -- SE Yamhill St
CITY/STATE: Portland, OR

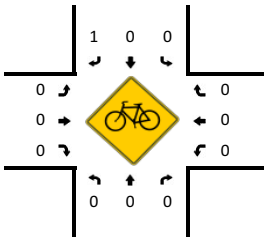
QC JOB #: 16263734
DATE: Thu, Jul 13 2023

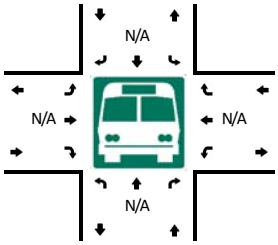
Peak-Hour: 10:00 PM -- 11:00 PM
Peak 15-Min: 10:00 PM -- 10:15 PM

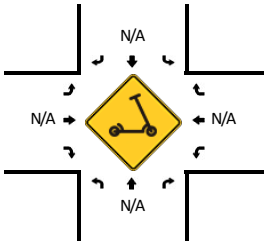












5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Yamhill St (Eastbound)				SE Yamhill St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	3	1	0	0	6	0	0	8	5	6	0	0	0	2	0	31	
10:05 PM	0	0	0	0	1	3	0	0	6	3	6	0	0	0	1	0	20	
10:10 PM	0	1	1	0	2	1	0	0	8	4	8	0	0	0	2	0	27	
10:15 PM	0	3	0	0	3	3	0	0	6	4	5	0	0	0	1	0	25	
10:20 PM	0	0	4	0	1	1	0	0	5	4	5	0	0	0	1	0	21	
10:25 PM	0	1	0	0	0	2	0	0	3	2	4	0	0	0	0	0	12	
10:30 PM	0	1	0	0	0	1	0	0	1	5	5	0	0	0	0	0	13	
10:35 PM	0	0	0	0	1	0	0	0	2	2	7	0	2	0	1	0	15	
10:40 PM	0	1	0	0	0	1	0	0	1	1	6	0	0	0	0	0	10	
10:45 PM	0	1	0	0	0	1	0	0	2	4	8	0	0	0	0	0	16	
10:50 PM	0	1	0	0	0	0	0	0	2	4	9	0	0	0	0	0	16	
10:55 PM	0	1	0	0	0	3	0	0	6	2	4	0	0	0	1	0	17	223
11:00 PM	0	0	1	0	0	0	0	0	2	1	4	0	0	0	0	0	8	200
11:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	180
11:10 PM	0	0	1	0	0	3	0	0	2	1	4	0	0	0	0	0	11	164
11:15 PM	0	1	0	0	0	1	0	0	3	2	2	0	0	0	0	0	9	148
11:20 PM	0	0	0	0	1	2	0	0	4	1	2	0	0	0	0	0	10	137
11:25 PM	0	1	0	0	0	3	0	0	3	3	4	0	0	0	1	0	15	140
11:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	128
11:35 PM	0	0	0	0	0	0	0	0	2	1	4	0	0	0	0	0	7	120
11:40 PM	0	0	0	0	0	2	0	0	3	0	3	0	0	0	0	0	8	118
11:45 PM	0	0	0	0	0	1	0	0	1	3	1	0	0	0	0	0	6	108
11:50 PM	0	0	0	0	0	0	0	0	4	3	4	0	0	0	0	0	11	103
11:55 PM	0	0	0	0	0	1	0	0	4	2	2	0	0	0	0	0	9	95

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	16	8	0	12	40	0	0	88	48	80	0	0	0	20	0	312
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

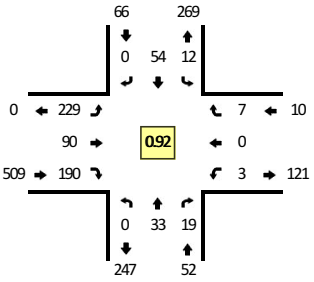
Type of peak hour being reported: Intersection Peak

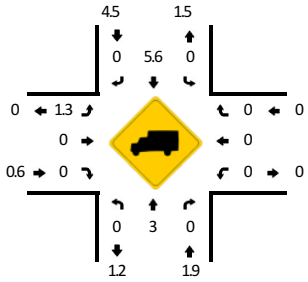
Method for determining peak hour: Total Entering Volume

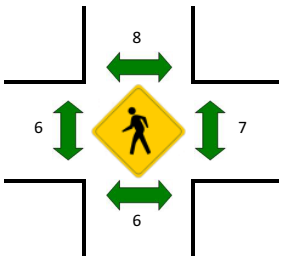
LOCATION: SE Water St -- SE Yamhill St
CITY/STATE: Portland, OR

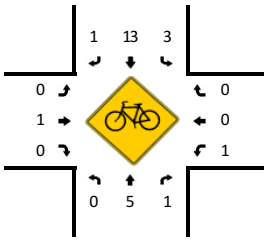
QC JOB #: 16263735
DATE: Sat, Jul 15 2023

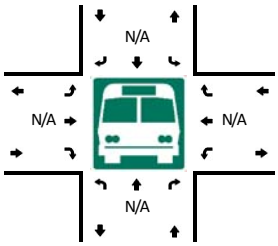
Peak-Hour: 6:05 PM -- 7:05 PM
Peak 15-Min: 6:05 PM -- 6:20 PM

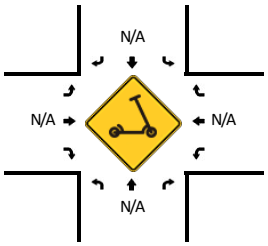












5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Yamhill St (Eastbound)				SE Yamhill St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	10	0	0	1	7	0	0	26	1	7	0	1	0	3	0	56	
6:05 PM	0	4	1	0	3	7	0	0	35	18	18	0	0	0	3	0	89	
6:10 PM	0	2	0	0	2	0	0	0	15	5	16	0	0	0	0	0	40	
6:15 PM	0	1	1	0	0	5	0	0	13	9	15	0	0	0	0	0	44	
6:20 PM	0	3	4	0	0	6	0	0	14	4	12	0	1	0	0	0	44	
6:25 PM	0	6	0	0	1	4	0	0	27	10	13	0	0	0	1	0	62	
6:30 PM	0	1	4	0	1	4	0	0	11	5	15	0	0	0	0	0	41	
6:35 PM	0	3	4	0	0	2	0	0	17	8	16	0	0	0	0	0	50	
6:40 PM	0	2	2	0	0	4	0	0	16	5	16	0	0	0	1	0	46	
6:45 PM	0	3	1	0	0	5	0	0	19	5	22	0	0	0	0	0	55	
6:50 PM	0	1	0	0	2	5	0	0	14	1	15	0	0	0	0	0	38	
6:55 PM	0	4	2	0	1	9	0	0	24	10	17	0	1	0	1	0	69	634
7:00 PM	0	3	0	0	2	3	0	0	24	10	15	0	1	0	1	0	59	637
7:05 PM	0	2	3	0	0	5	0	0	10	12	13	0	1	0	1	0	47	595
7:10 PM	0	2	0	0	0	3	0	0	16	8	11	0	0	0	6	0	46	601
7:15 PM	0	1	2	0	1	4	0	0	14	12	17	0	0	0	4	0	55	612
7:20 PM	0	1	1	0	0	4	0	0	23	8	11	0	0	0	1	0	49	617
7:25 PM	0	0	0	0	0	10	0	0	14	11	24	0	0	0	0	0	59	614
7:30 PM	0	1	4	0	0	5	0	0	13	2	11	0	0	0	0	0	36	609
7:35 PM	0	2	0	0	0	3	0	0	14	13	18	0	0	0	0	0	50	609
7:40 PM	0	0	0	0	0	4	0	0	16	6	11	0	1	0	0	0	38	601
7:45 PM	0	2	3	0	0	1	0	0	20	4	23	0	1	0	0	0	54	600
7:50 PM	0	4	0	0	0	3	0	0	11	3	17	0	0	0	0	0	38	600
7:55 PM	0	6	1	0	0	11	0	0	8	1	18	0	0	0	0	0	45	576

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	28	8	0	20	48	0	0	252	128	196	0	0	0	12	0	692
Heavy Trucks	0	0	0		0	0	0		4	0	0		0	0	0		4
Buses																	
Pedestrians		12				12				0				0			24
Bicycles	0	8	0		4	16	0		0	0	0		4	0	0		32
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

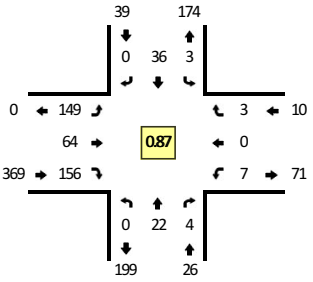
Type of peak hour being reported: Intersection Peak

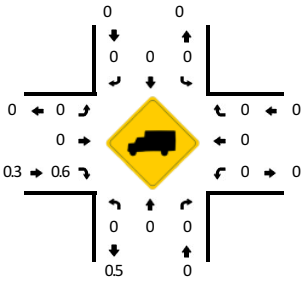
Method for determining peak hour: Total Entering Volume

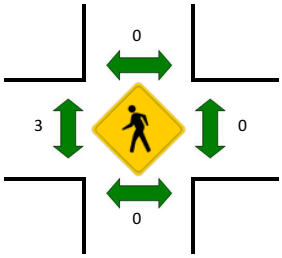
LOCATION: SE Water St -- SE Yamhill St
CITY/STATE: Portland, OR

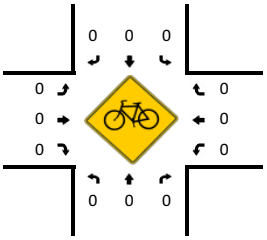
QC JOB #: 16263736
DATE: Sat, Jul 15 2023

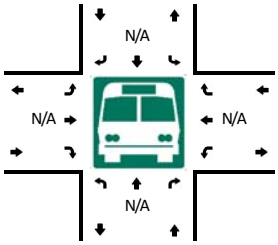
Peak-Hour: 10:05 PM -- 11:05 PM
Peak 15-Min: 10:15 PM -- 10:30 PM

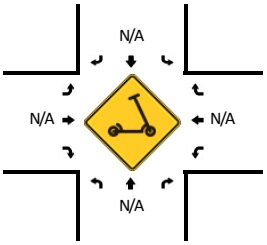












5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Yamhill St (Eastbound)				SE Yamhill St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	1	1	0	0	0	0	0	10	6	3	0	0	0	3	0	24	
10:05 PM	0	3	1	0	1	3	0	0	20	3	19	0	0	0	0	0	50	
10:10 PM	0	5	0	0	0	2	0	0	12	5	9	0	0	0	0	0	33	
10:15 PM	0	6	0	0	0	6	0	0	12	2	15	0	0	0	0	0	41	
10:20 PM	0	1	0	0	0	1	0	0	14	6	20	0	1	0	0	0	43	
10:25 PM	0	3	0	0	0	4	0	0	11	9	12	0	2	0	2	0	43	
10:30 PM	0	0	0	0	2	2	0	0	6	6	13	0	1	0	1	0	31	
10:35 PM	0	0	0	0	0	4	0	0	15	3	14	0	3	0	0	0	39	
10:40 PM	0	0	1	0	0	6	0	0	15	1	13	0	0	0	0	0	36	
10:45 PM	0	1	1	0	0	2	0	0	15	4	10	0	0	0	0	0	33	
10:50 PM	0	1	1	0	0	1	0	0	12	7	8	0	0	0	0	0	30	
10:55 PM	0	0	0	0	0	4	0	0	9	7	12	0	0	0	0	0	32	435
11:00 PM	0	2	0	0	0	1	0	0	8	11	11	0	0	0	0	0	33	444
11:05 PM	0	3	0	0	1	2	0	0	12	7	17	0	0	0	0	0	42	436
11:10 PM	0	1	0	0	1	6	0	0	9	5	13	0	0	0	0	0	35	438
11:15 PM	0	0	0	0	0	2	0	0	8	5	4	0	0	0	3	0	22	419
11:20 PM	0	0	0	0	0	4	0	0	10	5	11	0	0	0	0	0	30	406
11:25 PM	0	0	1	0	0	2	0	0	6	5	11	0	0	0	0	0	25	388
11:30 PM	0	0	0	0	0	2	0	0	6	6	9	0	0	0	0	0	23	380
11:35 PM	0	2	0	0	0	1	0	0	6	4	9	0	1	0	0	0	23	364
11:40 PM	0	3	0	0	0	3	0	0	5	5	9	0	0	0	0	0	25	353
11:45 PM	0	5	1	0	0	1	0	0	6	3	7	0	0	0	0	0	23	343
11:50 PM	0	1	1	0	1	2	0	0	2	2	5	0	0	0	0	0	14	327
11:55 PM	0	0	0	0	0	1	0	0	2	4	2	0	0	0	0	0	9	304

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	40	0	0	0	44	0	0	148	68	188	0	12	0	8	0	508
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

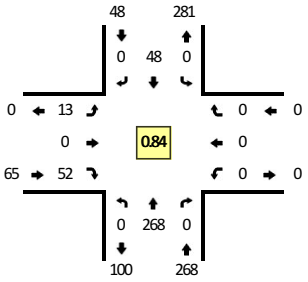
Type of peak hour being reported: Intersection Peak

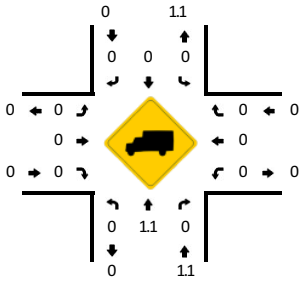
Method for determining peak hour: Total Entering Volume

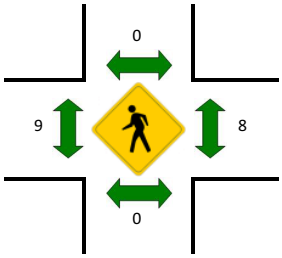
LOCATION: SE Water St -- Morrison Ramp
CITY/STATE: Portland, OR

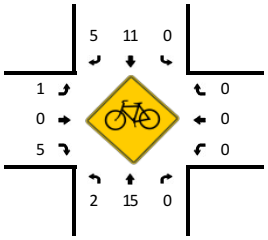
QC JOB #: 16263737
DATE: Thu, Jul 13 2023

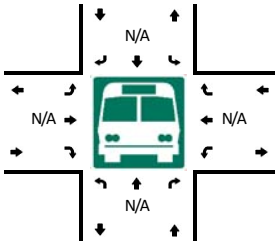
Peak-Hour: 6:05 PM -- 7:05 PM
Peak 15-Min: 6:05 PM -- 6:20 PM

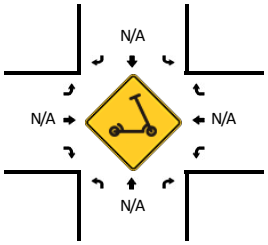












5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				Morrison Ramp (Eastbound)				Morrison Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	10	0	0	0	2	0	0	6	0	7	0	0	0	0	0	25	
6:05 PM	0	21	0	0	0	6	0	0	3	0	6	0	0	0	0	0	36	
6:10 PM	0	27	0	0	0	6	0	0	3	0	11	0	0	0	0	0	47	
6:15 PM	0	20	0	0	0	6	0	0	1	0	4	0	0	0	0	0	31	
6:20 PM	0	19	0	0	0	2	0	0	2	0	4	0	0	0	0	0	27	
6:25 PM	0	16	0	0	0	6	0	0	1	0	3	0	0	0	0	0	26	
6:30 PM	0	30	0	0	0	4	0	0	0	0	2	0	0	0	0	0	36	
6:35 PM	0	24	0	0	0	2	0	0	0	0	5	0	0	0	0	0	31	
6:40 PM	0	24	0	0	0	5	0	0	0	0	5	0	0	0	0	0	34	
6:45 PM	0	29	0	0	0	2	0	0	0	0	5	0	0	0	0	0	36	
6:50 PM	0	26	0	0	0	1	0	0	1	0	5	0	0	0	0	0	33	
6:55 PM	0	11	0	0	0	5	0	0	0	0	1	0	0	0	0	0	17	379
7:00 PM	0	21	0	0	0	3	0	0	2	0	1	0	0	0	0	0	27	381
7:05 PM	0	18	0	0	0	3	0	0	0	0	0	0	0	0	0	0	21	366
7:10 PM	0	21	0	0	0	3	0	0	1	0	0	0	0	0	0	0	25	344
7:15 PM	0	25	0	0	0	1	0	0	0	0	1	0	0	0	0	0	27	340
7:20 PM	0	15	0	0	0	2	0	0	0	0	1	0	0	0	0	0	18	331
7:25 PM	0	17	0	0	0	3	0	0	1	0	2	0	0	0	0	0	23	328
7:30 PM	0	23	0	0	0	2	0	0	0	0	2	0	0	0	0	0	27	319
7:35 PM	0	20	0	0	0	2	0	0	1	0	3	0	0	0	0	0	26	314
7:40 PM	0	12	0	0	0	1	0	0	1	0	1	0	0	0	0	0	15	295
7:45 PM	0	29	0	0	0	4	0	0	0	0	0	0	0	0	0	0	33	292
7:50 PM	0	15	0	0	0	1	0	0	0	0	1	0	0	0	0	0	17	276
7:55 PM	0	10	0	0	0	1	0	0	1	0	0	0	0	0	0	0	12	271

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	272	0	0	0	72	0	0	28	0	84	0	0	0	0	0	456
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				8				16			24
Bicycles	8	4	0		0	8	4		0	0	0		0	0	0		24
Scooters																	

Comments:

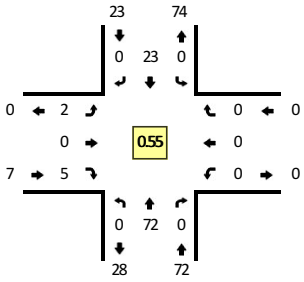
Report generated on 7/26/2023 12:41 PM

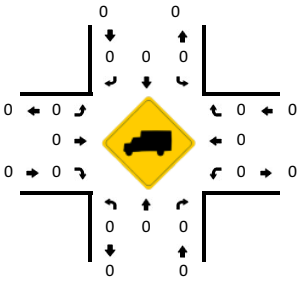
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

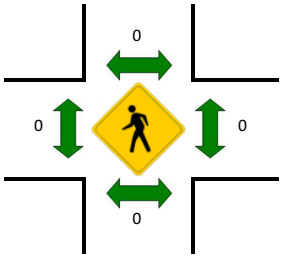
LOCATION: SE Water St -- Morrison Ramp | **QC JOB #:** 16263738
CITY/STATE: Portland, OR | **DATE:** Thu, Jul 13 2023

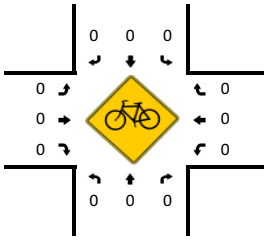
Peak-Hour: 10:00 PM -- 11:00 PM
Peak 15-Min: 10:00 PM -- 10:15 PM

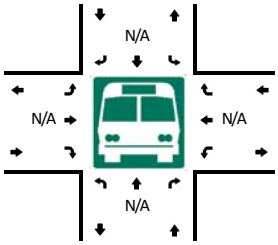


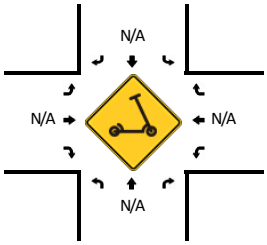


Quality Counts
DATA THAT DRIVES COMMUNITIES









5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				Morrison Ramp (Eastbound)				Morrison Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	12	0	0	0	5	0	0	0	0	1	0	0	0	0	0	18	
10:05 PM	0	8	0	0	0	4	0	0	0	0	0	0	0	0	0	0	12	
10:10 PM	0	13	0	0	0	1	0	0	1	0	1	0	0	0	0	0	16	
10:15 PM	0	9	0	0	0	5	0	0	0	0	0	0	0	0	0	0	14	
10:20 PM	0	7	0	0	0	1	0	0	0	0	1	0	0	0	0	0	9	
10:25 PM	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	0	6	
10:30 PM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3	
10:35 PM	0	3	0	0	0	1	0	0	1	0	0	0	0	0	0	0	5	
10:40 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	
10:45 PM	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5	
10:50 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
10:55 PM	0	7	0	0	0	2	0	0	0	0	1	0	0	0	0	0	10	102
11:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	86
11:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	74
11:10 PM	0	2	0	0	0	2	0	0	1	0	1	0	0	0	0	0	6	64
11:15 PM	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5	55
11:20 PM	0	4	0	0	0	2	0	0	1	0	1	0	0	0	0	0	8	54
11:25 PM	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	8	56
11:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	54
11:35 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	51
11:40 PM	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	5	54
11:45 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	51
11:50 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	51
11:55 PM	0	6	0	0	0	1	0	0	1	0	0	0	0	0	0	0	8	49

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	132	0	0	0	40	0	0	4	0	8	0	0	0	0	0	184
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

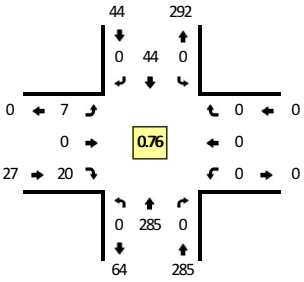
Type of peak hour being reported: Intersection Peak

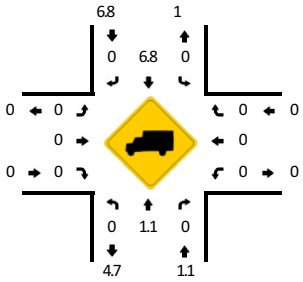
Method for determining peak hour: Total Entering Volume

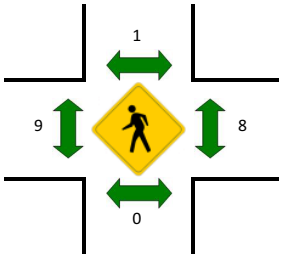
LOCATION: SE Water St -- Morrison Ramp
CITY/STATE: Portland, OR

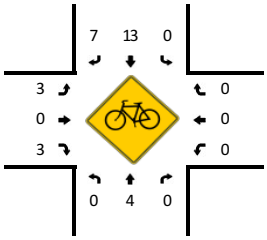
QC JOB #: 16263739
DATE: Sat, Jul 15 2023

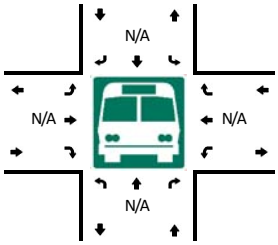
Peak-Hour: 6:00 PM -- 7:00 PM
Peak 15-Min: 6:00 PM -- 6:15 PM

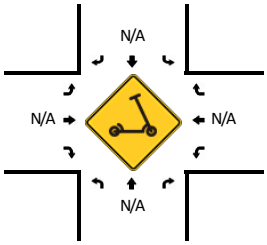












5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				Morrison Ramp (Eastbound)				Morrison Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	41	0	0	0	4	0	0	0	0	2	0	0	0	0	0	47	
6:05 PM	0	40	0	0	0	5	0	0	1	0	2	0	0	0	0	0	48	
6:10 PM	0	18	0	0	0	1	0	0	2	0	1	0	0	0	0	0	22	
6:15 PM	0	17	0	0	0	4	0	0	0	0	1	0	0	0	0	0	22	
6:20 PM	0	16	0	0	0	4	0	0	0	0	2	0	0	0	0	0	22	
6:25 PM	0	36	0	0	0	4	0	0	0	0	1	0	0	0	0	0	41	
6:30 PM	0	14	0	0	0	4	0	0	0	0	1	0	0	0	0	0	19	
6:35 PM	0	20	0	0	0	1	0	0	1	0	1	0	0	0	0	0	23	
6:40 PM	0	18	0	0	0	4	0	0	2	0	0	0	0	0	0	0	24	
6:45 PM	0	20	0	0	0	4	0	0	0	0	1	0	0	0	0	0	25	
6:50 PM	0	16	0	0	0	3	0	0	1	0	4	0	0	0	0	0	24	
6:55 PM	0	29	0	0	0	6	0	0	0	0	4	0	0	0	0	0	39	356
7:00 PM	0	27	0	0	0	4	0	0	1	0	1	0	0	0	0	0	33	342
7:05 PM	0	16	0	0	0	1	0	0	0	0	3	0	0	0	0	0	20	314
7:10 PM	0	25	0	0	0	1	0	0	0	0	2	0	0	0	0	0	28	320
7:15 PM	0	19	0	0	0	4	0	0	2	0	1	0	0	0	0	0	26	324
7:20 PM	0	25	0	0	0	5	0	0	1	0	0	0	0	0	0	0	31	333
7:25 PM	0	14	0	0	0	6	0	0	0	0	4	0	0	0	0	0	24	316
7:30 PM	0	14	0	0	0	4	0	0	0	0	2	0	0	0	0	0	20	317
7:35 PM	0	16	0	0	0	2	0	0	0	0	1	0	0	0	0	0	19	313
7:40 PM	0	16	0	0	0	3	0	0	0	0	2	0	0	0	0	0	21	310
7:45 PM	0	22	0	0	0	0	0	0	0	0	1	0	0	0	0	0	23	308
7:50 PM	0	15	0	0	0	1	0	0	1	0	2	0	0	0	0	0	19	303
7:55 PM	0	14	0	0	0	10	0	0	0	0	1	0	0	0	0	0	25	289

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	396	0	0	0	40	0	0	12	0	20	0	0	0	0	0	468
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				4				8			12
Bicycles	0	0	0		0	12	12		8	0	0		0	0	0		32
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

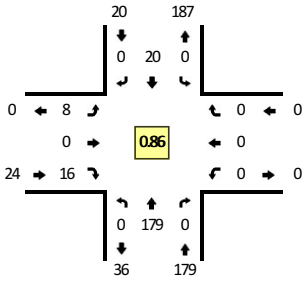
Type of peak hour being reported: Intersection Peak

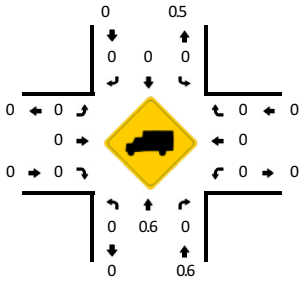
Method for determining peak hour: Total Entering Volume

LOCATION: SE Water St -- Morrison Ramp
CITY/STATE: Portland, OR

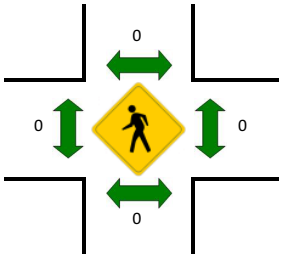
QC JOB #: 16263740
DATE: Sat, Jul 15 2023

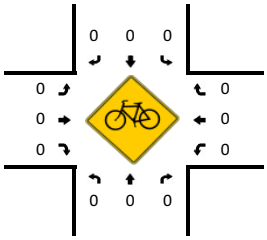
Peak-Hour: 10:00 PM -- 11:00 PM
Peak 15-Min: 10:05 PM -- 10:20 PM

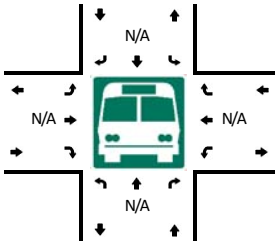


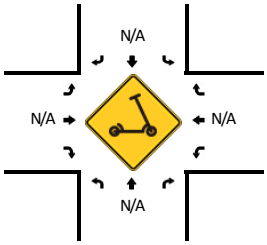


Quality Counts
DATA THAT DRIVES COMMUNITIES









5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				Morrison Ramp (Eastbound)				Morrison Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	16	0	0	0	1	0	0	0	0	1	0	0	0	0	0	18	
10:05 PM	0	20	0	0	0	1	0	0	0	0	2	0	0	0	0	0	23	
10:10 PM	0	17	0	0	0	1	0	0	1	0	1	0	0	0	0	0	20	
10:15 PM	0	17	0	0	0	5	0	0	0	0	0	0	0	0	0	0	22	
10:20 PM	0	15	0	0	0	1	0	0	0	0	0	0	0	0	0	0	16	
10:25 PM	0	17	0	0	0	1	0	0	2	0	3	0	0	0	0	0	23	
10:30 PM	0	12	0	0	0	1	0	0	0	0	2	0	0	0	0	0	15	
10:35 PM	0	13	0	0	0	2	0	0	0	0	1	0	0	0	0	0	16	
10:40 PM	0	12	0	0	0	5	0	0	1	0	2	0	0	0	0	0	20	
10:45 PM	0	17	0	0	0	1	0	0	2	0	1	0	0	0	0	0	21	
10:50 PM	0	13	0	0	0	0	0	0	2	0	1	0	0	0	0	0	16	
10:55 PM	0	10	0	0	0	1	0	0	0	0	2	0	0	0	0	0	13	223
11:00 PM	0	11	0	0	0	1	0	0	0	0	0	0	0	0	0	0	12	217
11:05 PM	0	15	0	0	0	4	0	0	0	0	2	0	0	0	0	0	21	215
11:10 PM	0	9	0	0	0	6	0	0	0	0	1	0	0	0	0	0	16	211
11:15 PM	0	12	0	0	0	1	0	0	0	0	1	0	0	0	0	0	14	203
11:20 PM	0	8	0	0	0	3	0	0	1	0	1	0	0	0	0	0	13	200
11:25 PM	0	6	0	0	0	2	0	0	1	0	0	0	0	0	0	0	9	186
11:30 PM	0	6	0	0	0	2	0	0	1	0	0	0	0	0	0	0	9	180
11:35 PM	0	7	0	0	0	1	0	0	0	0	0	0	0	0	0	0	8	172
11:40 PM	0	8	0	0	0	2	0	0	0	0	2	0	0	0	0	0	12	164
11:45 PM	0	10	0	0	0	1	0	0	1	0	0	0	0	0	0	0	12	155
11:50 PM	0	2	0	0	0	2	0	0	1	0	0	0	0	0	0	0	5	144
11:55 PM	0	2	0	0	0	1	0	0	1	0	1	0	0	0	0	0	5	136

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	216	0	0	0	28	0	0	4	0	12	0	0	0	0	0	260
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

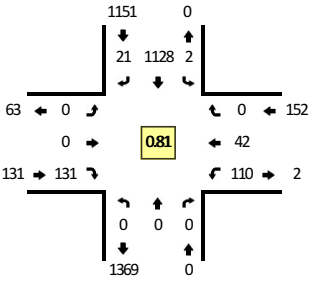
Report generated on 7/26/2023 12:41 PM

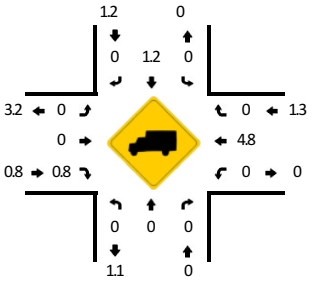
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

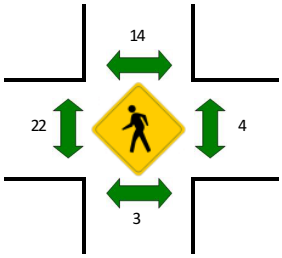
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

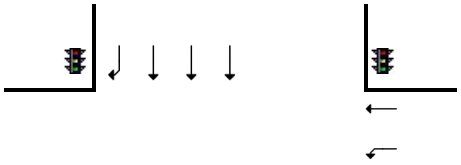
LOCATION: SE MLK Jr Blvd -- SE Stark St | **QC JOB #:** 16263741
CITY/STATE: Portland, OR | **DATE:** Thu, Jul 13 2023

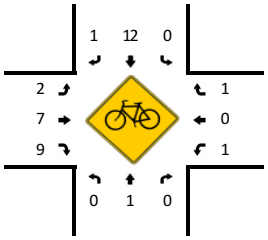
Peak-Hour: 6:00 PM -- 7:00 PM
Peak 15-Min: 6:00 PM -- 6:15 PM

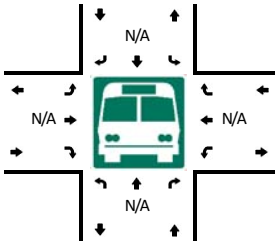


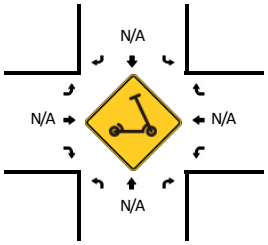












5-Min Count Period Beginning At	SE MLK Jr Blvd (Northbound)				SE MLK Jr Blvd (Southbound)				SE Stark St (Eastbound)				SE Stark St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	0	0	0	0	124	0	0	0	0	11	0	10	3	0	0	148	
6:05 PM	0	0	0	0	0	116	4	0	0	0	7	0	11	6	0	0	144	
6:10 PM	0	0	0	0	0	115	3	0	0	0	15	0	14	2	0	0	149	
6:15 PM	0	0	0	0	1	109	5	0	0	0	13	0	8	5	0	0	141	
6:20 PM	0	0	0	0	0	117	1	0	0	0	8	0	6	1	0	0	133	
6:25 PM	0	0	0	0	0	80	0	0	0	0	11	0	10	4	0	0	105	
6:30 PM	0	0	0	0	0	100	1	0	0	0	8	0	5	2	0	0	116	
6:35 PM	0	0	0	0	0	85	0	0	0	0	10	0	16	7	0	0	118	
6:40 PM	0	0	0	0	1	78	0	0	0	0	7	0	6	3	0	0	95	
6:45 PM	0	0	0	0	0	75	3	0	0	0	12	0	9	4	0	0	103	
6:50 PM	0	0	0	0	0	65	1	0	0	0	15	0	7	2	0	0	90	
6:55 PM	0	0	0	0	0	64	3	0	0	0	14	0	8	3	0	0	92	1434
7:00 PM	0	0	0	0	0	73	2	0	0	0	11	0	9	1	0	0	96	1382
7:05 PM	0	0	0	0	0	65	1	0	0	0	11	0	8	1	0	0	86	1324
7:10 PM	0	0	0	0	0	59	1	0	0	0	15	0	5	1	0	0	81	1256
7:15 PM	0	0	0	0	0	71	0	0	0	0	14	0	6	2	0	0	93	1208
7:20 PM	0	0	0	0	0	77	1	0	0	0	10	0	4	3	0	0	95	1170
7:25 PM	0	0	0	0	0	61	0	0	0	0	4	0	3	2	0	0	70	1135
7:30 PM	0	0	0	0	0	80	1	0	0	0	6	0	6	2	0	0	95	1114
7:35 PM	0	0	0	0	0	60	0	0	0	0	8	0	10	1	0	0	79	1075
7:40 PM	0	0	0	0	0	56	1	0	0	0	11	0	10	0	0	0	78	1058
7:45 PM	0	0	0	0	0	59	1	0	0	0	11	0	9	2	0	0	82	1037
7:50 PM	0	0	0	0	0	56	1	0	0	0	13	0	5	0	0	0	75	1022
7:55 PM	0	0	0	0	0	56	0	0	0	0	6	0	5	1	0	0	68	998

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	1420	28	0	0	0	132	0	140	44	0	0	1764
Heavy Trucks	0	0	0		0	20	0		0	0	0		0	4	0		24
Buses																	
Pedestrians		0				20				32				0			52
Bicycles	0	0	0		0	8	0		4	4	0		0	0	0		16
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

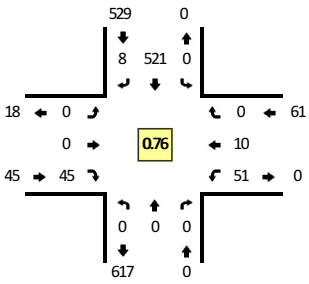
Type of peak hour being reported: Intersection Peak

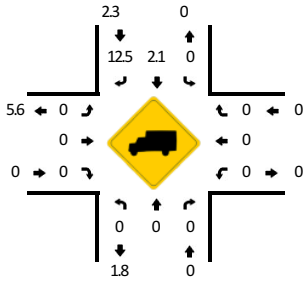
Method for determining peak hour: Total Entering Volume

LOCATION: SE MLK Jr Blvd -- SE Stark St
CITY/STATE: Portland, OR

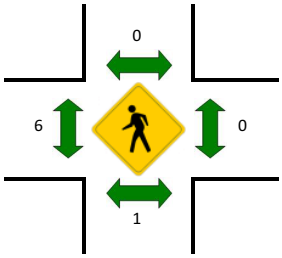
QC JOB #: 16263742
DATE: Thu, Jul 13 2023

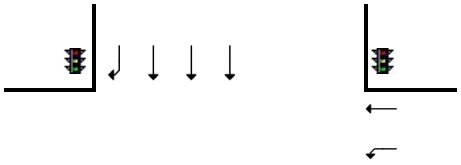
Peak-Hour: 10:00 PM -- 11:00 PM
Peak 15-Min: 10:00 PM -- 10:15 PM

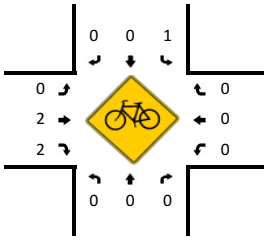


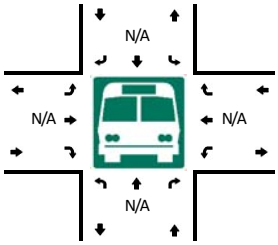


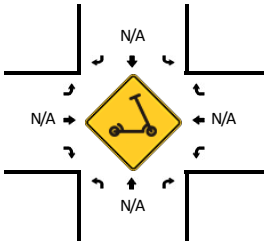
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	SE MLK Jr Blvd (Northbound)				SE MLK Jr Blvd (Southbound)				SE Stark St (Eastbound)				SE Stark St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	0	0	0	0	58	1	0	0	0	8	0	4	1	0	0	72	
10:05 PM	0	0	0	0	0	53	1	0	0	0	3	0	8	0	0	0	65	
10:10 PM	0	0	0	0	0	61	1	0	0	0	6	0	4	1	0	0	73	
10:15 PM	0	0	0	0	0	46	2	0	0	0	5	0	3	3	0	0	59	
10:20 PM	0	0	0	0	0	41	0	0	0	0	1	0	2	1	0	0	45	
10:25 PM	0	0	0	0	0	43	1	0	0	0	2	0	5	0	0	0	51	
10:30 PM	0	0	0	0	0	50	0	0	0	0	3	0	5	0	0	0	58	
10:35 PM	0	0	0	0	0	44	0	0	0	0	2	0	11	1	0	0	58	
10:40 PM	0	0	0	0	0	39	0	0	0	0	1	0	5	0	0	0	45	
10:45 PM	0	0	0	0	0	34	0	0	0	0	5	0	0	1	0	0	40	
10:50 PM	0	0	0	0	0	27	2	0	0	0	2	0	2	1	0	0	34	
10:55 PM	0	0	0	0	0	25	0	0	0	0	7	0	2	1	0	0	35	635
11:00 PM	0	0	0	0	0	42	0	0	0	0	2	0	5	0	0	0	49	612
11:05 PM	0	0	0	0	0	32	0	0	0	0	0	0	2	1	0	0	35	582
11:10 PM	0	0	0	0	0	26	0	0	0	0	2	0	3	0	0	0	31	540
11:15 PM	0	0	0	0	0	33	1	0	0	0	2	0	5	1	0	0	42	523
11:20 PM	0	0	0	0	0	40	0	0	0	0	1	0	7	1	0	0	49	527
11:25 PM	0	0	0	0	0	16	0	0	0	0	1	0	2	0	0	0	19	495
11:30 PM	0	0	0	0	0	32	1	0	0	0	0	0	2	0	0	0	35	472
11:35 PM	0	0	0	0	0	22	0	0	0	0	2	0	2	1	0	0	27	441
11:40 PM	0	0	0	0	0	30	1	0	0	0	1	0	1	0	0	0	33	429
11:45 PM	0	0	0	0	0	34	0	0	0	0	2	0	2	0	0	0	38	427
11:50 PM	0	0	0	0	0	16	0	0	0	0	1	0	4	0	0	0	21	414
11:55 PM	0	0	0	0	0	15	0	0	0	0	2	0	3	0	0	0	20	399

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	688	12	0	0	0	68	0	64	8	0	0	840
Heavy Trucks	0	0	0		0	16	4		0	0	0		0	0	0		20
Buses																	
Pedestrians		0				0				8				0			8
Bicycles	0	0	0		0	0	0		0	0	8		0	0	0		8
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

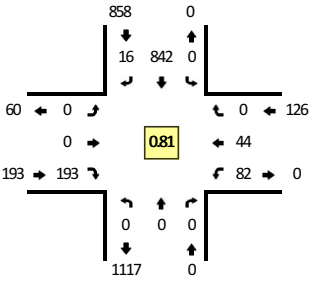
Type of peak hour being reported: Intersection Peak

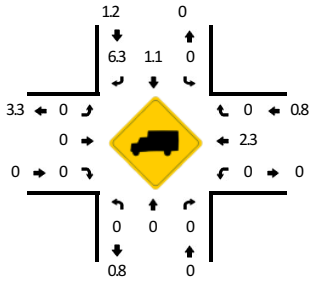
Method for determining peak hour: Total Entering Volume

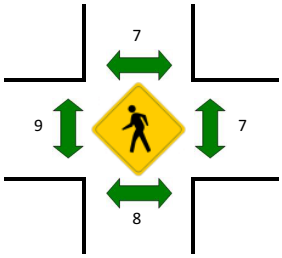
LOCATION: SE MLK Jr Blvd -- SE Stark St
CITY/STATE: Portland, OR

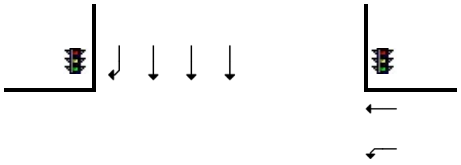
QC JOB #: 16263743
DATE: Sat, Jul 15 2023

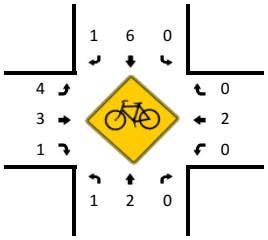
Peak-Hour: 6:05 PM -- 7:05 PM
Peak 15-Min: 6:05 PM -- 6:20 PM

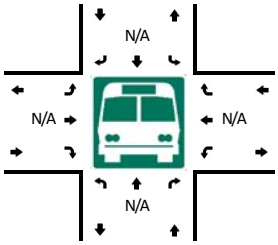


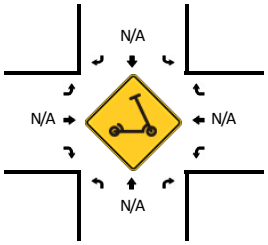












5-Min Count Period Beginning At	SE MLK Jr Blvd (Northbound)				SE MLK Jr Blvd (Southbound)				SE Stark St (Eastbound)				SE Stark St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	0	0	0	0	56	0	0	0	0	35	0	4	4	0	0	99	
6:05 PM	0	0	0	0	0	87	3	0	0	0	41	0	5	6	0	0	142	
6:10 PM	0	0	0	0	0	74	1	0	0	0	25	0	5	2	0	0	107	
6:15 PM	0	0	0	0	0	82	1	0	0	0	15	0	11	7	0	0	116	
6:20 PM	0	0	0	0	0	73	2	0	0	0	14	0	7	4	0	0	100	
6:25 PM	0	0	0	0	0	69	1	0	0	0	18	0	6	6	0	0	100	
6:30 PM	0	0	0	0	0	49	2	0	0	0	5	0	3	3	0	0	62	
6:35 PM	0	0	0	0	0	62	0	0	0	0	12	0	6	1	0	0	81	
6:40 PM	0	0	0	0	0	71	1	0	0	0	7	0	8	4	0	0	91	
6:45 PM	0	0	0	0	0	63	3	0	0	0	1	0	6	3	0	0	76	
6:50 PM	0	0	0	0	0	65	2	0	0	0	4	0	4	4	0	0	79	
6:55 PM	0	0	0	0	0	64	0	0	0	0	23	0	9	1	0	0	97	1150
7:00 PM	0	0	0	0	0	83	0	0	0	0	28	0	12	3	0	0	126	1177
7:05 PM	0	0	0	0	0	50	1	0	0	0	14	0	5	3	0	0	73	1108
7:10 PM	0	0	0	0	0	71	2	0	0	0	16	0	9	5	0	0	103	1104
7:15 PM	0	0	0	0	0	61	0	0	0	0	12	0	7	1	0	0	81	1069
7:20 PM	0	0	0	0	0	64	1	0	0	0	16	0	5	4	0	0	90	1059
7:25 PM	0	0	0	0	0	67	1	0	0	0	16	0	3	3	0	0	90	1049
7:30 PM	0	0	0	0	0	63	1	0	0	0	6	0	13	3	0	0	86	1073
7:35 PM	0	0	0	0	0	69	1	0	0	0	10	0	12	2	0	0	94	1086
7:40 PM	0	0	0	0	0	75	1	0	0	0	9	0	4	3	0	0	92	1087
7:45 PM	0	0	0	0	0	57	0	0	0	0	16	0	6	4	0	0	83	1094
7:50 PM	0	0	0	0	0	62	0	0	0	0	4	0	12	1	0	0	79	1094
7:55 PM	0	0	0	0	1	51	0	0	0	0	1	0	7	2	0	0	62	1059

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	972	20	0	0	0	324	0	84	60	0	0	1460
Heavy Trucks	0	0	0		0	12	0		0	0	0		0	0	0		12
Buses																	
Pedestrians		20				8				20				4			52
Bicycles	0	4	0		0	4	0		0	4	4		0	0	0		16
Scooters																	

Comments:

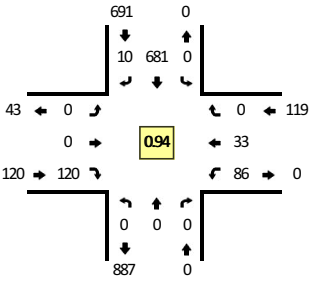
Report generated on 7/26/2023 12:41 PM

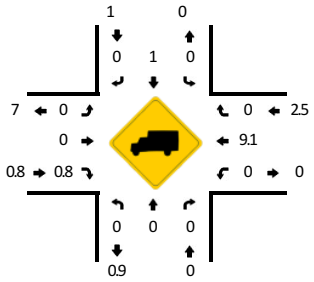
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

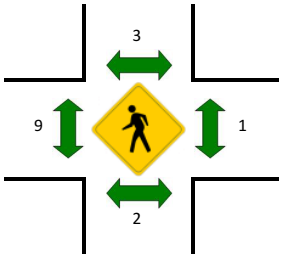
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

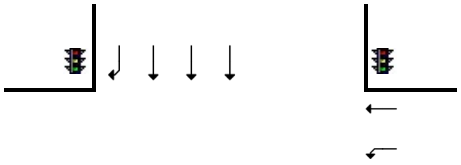
LOCATION: SE MLK Jr Blvd -- SE Stark St | **QC JOB #:** 16263744
CITY/STATE: Portland, OR | **DATE:** Sat, Jul 15 2023

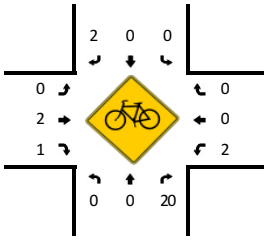
Peak-Hour: 10:05 PM -- 11:05 PM
Peak 15-Min: 10:30 PM -- 10:45 PM

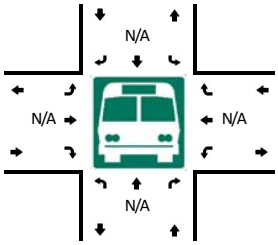


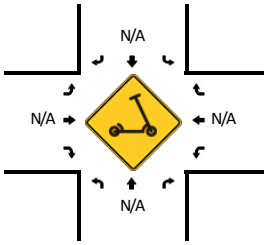












5-Min Count Period Beginning At	SE MLK Jr Blvd (Northbound)				SE MLK Jr Blvd (Southbound)				SE Stark St (Eastbound)				SE Stark St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	0	0	0	0	48	0	0	0	0	5	0	3	1	0	0	57	
10:05 PM	0	0	0	0	0	65	0	0	0	0	16	0	5	2	0	0	88	
10:10 PM	0	0	0	0	0	64	0	0	0	0	11	0	4	2	0	0	81	
10:15 PM	0	0	0	0	0	55	0	0	0	0	10	0	7	2	0	0	74	
10:20 PM	0	0	0	0	0	71	0	0	0	0	7	0	9	2	0	0	89	
10:25 PM	0	0	0	0	0	59	1	0	0	0	13	0	5	2	0	0	80	
10:30 PM	0	0	0	0	0	60	1	0	0	0	7	0	4	5	0	0	77	
10:35 PM	0	0	0	0	0	61	3	0	0	0	10	0	11	2	0	0	87	
10:40 PM	0	0	0	0	0	61	2	0	0	0	11	0	7	2	0	0	83	
10:45 PM	0	0	0	0	0	48	1	0	0	0	11	0	8	5	0	0	73	
10:50 PM	0	0	0	0	0	42	0	0	0	0	6	0	10	1	0	0	59	
10:55 PM	0	0	0	0	0	38	1	0	0	0	10	0	9	2	0	0	60	908
11:00 PM	0	0	0	0	0	57	1	0	0	0	8	0	7	6	0	0	79	930
11:05 PM	0	0	0	0	0	50	2	0	0	0	8	0	7	2	0	0	69	911
11:10 PM	0	0	0	0	0	59	1	0	0	0	8	0	5	5	0	0	78	908
11:15 PM	0	0	0	0	0	46	1	0	0	0	6	0	2	5	0	0	60	894
11:20 PM	0	0	0	0	0	63	1	0	0	0	9	0	5	1	0	0	79	884
11:25 PM	0	0	0	0	0	42	0	0	0	0	6	0	10	5	0	0	63	867
11:30 PM	0	0	0	0	0	42	2	0	0	0	6	0	7	3	0	0	60	850
11:35 PM	0	0	0	0	0	41	2	0	0	0	8	0	9	2	0	0	62	825
11:40 PM	0	0	0	0	0	49	0	0	0	0	5	0	6	2	0	0	62	804
11:45 PM	0	0	0	0	0	44	2	0	0	0	8	0	3	3	0	0	60	791
11:50 PM	0	0	0	0	0	50	1	0	0	0	4	0	5	3	0	0	63	795
11:55 PM	0	0	0	0	0	51	1	0	0	0	0	0	3	2	0	0	57	792

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	728	24	0	0	0	112	0	88	36	0	0	988
Heavy Trucks	0	0	0		0	0	0		0	0	4		0	4	0		8
Buses																	
Pedestrians		0				4				12				0			16
Bicycles	0	0	28		0	0	4		0	0	0		0	0	0		32
Scooters																	

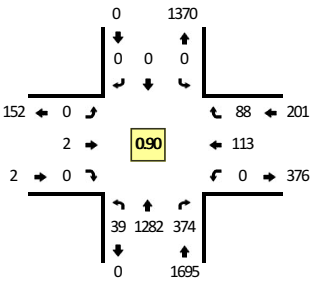
Comments:

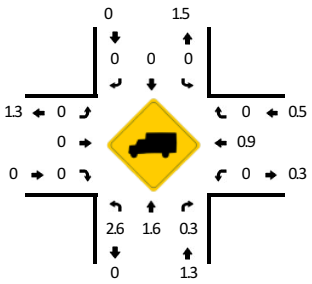
Report generated on 7/26/2023 12:41 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

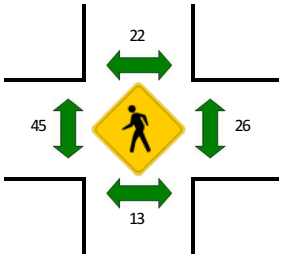
LOCATION: SE Grand Ave -- SE Stark St | **QC JOB #:** 16263745
CITY/STATE: Portland, OR | **DATE:** Thu, Jul 13 2023

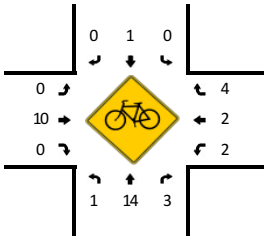
Peak-Hour: 6:00 PM -- 7:00 PM
Peak 15-Min: 6:25 PM -- 6:40 PM

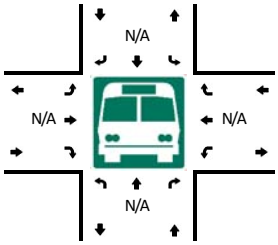


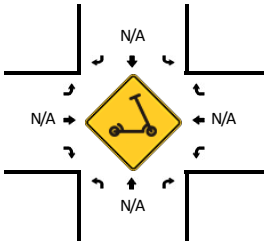


Quality Counts
DATA THAT DRIVES COMMUNITIES









5-Min Count Period Beginning At	SE Grand Ave (Northbound)				SE Grand Ave (Southbound)				SE Stark St (Eastbound)				SE Stark St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	1	102	46	0	0	0	0	0	0	0	0	0	0	10	6	0	165	
6:05 PM	8	109	43	0	0	0	0	0	0	0	0	0	0	9	5	0	174	
6:10 PM	3	123	32	0	0	0	0	0	0	0	0	0	0	15	7	0	180	
6:15 PM	5	110	33	0	0	0	0	0	0	1	0	0	0	7	10	0	166	
6:20 PM	1	107	30	0	0	0	0	0	0	0	0	0	0	7	9	0	154	
6:25 PM	3	114	44	0	0	0	0	0	0	0	0	0	0	9	5	0	175	
6:30 PM	1	130	36	0	0	0	0	0	0	0	0	0	0	8	5	0	180	
6:35 PM	5	115	28	0	0	0	0	0	0	0	0	0	0	16	10	0	174	
6:40 PM	6	101	21	0	0	0	0	0	0	1	0	0	0	4	7	0	140	
6:45 PM	1	101	24	0	0	0	0	0	0	0	0	0	0	11	12	0	149	
6:50 PM	2	83	17	0	0	0	0	0	0	0	0	0	0	8	9	0	119	
6:55 PM	3	87	20	0	0	0	0	0	0	0	0	0	0	9	3	0	122	1898
7:00 PM	1	97	20	0	0	0	0	0	0	0	0	0	0	10	4	0	132	1865
7:05 PM	2	87	22	0	0	0	0	0	0	0	0	0	0	10	2	0	123	1814
7:10 PM	0	74	26	0	0	0	0	0	0	0	0	0	0	5	5	0	110	1744
7:15 PM	1	82	16	0	0	0	0	0	0	0	0	0	0	7	1	0	107	1685
7:20 PM	4	103	25	0	0	0	0	0	0	0	0	0	0	10	5	0	147	1678
7:25 PM	2	88	18	0	0	0	0	0	0	0	0	0	0	2	4	0	114	1617
7:30 PM	2	71	13	0	0	0	0	0	0	0	0	0	0	6	4	0	96	1533
7:35 PM	4	79	16	0	0	0	0	0	0	0	0	0	0	11	2	0	112	1471
7:40 PM	1	82	20	0	0	0	0	0	0	0	0	0	0	9	5	0	117	1448
7:45 PM	2	77	11	0	0	0	0	0	0	0	0	0	0	8	3	0	101	1400
7:50 PM	2	64	14	0	0	0	0	0	0	0	0	0	0	4	4	0	88	1369
7:55 PM	0	71	10	0	0	0	0	0	0	0	0	0	0	6	5	0	92	1339

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	36	1436	432	0	0	0	0	0	0	0	0	0	0	132	80	0	2116
Heavy Trucks	0	20	0		0	0	0		0	0	0		0	4	0		24
Buses																	
Pedestrians		20				40				60				24			144
Bicycles	0	8	4		0	0	0		0	20	0		4	4	4		44
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

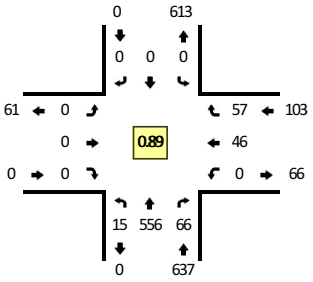
Type of peak hour being reported: Intersection Peak

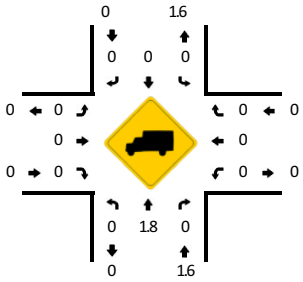
Method for determining peak hour: Total Entering Volume

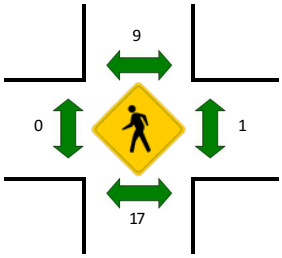
LOCATION: SE Grand Ave -- SE Stark St
CITY/STATE: Portland, OR

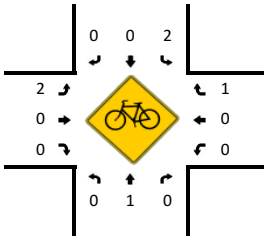
QC JOB #: 16263746
DATE: Thu, Jul 13 2023

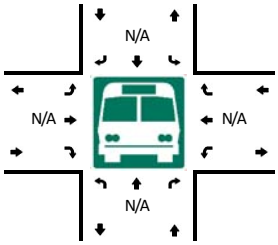
Peak-Hour: 10:00 PM -- 11:00 PM
Peak 15-Min: 10:00 PM -- 10:15 PM

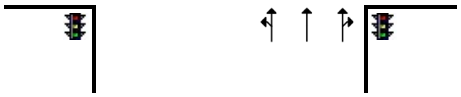


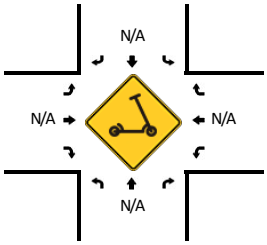












5-Min Count Period Beginning At	SE Grand Ave (Northbound)				SE Grand Ave (Southbound)				SE Stark St (Eastbound)				SE Stark St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	1	67	3	0	0	0	0	0	0	0	0	0	0	5	5	0	81	
10:05 PM	2	52	5	0	0	0	0	0	0	0	0	0	0	4	6	0	69	
10:10 PM	3	47	7	0	0	0	0	0	0	0	0	0	0	1	1	0	59	
10:15 PM	2	55	11	0	0	0	0	0	0	0	0	0	0	4	5	0	77	
10:20 PM	0	30	2	0	0	0	0	0	0	0	0	0	0	1	7	0	40	
10:25 PM	0	52	6	0	0	0	0	0	0	0	0	0	0	6	4	0	68	
10:30 PM	4	49	3	0	0	0	0	0	0	0	0	0	0	2	6	0	64	
10:35 PM	1	48	8	0	0	0	0	0	0	0	0	0	0	12	6	0	75	
10:40 PM	0	39	3	0	0	0	0	0	0	0	0	0	0	5	8	0	55	
10:45 PM	1	46	3	0	0	0	0	0	0	0	0	0	0	0	1	0	51	
10:50 PM	0	40	7	0	0	0	0	0	0	0	0	0	0	3	4	0	54	
10:55 PM	1	31	8	0	0	0	0	0	0	0	0	0	0	3	4	0	47	740
11:00 PM	1	36	2	0	0	0	0	0	0	0	0	0	0	3	1	0	43	702
11:05 PM	0	33	2	0	0	0	0	0	0	0	0	0	0	4	5	0	44	677
11:10 PM	0	33	3	0	0	0	0	0	0	0	0	0	0	3	3	0	42	660
11:15 PM	2	32	4	0	0	0	0	0	0	0	0	0	0	3	6	0	47	630
11:20 PM	0	27	3	0	0	0	0	0	0	0	0	0	0	8	0	0	38	628
11:25 PM	1	34	1	0	0	0	0	0	0	0	0	0	0	1	1	0	38	598
11:30 PM	1	18	3	0	0	0	0	0	0	0	0	0	0	1	1	0	24	558
11:35 PM	1	27	1	0	0	0	0	0	0	0	0	0	0	2	1	0	32	515
11:40 PM	0	22	5	0	0	0	0	0	0	0	0	0	0	1	2	0	30	490
11:45 PM	2	24	3	0	0	0	0	0	0	0	0	0	0	1	1	0	31	470
11:50 PM	0	28	4	0	0	0	0	0	0	0	0	0	0	3	3	0	38	454
11:55 PM	0	31	1	0	0	0	0	0	0	0	0	0	0	4	0	0	36	443

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	24	664	60	0	0	0	0	0	0	0	0	0	0	40	48	0	836
Heavy Trucks	0	12	0		0	0	0		0	0	0		0	0	0		12
Buses																	
Pedestrians		0				16				0				0			16
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

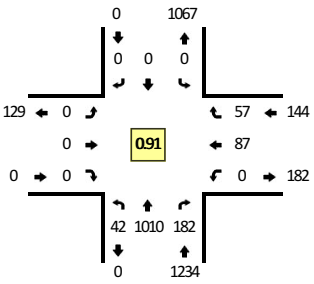
Type of peak hour being reported: Intersection Peak

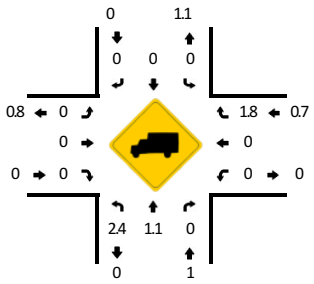
Method for determining peak hour: Total Entering Volume

LOCATION: SE Grand Ave -- SE Stark St
CITY/STATE: Portland, OR

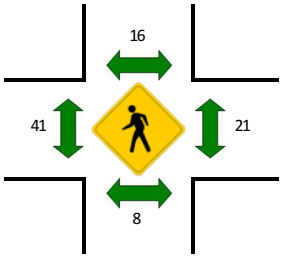
QC JOB #: 16263747
DATE: Sat, Jul 15 2023

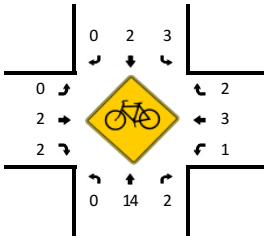
Peak-Hour: 6:05 PM -- 7:05 PM
Peak 15-Min: 6:10 PM -- 6:25 PM

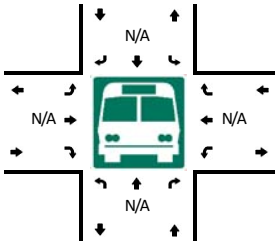


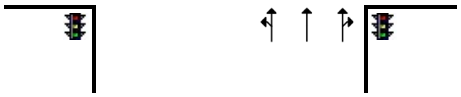


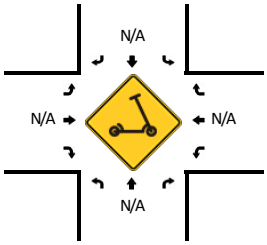
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	SE Grand Ave (Northbound)				SE Grand Ave (Southbound)				SE Stark St (Eastbound)				SE Stark St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	4	71	11	0	0	0	0	0	0	0	0	0	0	5	3	0	94	
6:05 PM	4	89	15	0	0	0	0	0	0	0	0	0	0	6	5	0	119	
6:10 PM	4	96	21	0	0	0	0	0	0	0	0	0	0	3	9	0	133	
6:15 PM	3	81	15	0	0	0	0	0	0	0	0	0	0	15	7	0	121	
6:20 PM	5	95	12	0	0	0	0	0	0	0	0	0	0	6	5	0	123	
6:25 PM	4	95	13	0	0	0	0	0	0	0	0	0	0	8	2	0	122	
6:30 PM	4	80	15	0	0	0	0	0	0	0	0	0	0	3	5	0	107	
6:35 PM	1	56	12	0	0	0	0	0	0	0	0	0	0	5	2	0	76	
6:40 PM	4	80	12	0	0	0	0	0	0	0	0	0	0	9	3	0	108	
6:45 PM	2	99	8	0	0	0	0	0	0	0	0	0	0	6	6	0	121	
6:50 PM	3	72	14	0	0	0	0	0	0	0	0	0	0	6	6	0	101	
6:55 PM	5	74	16	0	0	0	0	0	0	0	0	0	0	6	3	0	104	1329
7:00 PM	3	93	29	0	0	0	0	0	0	0	0	0	0	14	4	0	143	1378
7:05 PM	4	83	17	0	0	0	0	0	0	0	0	0	0	4	2	0	110	1369
7:10 PM	7	82	23	0	0	0	0	0	0	0	0	0	0	9	6	0	127	1363
7:15 PM	2	59	13	0	0	0	0	0	0	0	0	0	0	6	2	0	82	1324
7:20 PM	2	73	15	0	0	0	0	0	0	0	0	0	0	8	2	0	100	1301
7:25 PM	2	68	14	0	0	0	0	0	0	0	0	0	0	6	4	0	94	1273
7:30 PM	4	69	18	0	0	0	0	0	0	0	0	0	0	11	4	0	106	1272
7:35 PM	6	68	9	0	0	0	0	0	0	0	0	0	0	8	6	0	97	1293
7:40 PM	3	70	14	0	0	0	0	0	0	0	0	0	0	3	5	0	95	1280
7:45 PM	5	65	11	0	0	0	0	0	0	0	0	0	0	6	3	0	90	1249
7:50 PM	2	50	10	0	0	0	0	0	0	0	0	0	0	11	4	0	77	1225
7:55 PM	4	79	15	0	0	0	0	0	1	0	0	0	0	6	5	0	110	1231

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	48	1088	192	0	0	0	0	0	0	0	0	0	0	96	84	0	1508
Heavy Trucks	4	12	0		0	0	0		0	0	0		0	0	4		20
Buses																	
Pedestrians		0				12				48				20			80
Bicycles	0	16	0		4	0	0		0	0	0		4	0	0		24
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

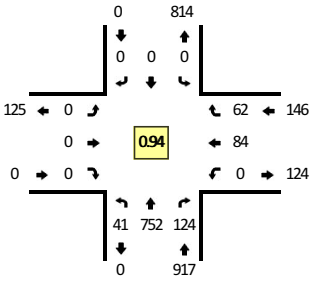
Type of peak hour being reported: Intersection Peak

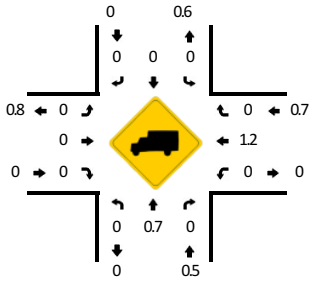
Method for determining peak hour: Total Entering Volume

LOCATION: SE Grand Ave -- SE Stark St
CITY/STATE: Portland, OR

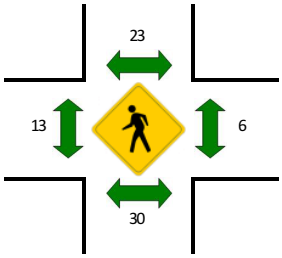
QC JOB #: 16263748
DATE: Sat, Jul 15 2023

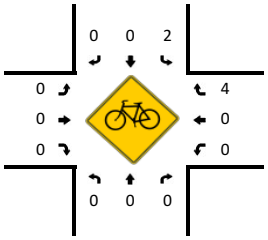
Peak-Hour: 10:10 PM -- 11:10 PM
Peak 15-Min: 10:10 PM -- 10:25 PM

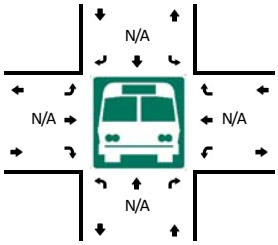


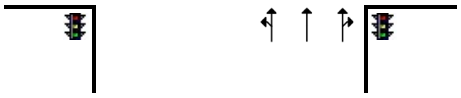


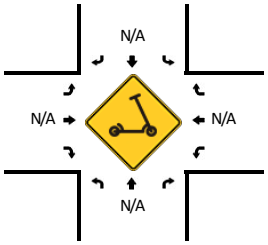
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	SE Grand Ave (Northbound)				SE Grand Ave (Southbound)				SE Stark St (Eastbound)				SE Stark St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	1	69	11	0	0	0	0	0	0	0	0	0	0	3	3	0	87	
10:05 PM	3	46	12	0	0	0	0	0	0	0	0	0	0	5	4	0	70	
10:10 PM	1	72	14	0	0	0	0	0	0	0	0	0	0	5	2	0	94	
10:15 PM	6	75	11	0	0	0	0	0	0	0	0	0	0	5	6	0	103	
10:20 PM	1	59	12	0	0	0	0	0	0	0	0	0	0	9	4	0	85	
10:25 PM	3	61	11	0	0	0	0	0	0	0	0	0	0	6	4	0	85	
10:30 PM	6	69	9	0	0	0	0	0	0	0	0	0	0	3	5	0	92	
10:35 PM	3	68	16	0	0	0	0	0	0	0	0	0	0	9	1	0	97	
10:40 PM	3	58	9	0	0	0	0	0	0	0	0	0	0	6	5	0	81	
10:45 PM	5	54	9	0	0	0	0	0	0	0	0	0	0	8	4	0	80	
10:50 PM	3	66	10	0	0	0	0	0	0	0	0	0	0	10	8	0	97	
10:55 PM	4	51	8	0	0	0	0	0	0	0	0	0	0	8	11	0	82	1053
11:00 PM	2	56	6	0	0	0	0	0	0	0	0	0	0	13	6	0	83	1049
11:05 PM	4	63	9	0	0	0	0	0	0	0	0	0	0	2	6	0	84	1063
11:10 PM	2	56	10	0	0	0	0	0	0	0	0	0	0	8	8	0	84	1053
11:15 PM	2	41	7	0	0	0	0	0	0	0	0	0	0	5	4	0	59	1009
11:20 PM	1	54	5	0	0	0	0	0	0	0	0	0	0	6	5	0	71	995
11:25 PM	4	58	11	0	0	0	0	0	0	0	0	0	0	11	5	0	89	999
11:30 PM	4	52	5	0	0	0	0	0	0	0	0	0	0	6	3	0	70	977
11:35 PM	2	50	7	0	0	0	0	0	0	0	0	0	0	9	2	0	70	950
11:40 PM	3	48	7	0	0	0	0	0	0	0	0	0	0	8	2	0	68	937
11:45 PM	2	34	6	0	0	0	0	0	0	0	0	0	0	1	5	0	48	905
11:50 PM	2	36	7	0	0	0	0	0	0	0	0	0	0	7	6	0	58	866
11:55 PM	2	54	3	0	0	0	0	0	0	0	0	0	0	1	4	0	64	848

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	32	824	148	0	0	0	0	0	0	0	0	0	0	76	48	0	1128
Heavy Trucks	0	8	0		0	0	0		0	0	0		0	0	0		8
Buses																	
Pedestrians		24				40				4				0			68
Bicycles	0	0	0		0	0	0		0	0	0		0	0	4		4
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

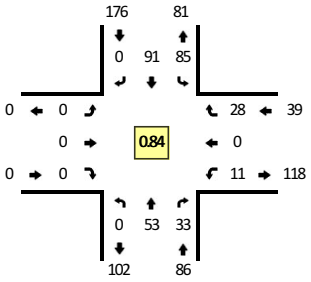
Type of peak hour being reported: Intersection Peak

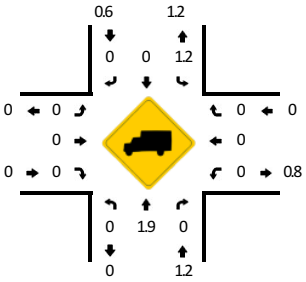
Method for determining peak hour: Total Entering Volume

LOCATION: SE Water St -- SE Clay St
CITY/STATE: Portland, OR

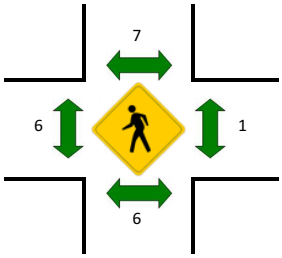
QC JOB #: 16263749
DATE: Thu, Jul 13 2023

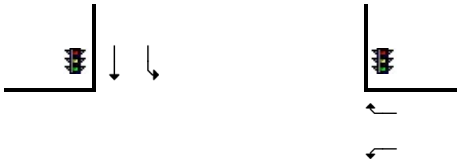
Peak-Hour: 6:00 PM -- 7:00 PM
Peak 15-Min: 6:05 PM -- 6:20 PM

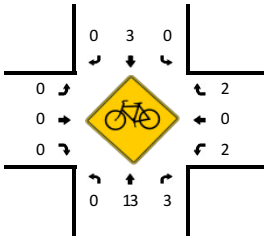


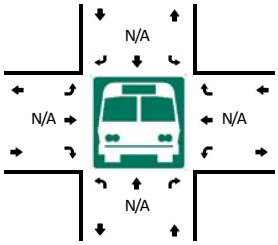


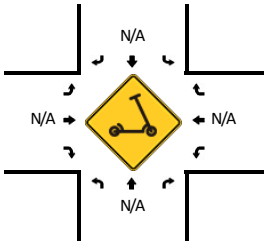
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Clay St (Eastbound)				SE Clay St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	6	3	0	7	8	0	0	0	0	0	0	1	0	3	0	28	
6:05 PM	0	3	4	0	7	9	0	0	0	0	0	0	2	0	4	0	29	
6:10 PM	0	5	1	0	6	14	0	0	0	0	0	0	0	0	0	0	26	
6:15 PM	0	7	1	0	9	13	0	0	0	0	0	0	1	0	4	0	35	
6:20 PM	0	6	2	0	6	8	0	0	0	0	0	0	2	0	2	0	26	
6:25 PM	0	5	1	0	7	6	0	0	0	0	0	0	0	0	2	0	21	
6:30 PM	0	1	1	0	8	5	0	0	0	0	0	0	1	0	3	0	19	
6:35 PM	0	7	2	0	10	9	0	0	0	0	0	0	0	0	0	0	28	
6:40 PM	0	2	5	0	6	10	0	0	0	0	0	0	0	0	3	0	26	
6:45 PM	0	2	4	0	10	5	0	0	0	0	0	0	1	0	2	0	24	
6:50 PM	0	3	5	0	6	2	0	0	0	0	0	0	1	0	2	0	19	
6:55 PM	0	6	4	0	3	2	0	0	0	0	0	0	2	0	3	0	20	301
7:00 PM	0	2	1	0	6	4	0	0	0	0	0	0	0	0	0	0	13	286
7:05 PM	0	5	2	0	4	4	0	0	0	0	0	0	1	0	0	0	16	273
7:10 PM	0	2	3	0	3	0	0	0	0	0	0	0	2	0	1	0	11	258
7:15 PM	0	1	3	0	3	2	0	0	0	0	0	0	1	0	0	0	10	233
7:20 PM	0	3	1	0	2	2	0	0	0	0	0	0	0	0	1	0	9	216
7:25 PM	0	0	2	0	5	4	0	0	0	0	0	0	2	0	1	0	14	209
7:30 PM	0	1	0	0	7	4	0	0	0	0	0	0	1	0	1	0	14	204
7:35 PM	0	2	1	0	3	3	0	0	0	0	0	0	0	0	0	0	9	185
7:40 PM	0	1	2	0	2	4	0	0	0	0	0	0	0	0	1	0	10	169
7:45 PM	0	2	1	0	6	1	0	0	0	0	0	0	0	0	1	0	11	156
7:50 PM	0	0	1	0	0	2	0	0	0	0	0	0	0	0	1	0	4	141
7:55 PM	0	0	0	0	5	2	0	0	0	0	0	0	0	0	0	0	7	128

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	60	24	0	88	144	0	0	0	0	0	0	12	0	32	0	360
Heavy Trucks	0	0	0		4	0	0		0	0	0		0	0	0		4
Buses																	
Pedestrians		8				4				4				4			20
Bicycles	0	16	4		0	0	0		0	0	0		0	0	4		24
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

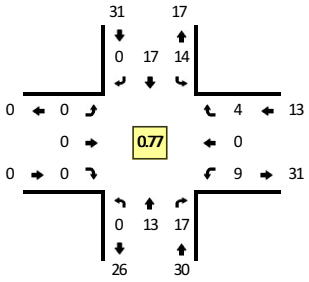
Type of peak hour being reported: Intersection Peak

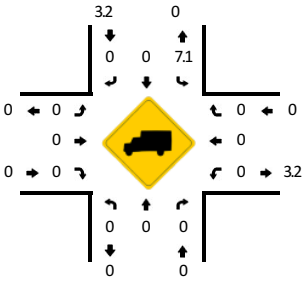
Method for determining peak hour: Total Entering Volume

LOCATION: SE Water St -- SE Clay St
CITY/STATE: Portland, OR

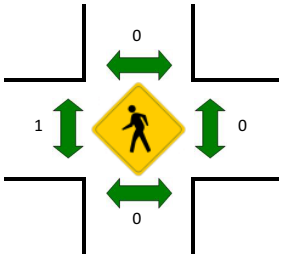
QC JOB #: 16263750
DATE: Thu, Jul 13 2023

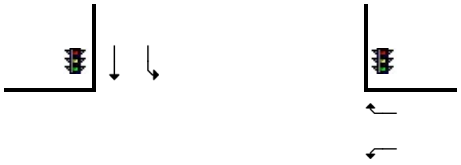
Peak-Hour: 10:00 PM -- 11:00 PM
Peak 15-Min: 10:25 PM -- 10:40 PM

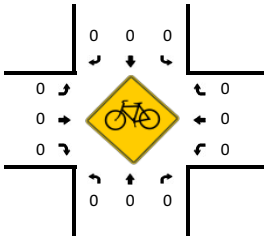


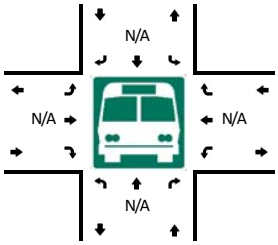


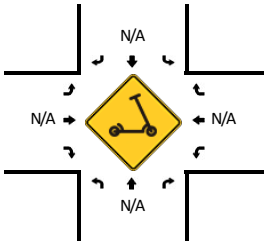
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Clay St (Eastbound)				SE Clay St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	3	3	0	1	2	0	0	0	0	0	0	0	0	1	0	10	
10:05 PM	0	1	0	0	2	3	0	0	0	0	0	0	1	0	0	0	7	
10:10 PM	0	0	0	0	3	2	0	0	0	0	0	0	0	0	1	0	6	
10:15 PM	0	2	2	0	2	0	0	0	0	0	0	0	2	0	0	0	8	
10:20 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	
10:25 PM	0	2	3	0	1	2	0	0	0	0	0	0	3	0	0	0	11	
10:30 PM	0	1	2	0	0	1	0	0	0	0	0	0	1	0	1	0	6	
10:35 PM	0	0	3	0	1	3	0	0	0	0	0	0	0	0	0	0	7	
10:40 PM	0	1	2	0	0	1	0	0	0	0	0	0	1	0	1	0	6	
10:45 PM	0	3	2	0	0	2	0	0	0	0	0	0	1	0	0	0	8	
10:50 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	
10:55 PM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	74
11:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	65
11:05 PM	0	2	0	0	1	0	0	0	0	0	0	0	0	0	2	0	5	63
11:10 PM	0	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0	4	61
11:15 PM	0	3	2	0	1	0	0	0	0	0	0	0	0	0	1	0	7	60
11:20 PM	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	3	61
11:25 PM	0	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0	4	54
11:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	49
11:35 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	43
11:40 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	39
11:45 PM	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	3	34
11:50 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	34
11:55 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	34

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	12	32	0	8	24	0	0	0	0	0	0	16	0	4	0	96
Heavy Trucks	0	0	0		4	0	0		0	0	0		0	0	0		4
Buses																	
Pedestrians		0				0				4				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

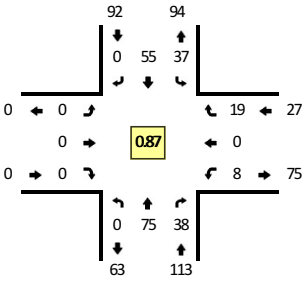
Type of peak hour being reported: Intersection Peak

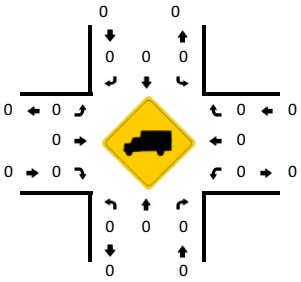
Method for determining peak hour: Total Entering Volume

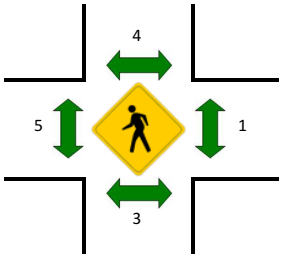
LOCATION: SE Water St -- SE Clay St
CITY/STATE: Portland, OR

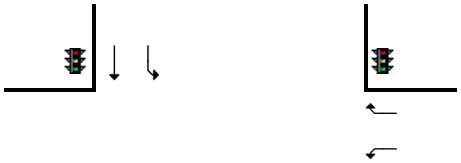
QC JOB #: 16263751
DATE: Sat, Jul 15 2023

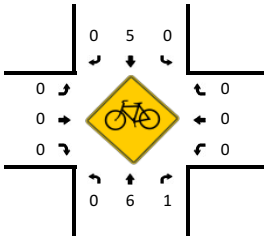
Peak-Hour: 6:05 PM -- 7:05 PM
Peak 15-Min: 6:20 PM -- 6:35 PM

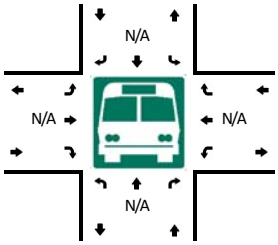


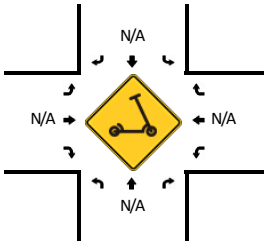












5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Clay St (Eastbound)				SE Clay St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	6	2	0	2	3	0	0	0	0	0	0	1	0	3	0	17	
6:05 PM	0	4	2	0	1	8	0	0	0	0	0	0	1	0	2	0	18	
6:10 PM	0	3	2	0	3	7	0	0	0	0	0	0	0	0	1	0	16	
6:15 PM	0	4	3	0	1	6	0	0	0	0	0	0	0	0	1	0	15	
6:20 PM	0	9	6	0	4	3	0	0	0	0	0	0	1	0	5	0	28	
6:25 PM	0	8	4	0	2	4	0	0	0	0	0	0	1	0	1	0	20	
6:30 PM	0	7	6	0	4	1	0	0	0	0	0	0	1	0	0	0	19	
6:35 PM	0	9	1	0	9	4	0	0	0	0	0	0	0	0	3	0	26	
6:40 PM	0	6	3	0	2	2	0	0	0	0	0	0	0	0	0	0	13	
6:45 PM	0	9	0	0	0	7	0	0	0	0	0	0	0	0	0	0	16	
6:50 PM	0	6	1	0	4	6	0	0	0	0	0	0	1	0	2	0	20	
6:55 PM	0	7	2	0	4	3	0	0	0	0	0	0	2	0	2	0	20	228
7:00 PM	0	3	8	0	3	4	0	0	0	0	0	0	1	0	2	0	21	232
7:05 PM	0	5	4	0	2	2	0	0	0	0	0	0	1	0	1	0	15	229
7:10 PM	0	4	2	0	4	1	0	0	0	0	0	0	0	0	1	0	12	225
7:15 PM	0	1	2	0	7	5	0	0	0	0	0	0	2	0	0	0	17	227
7:20 PM	0	2	1	0	5	2	0	0	0	0	0	0	0	0	2	0	12	211
7:25 PM	0	1	1	0	4	4	0	0	0	0	0	0	0	0	0	0	10	201
7:30 PM	0	2	4	0	4	3	0	0	0	0	0	0	0	0	2	0	15	197
7:35 PM	0	0	2	0	5	2	0	0	0	0	0	0	1	0	0	0	10	181
7:40 PM	0	0	1	0	1	5	0	0	0	0	0	0	0	0	0	0	7	175
7:45 PM	0	0	3	0	3	2	0	0	0	0	0	0	1	0	2	0	11	170
7:50 PM	0	2	2	0	2	6	0	0	0	0	0	0	1	0	1	0	14	164
7:55 PM	0	7	0	0	2	23	0	0	0	0	0	0	3	0	0	0	35	179

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	96	64	0	40	32	0	0	0	0	0	0	12	0	24	0	268
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				4				16				0			20
Bicycles	0	0	0		0	4	0		0	0	0		0	0	0		4
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

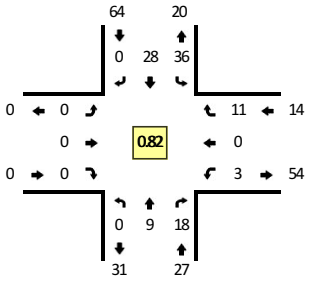
Type of peak hour being reported: Intersection Peak

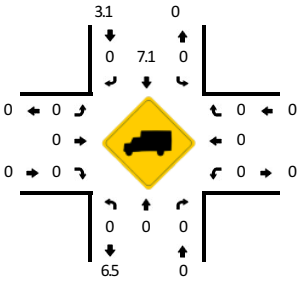
Method for determining peak hour: Total Entering Volume

LOCATION: SE Water St -- SE Clay St
CITY/STATE: Portland, OR

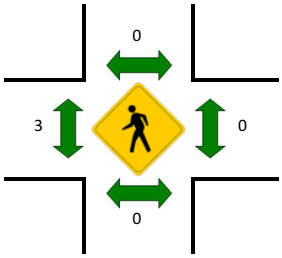
QC JOB #: 16263752
DATE: Sat, Jul 15 2023

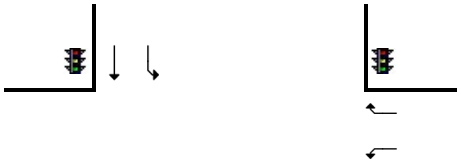
Peak-Hour: 10:00 PM -- 11:00 PM
Peak 15-Min: 10:45 PM -- 11:00 PM

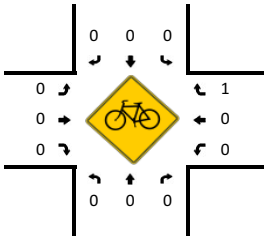


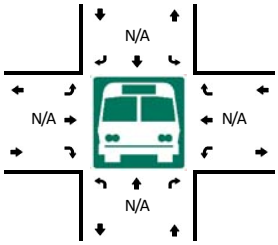


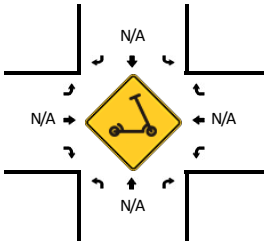
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Clay St (Eastbound)				SE Clay St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	0	5	0	1	1	0	0	0	0	0	0	0	0	0	0	7	
10:05 PM	0	0	0	0	3	3	0	0	0	0	0	0	0	0	2	0	8	
10:10 PM	0	2	1	0	5	4	0	0	0	0	0	0	0	0	0	0	12	
10:15 PM	0	1	1	0	1	2	0	0	0	0	0	0	0	0	0	0	5	
10:20 PM	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	4	
10:25 PM	0	2	0	0	7	2	0	0	0	0	0	0	2	0	1	0	14	
10:30 PM	0	0	2	0	3	2	0	0	0	0	0	0	0	0	0	0	7	
10:35 PM	0	0	0	0	0	5	0	0	0	0	0	0	0	0	2	0	7	
10:40 PM	0	1	3	0	2	2	0	0	0	0	0	0	1	0	0	0	9	
10:45 PM	0	2	0	0	5	2	0	0	0	0	0	0	0	0	1	0	10	
10:50 PM	0	1	2	0	1	2	0	0	0	0	0	0	0	0	3	0	9	
10:55 PM	0	0	3	0	5	3	0	0	0	0	0	0	0	0	2	0	13	105
11:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	3	101
11:05 PM	0	2	0	0	4	2	0	0	0	0	0	0	0	0	1	0	9	102
11:10 PM	0	1	0	0	1	4	0	0	0	0	0	0	0	0	0	0	6	96
11:15 PM	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	4	95
11:20 PM	0	0	0	0	2	1	0	0	0	0	0	0	0	0	1	0	4	95
11:25 PM	0	0	1	0	2	1	0	0	0	0	0	0	0	0	1	0	5	86
11:30 PM	0	0	0	0	4	2	0	0	0	0	0	0	0	0	1	0	7	86
11:35 PM	0	0	4	0	4	1	0	0	0	0	0	0	0	0	2	0	11	90
11:40 PM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	3	0	7	88
11:45 PM	0	4	0	0	4	0	0	0	0	0	0	0	1	0	0	0	9	87
11:50 PM	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	3	81
11:55 PM	0	0	1	0	2	3	0	0	0	0	0	0	1	0	0	0	7	75

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	12	20	0	44	28	0	0	0	0	0	0	0	0	24	0	128
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

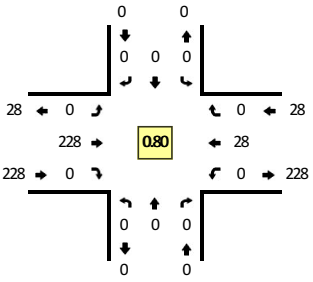
Type of peak hour being reported: Intersection Peak

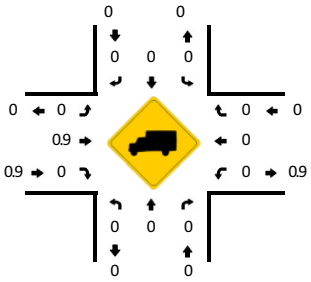
Method for determining peak hour: Total Entering Volume

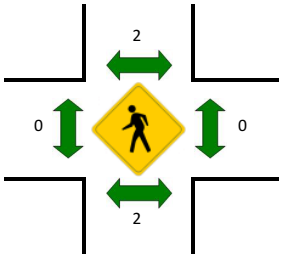
LOCATION: RR Crossing -- SE Stark St
CITY/STATE: Portland, OR

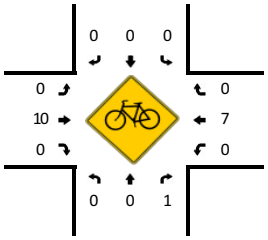
QC JOB #: 16263753
DATE: Thu, Jul 13 2023

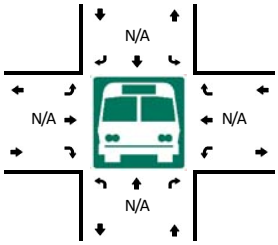
Peak-Hour: 6:05 PM -- 7:05 PM
Peak 15-Min: 6:05 PM -- 6:20 PM

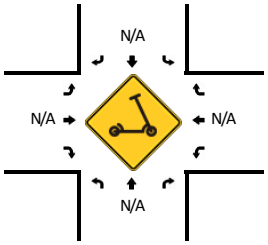












5-Min Count Period Beginning At	RR Crossing (Northbound)				RR Crossing (Southbound)				SE Stark St (Eastbound)				SE Stark St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	0	0	0	0	0	0	0	0	14	0	0	0	2	0	0	16	
6:05 PM	0	0	0	0	0	0	0	0	0	21	0	0	0	3	0	0	24	
6:10 PM	0	0	0	0	0	0	0	0	0	31	0	0	0	3	0	0	34	
6:15 PM	0	0	0	0	0	0	0	0	0	18	0	0	0	4	0	0	22	
6:20 PM	0	0	0	0	0	0	0	0	0	16	0	0	0	1	0	0	17	
6:25 PM	0	0	0	0	0	0	0	0	0	11	0	0	0	2	0	0	13	
6:30 PM	0	0	0	0	0	0	0	0	0	23	0	0	0	1	0	0	24	
6:35 PM	0	0	0	0	0	0	0	0	0	14	0	0	0	3	0	0	17	
6:40 PM	0	0	0	0	0	0	0	0	0	25	0	0	0	3	0	0	28	
6:45 PM	0	0	0	0	0	0	0	0	0	20	0	0	0	1	0	0	21	
6:50 PM	0	0	0	0	0	0	0	0	0	20	0	0	0	2	0	0	22	
6:55 PM	0	0	0	0	0	0	0	0	0	12	0	0	0	2	0	0	14	252
7:00 PM	0	0	0	0	0	0	0	0	0	17	0	0	0	3	0	0	20	256
7:05 PM	0	0	0	0	0	0	0	0	0	16	0	0	0	2	0	0	18	250
7:10 PM	0	0	0	0	0	0	0	0	0	19	0	0	0	3	0	0	22	238
7:15 PM	0	0	0	0	0	0	0	0	0	19	0	0	0	0	0	0	19	235
7:20 PM	0	0	0	0	0	0	0	0	0	14	0	0	0	2	0	0	16	234
7:25 PM	0	0	0	0	0	0	0	0	0	16	0	0	0	2	0	0	18	239
7:30 PM	0	0	0	0	0	0	0	0	0	17	0	0	0	4	0	0	21	236
7:35 PM	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	20	239
7:40 PM	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	10	221
7:45 PM	0	0	0	0	0	0	0	0	0	19	0	0	0	3	0	0	22	222
7:50 PM	0	0	0	0	0	0	0	0	0	13	0	0	0	1	0	0	14	214
7:55 PM	0	0	0	0	0	0	0	0	0	6	0	0	0	2	0	0	8	208

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	0	0	0	0	280	0	0	0	40	0	0	320
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	8	0		8
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

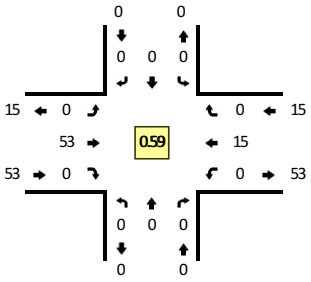
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

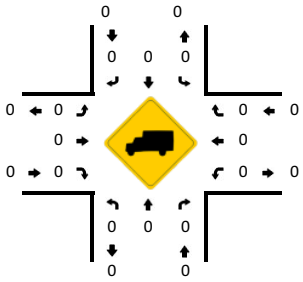
LOCATION: RR Crossing -- SE Stark St
CITY/STATE: Portland, OR

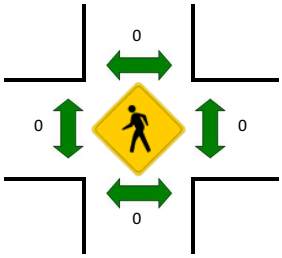
QC JOB #: 16263754
DATE: Thu, Jul 13 2023

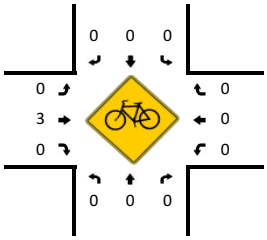
Peak-Hour: 10:00 PM -- 11:00 PM
Peak 15-Min: 10:00 PM -- 10:15 PM

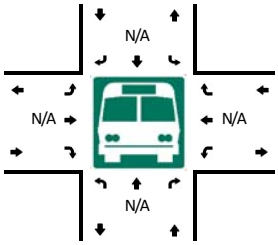


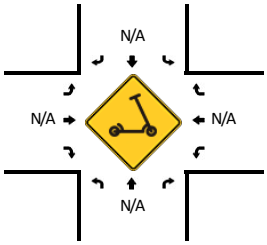
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	RR Crossing (Northbound)				RR Crossing (Southbound)				SE Stark St (Eastbound)				SE Stark St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	0	0	0	0	0	0	0	0	9	0	0	0	4	0	0	13	
10:05 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2	
10:10 PM	0	0	0	0	0	0	0	0	0	11	0	0	0	3	0	0	14	
10:15 PM	0	0	0	0	0	0	0	0	0	8	0	0	0	1	0	0	9	
10:20 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3	
10:25 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	4	
10:30 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	
10:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:45 PM	0	0	0	0	0	0	0	0	0	6	0	0	0	1	0	0	7	
10:50 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	
10:55 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	3	0	0	8	68
11:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	57
11:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55
11:10 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	4	45
11:15 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	0	5	41
11:20 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	0	5	43
11:25 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	0	5	44
11:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3	43
11:35 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	45
11:40 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	0	5	50
11:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	44
11:50 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	42
11:55 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	4	38

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	0	0	0	0	84	0	0	0	32	0	0	116
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

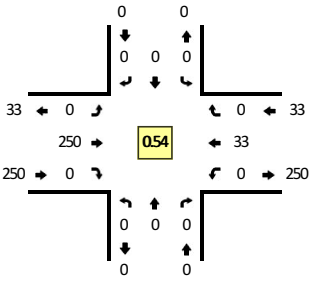
Type of peak hour being reported: Intersection Peak

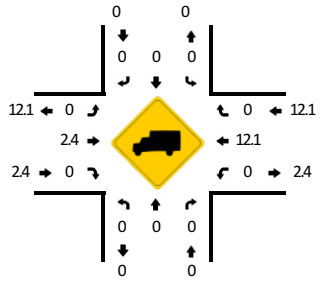
Method for determining peak hour: Total Entering Volume

LOCATION: RR Crossing -- SE Stark St
CITY/STATE: Portland, OR

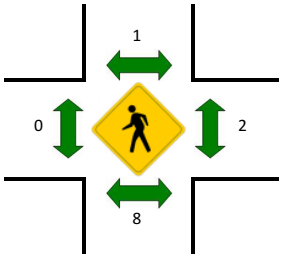
QC JOB #: 16263755
DATE: Sat, Jul 15 2023

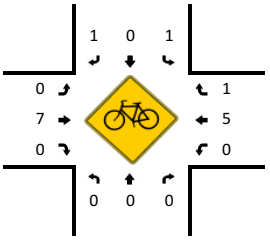
Peak-Hour: 6:00 PM -- 7:00 PM
Peak 15-Min: 6:00 PM -- 6:15 PM

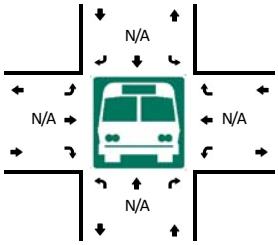


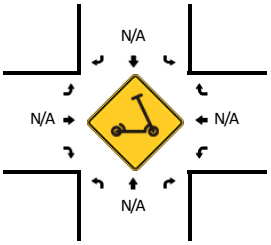


Quality Counts
DATA THAT DRIVES COMMUNITIES









5-Min Count Period Beginning At	RR Crossing (Northbound)				RR Crossing (Southbound)				SE Stark St (Eastbound)				SE Stark St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	0	0	0	0	0	0	0	0	64	0	0	0	7	0	0	71	
6:05 PM	0	0	0	0	0	0	0	0	0	39	0	0	0	1	0	0	40	
6:10 PM	0	0	0	0	0	0	0	0	0	20	0	0	0	1	0	0	21	
6:15 PM	0	0	0	0	0	0	0	0	0	14	0	0	0	4	0	0	18	
6:20 PM	0	0	0	0	0	0	0	0	0	13	0	0	0	4	0	0	17	
6:25 PM	0	0	0	0	0	0	0	0	0	23	0	0	0	3	0	0	26	
6:30 PM	0	0	0	0	0	0	0	0	0	10	0	0	0	4	0	0	14	
6:35 PM	0	0	0	0	0	0	0	0	0	18	0	0	0	0	0	0	18	
6:40 PM	0	0	0	0	0	0	0	0	0	7	0	0	0	4	0	0	11	
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:55 PM	0	0	0	0	0	0	0	0	0	42	0	0	0	5	0	0	47	283
7:00 PM	0	0	0	0	0	0	0	0	0	19	0	0	0	3	0	0	22	234
7:05 PM	0	0	0	0	0	0	0	0	0	16	0	0	0	1	0	0	17	211
7:10 PM	0	0	0	0	0	0	0	0	0	18	0	0	0	2	0	0	20	210
7:15 PM	0	0	0	0	0	0	0	0	0	14	0	0	0	1	0	0	15	207
7:20 PM	0	0	0	0	0	0	0	0	0	17	0	0	0	5	0	0	22	212
7:25 PM	0	0	0	0	0	0	0	0	0	15	0	0	0	2	0	0	17	203
7:30 PM	0	0	0	0	0	0	0	0	0	10	0	0	0	2	0	0	12	201
7:35 PM	0	0	0	0	0	0	0	0	0	11	0	0	0	1	0	0	12	195
7:40 PM	0	0	0	0	0	0	0	0	0	11	0	0	0	3	0	0	14	198
7:45 PM	0	0	0	0	0	0	0	0	0	15	0	0	0	1	0	0	16	214
7:50 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	216
7:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	169

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	0	0	0	0	492	0	0	0	36	0	0	528
Heavy Trucks	0	0	0		0	0	0		0	4	0		0	0	0		4
Buses																	
Pedestrians		20				4				0				0			24
Bicycles	0	0	0		4	0	0		0	20	0		0	4	0		28
Scooters																	

Comments:

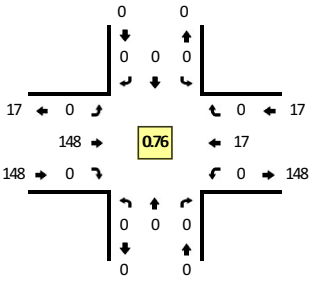
Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

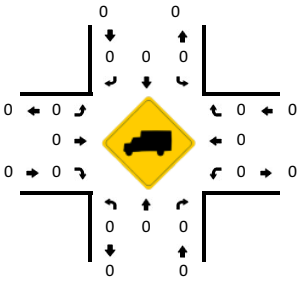
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

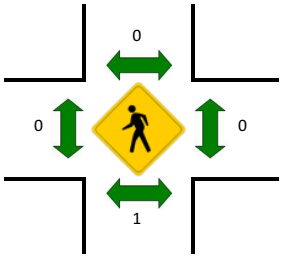
LOCATION: RR Crossing -- SE Stark St | **QC JOB #:** 16263756
CITY/STATE: Portland, OR | **DATE:** Sat, Jul 15 2023

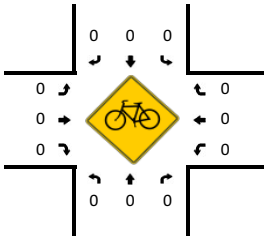
Peak-Hour: 10:00 PM -- 11:00 PM
Peak 15-Min: 10:35 PM -- 10:50 PM

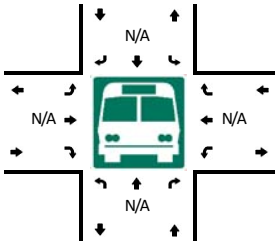


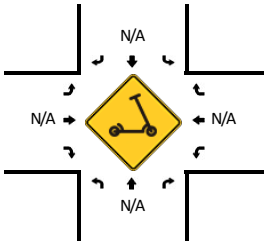
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	RR Crossing (Northbound)				RR Crossing (Southbound)				SE Stark St (Eastbound)				SE Stark St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	13	
10:05 PM	0	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	16	
10:10 PM	0	0	0	0	0	0	0	0	0	10	0	0	0	3	0	0	13	
10:15 PM	0	0	0	0	0	0	0	0	0	12	0	0	0	1	0	0	13	
10:20 PM	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9	
10:25 PM	0	0	0	0	0	0	0	0	0	18	0	0	0	1	0	0	19	
10:30 PM	0	0	0	0	0	0	0	0	0	7	0	0	0	1	0	0	8	
10:35 PM	0	0	0	0	0	0	0	0	0	14	0	0	0	4	0	0	18	
10:40 PM	0	0	0	0	0	0	0	0	0	14	0	0	0	4	0	0	18	
10:45 PM	0	0	0	0	0	0	0	0	0	16	0	0	0	2	0	0	18	
10:50 PM	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9	
10:55 PM	0	0	0	0	0	0	0	0	0	10	0	0	0	1	0	0	11	165
11:00 PM	0	0	0	0	0	0	0	0	0	11	0	0	0	1	0	0	12	164
11:05 PM	0	0	0	0	0	0	0	0	0	10	0	0	0	2	0	0	12	160
11:10 PM	0	0	0	0	0	0	0	0	0	9	0	0	0	5	0	0	14	161
11:15 PM	0	0	0	0	0	0	0	0	0	10	0	0	0	1	0	0	11	159
11:20 PM	0	0	0	0	0	0	0	0	0	6	0	0	0	2	0	0	8	158
11:25 PM	0	0	0	0	0	0	0	0	0	8	0	0	0	2	0	0	10	149
11:30 PM	0	0	0	0	0	0	0	0	0	6	0	0	0	3	0	0	9	150
11:35 PM	0	0	0	0	0	0	0	0	0	7	0	0	0	2	0	0	9	141
11:40 PM	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6	129
11:45 PM	0	0	0	0	0	0	0	0	0	9	0	0	0	1	0	0	10	121
11:50 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	0	4	116
11:55 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	107

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	0	0	0	0	176	0	0	0	40	0	0	216
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

SECTION 4: TRAIN SURVEY DATA

Crossing	Start	End	Gate Down Time	Type	Direction		
1	12:45:20 AM	12:50:38 AM	0:05:18	freight	south		12-1 a.m.
2	1:03:40 AM	1:04:43 AM	0:01:03	freight	south		1-2 a.m.
3	2:24:00 AM	2:28:50 AM	0:04:50	freight	south		2-3 a.m.
4	3:09:50 AM	3:19:02 AM	0:09:12	freight	north		3-4 a.m.
5	3:58:20 AM	4:06:40 AM	0:08:20	freight	south		3-4 a.m.
6	6:05:45 AM	6:19:01 AM	0:13:16	freight	south		6-7 a.m.
7	7:56:43 AM	7:57:28 AM	0:00:45	amtrak	north		
8	9:37:40 AM	9:51:02 AM	0:13:22	freight	south		9-10 a.m.
9	11:19:35 AM	11:20:15 AM	0:00:40	amtrak	south		
10	11:59:00 AM	12:05:08 PM	0:06:08	freight	north		12-1 p.m.
11	1:29:12 PM	1:33:17 PM	0:04:05	freight	north ; switch to south		1-2 p.m.
12	1:36:30 PM	1:37:12 PM	0:00:42	none			
13	1:45:31 PM	3:02:28 PM	1:16:57	freight	north ; switch to south; switch to north	SB Water queue to Yamhill; nb water queue near Yamhill	1-2 p.m.
14	3:15:58 PM	3:17:26 PM	0:01:28	freight	north		3-4 p.m.
15	3:22:50 PM	3:23:40 PM	0:00:50	amtrak	south		
16	3:48:23 PM	3:49:10 PM	0:00:47	amtrak	north		
17	5:21:33 PM	5:25:33 PM	0:04:00	freight	north		5-6 p.m.
18	6:24:59 PM	6:25:47 PM	0:00:48	amtrak	south		
19	6:34:26 PM	6:35:23 PM	0:00:57	freight	south		6-7 p.m.
20	7:09:17 PM	7:09:59 PM	0:00:42	amtrak	north		
21	8:53:36 PM	9:02:35 PM	0:08:59	freight	north		8-9 p.m.
22	9:18:20 PM	9:19:35 PM	0:01:15	freight	north		9-10 p.m.
23	10:09:58 PM	10:12:47 PM	0:02:49	freight	south		10-11 p.m.
24	10:39:50 PM	10:47:59 PM	0:08:09	freight	south		10-11 p.m.

freight	17	2:50:08	0:10:00
Amtrak	6	0:04:32	0:00:45
	23	2:54:40	0:07:36

	freight	Amtrak	
12-4 A.M.	5		5
4-8 A.M.	1		1
8 A.M.-12 P.M.	2	2	4
12-4 P.M.	3	2	5
4-8 P.M.	2	2	4
8 P.M.-12 A.M.	4		4
	17	6	23

	Freight	Amtrak
12-1 a.m.	1	
1-2 a.m.	1	
2-3 a.m.	1	
3-4 a.m.	2	
4-5 a.m.	0	
5-6 a.m.	0	
6-7 a.m.	1	
7-8 a.m.	0	
8-9 a.m.	0	1
9-10 a.m.	1	
10-11 a.m.	0	
11-12 p.m.	0	1
12-1 p.m.	1	
1-2 p.m.	2	
2-3 p.m.	0	1
3-4 p.m.	1	1
4-5 p.m.	0	
5-6 p.m.	1	
6-7 P.M.	1	1
7-8 P.M.	0	1
8-9 P.M.	1	
9-10 P.M.	1	
10-11 P.M.	2	
11 P.M.-12 A.M.	0	
	17	6

SECTION 5: RAIL CROSSING INVENTORY

U. S. DOT CROSSING INVENTORY FORM

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk * denotes an optional field.

A. Revision Date (MM/DD/YYYY)	B. Reporting Agency	C. Reason for Update (Select only one)	D. DOT Crossing Inventory Number
03 / 19 / 2021	☒ Railroad ☐ Transit ☐ State ☐ Other	☒ Change in Data ☐ New Crossing ☐ Closed ☐ No Train Traffic ☐ Quiet Zone Update ☐ Re-Open ☐ Date Change Only ☐ Change in Primary Operating RR ☐ Admin. Correction	754559V

Part I: Location and Classification Information

1. Primary Operating Railroad	2. State	3. County
Union Pacific Railroad Company [UP]	OREGON	MULTNOMAH

4. City / Municipality	5. Street/Road Name & Block Number	6. Highway Type & No.
☒ In ☐ Near PORTLAND	Southeast Clay Street (Street/Road Name) | * (Block Number)	LS

7. Do Other Railroads Operate a Separate Track at Crossing?	8. Do Other Railroads Operate Over Your Track at Crossing?
☐ Yes ☒ No If Yes, Specify RR	☒ Yes ☐ No If Yes, Specify RR ATK, BNSF, PNWR

9. Railroad Division or Region	10. Railroad Subdivision or District	11. Branch or Line Name	12. RR Milepost
☐ None Pacific Northwest	☐ None Brooklyn Sub	☒ None	(prefix) | 0769.240 (nnnn.nnn) | (suffix)

13. Line Segment *	14. Nearest RR Timetable Station *	15. Parent RR (if applicable)	16. Crossing Owner (if applicable)
		☒ N/A	☐ N/A UP

17. Crossing Type	18. Crossing Purpose	19. Crossing Position	20. Public Access (if Private Crossing)	21. Type of Train	22. Average Passenger Train Count Per Day
☒ Public ☐ Private	☒ Highway ☐ Pathway, Ped. ☐ Station, Ped.	☒ At Grade ☐ RR Under ☐ RR Over	☐ Yes ☐ No	☒ Freight ☒ Intercity Passenger ☐ Commuter ☐ Transit ☐ Shared Use Transit ☐ Tourist/Other	☐ Less Than One Per Day ☒ Number Per Day 6

23. Type of Land Use
☐ Open Space ☐ Farm ☐ Residential ☒ Commercial ☐ Industrial ☐ Institutional ☐ Recreational ☐ RR Yard

24. Is there an Adjacent Crossing with a Separate Number?	25. Quiet Zone (FRA provided)
☐ Yes ☒ No If Yes, Provide Crossing Number	☒ No ☐ 24 Hr ☐ Partial ☐ Chicago Excused Date Established

26. HSR Corridor ID	27. Latitude in decimal degrees	28. Longitude in decimal degrees	29. Lat/Long Source
☒ N/A	(WGS84 std: nn.nnnnnnn) 45.5115350	(WGS84 std: -nnn.nnnnnnn) -122.6648290	☒ Actual ☐ Estimated

30.A. Railroad Use *	31.A. State Use *
30.B. Railroad Use *	31.B. State Use *
30.C. Railroad Use *	31.C. State Use * State Phone# updated - date updated: 2018-08-31
30.D. Railroad Use *	31.D. State Use * C-769.24
32.A. Narrative (Railroad Use) *	32.B. Narrative (State Use) * QZ CORRECTION.

33. Emergency Notification Telephone No. (posted)	34. Railroad Contact (Telephone No.)	35. State Contact (Telephone No.)
800-848-8715	402-544-3721	509-986-4273

Part II: Railroad Information

1. Estimated Number of Daily Train Movements

1.A. Total Day Thru Trains (6 AM to 6 PM)	1.B. Total Night Thru Trains (6 PM to 6 AM)	1.C. Total Switching Trains	1.D. Total Transit Trains	1.E. Check if Less Than One Movement Per Day ☐ How many trains per week?
13	12	2	0	

2. Year of Train Count Data (YYYY)	3. Speed of Train at Crossing
2020	3.A. Maximum Timetable Speed (mph) 35 3.B. Typical Speed Range Over Crossing (mph) From 17 to 35

4. Type and Count of Tracks
Main 2 Siding 0 Yard 0 Transit 0 Industry 0

5. Train Detection (Main Track only)
☒ Constant Warning Time ☐ Motion Detection ☐AFO ☐ PTC ☐ DC ☐ Other ☐ None

6. Is Track Signaled?	7.A. Event Recorder	7.B. Remote Health Monitoring
☒ Yes ☐ No	☒ Yes ☐ No	☐ Yes ☒ No

U. S. DOT CROSSING INVENTORY FORM

A. Revision Date *(MM/DD/YYYY)*	PAGE 2	D. Crossing Inventory Number *(7 char.)*
03/19/2021		754559V

Part III: Highway or Pathway Traffic Control Device Information

1. Are there Signs or Signals? ☒ Yes ☐ No

2. Types of Passive Traffic Control Devices associated with the Crossing

2.A. Crossbuck Assemblies *(count)*	2.B. STOP Signs *(R1-1)* *(count)*	2.C. YIELD Signs *(R1-2)* *(count)*	2.D. Advance Warning Signs *(Check all that apply; include count)* ☐ None
0	0	0	☒ W10-1 2 ☐ W10-3 ☐ W10-11 ☐ W10-2 ☐ W10-4 ☐ W10-12

2.E. Low Ground Clearance Sign *(W10-5)*	2.F. Pavement Markings	2.G. Channelization Devices/Medians	2.H. EXEMPT Sign *(R15-3)*	2.I. ENS Sign *(I-13)* Displayed
☐ Yes *(count_____)* ☒ No	☒ Stop Lines ☐ Dynamic Envelope ☒ RR Xing Symbols ☐ None	☐ All Approaches ☐ Median ☐ One Approach ☒ None	☐ Yes ☒ No	☒ Yes ☐ No

2.J. Other MUTCD Signs ☐ Yes ☒ No	2.K. Private Crossing Signs *(if private)*	2.L. LED Enhanced Signs *(List types)*
Specify Type _____ Count _____ Specify Type _____ Count _____ Specify Type _____ Count _____	☐ Yes ☐ No	

3. Types of Train Activated Warning Devices at the Grade Crossing *(specify count of each device for all that apply)*

3.A. Gate Arms *(count)*	3.B. Gate Configuration	3.C. Cantilevered *(or Bridged)* Flashing Light Structures *(count)*	3.D. Mast Mounted Flashing Lights *(count of masts)* 2	3.E. Total Count of Flashing Light Pairs
Roadway 2 Pedestrian 0	☒ 2 Quad ☐ Full *(Barrier)* Resistance ☐ 3 Quad ☐ 4 Quad ☐ Median Gates	Over Traffic Lane 2 ☐ Incandescent Not Over Traffic Lane 0 ☒ LED	☐ Incandescent ☒ LED ☒ Back Lights Included ☐ Side Lights Included	8

3.F. Installation Date of Current Active Warning Devices: *(MM/YYYY)*	3.G. Wayside Horn	3.H. Highway Traffic Signals Controlling Crossing	3.I. Bells *(count)*
_____/_____ ☒ Not Required	☐ Yes Installed on *(MM/YYYY)* _____/_____ ☒ No	☐ Yes ☒ No	2

3.J. Non-Train Active Warning	3.K. Other Flashing Lights or Warning Devices
☐ Flagging/Flagman ☐ Manually Operated Signals ☐ Watchman ☐ Floodlighting ☒ None	Count 0 Specify type _____

4.A. Does nearby Hwy Intersection have Traffic Signals?	4.B. Hwy Traffic Signal Interconnection	4.C. Hwy Traffic Signal Preemption	5. Highway Traffic Pre-Signals	6. Highway Monitoring Devices *(Check all that apply)*
☒ Yes ☐ No	☒ Not Interconnected ☐ For Traffic Signals ☐ For Warning Signs	☐ Simultaneous ☐ Advance	☐ Yes ☒ No Storage Distance * _____ Stop Line Distance * _____	☐ Yes - Photo/Video Recording ☐ Yes – Vehicle Presence Detection ☒ None

Part IV: Physical Characteristics

1. Traffic Lanes Crossing Railroad	2. Is Roadway/Pathway Paved?	3. Does Track Run Down a Street?	4. Is Crossing Illuminated? *(Street lights within approx. 50 feet from nearest rail)*
☐ One-way Traffic ☒ Two-way Traffic Number of Lanes 2 ☐ Divided Traffic	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No

5. Crossing Surface *(on Main Track, multiple types allowed)* Installation Date * *(MM/YYYY)* _____/_____ Width * _____ Length * 60

☐ 1 Timber ☐ 2 Asphalt ☐ 3 Asphalt and Timber ☒ 4 Concrete ☐ 5 Concrete and Rubber ☐ 6 Rubber ☐ 7 Metal
☐ 8 Unconsolidated ☐ 9 Composite ☐ 10 Other *(specify)* _____

6. Intersecting Roadway within 500 feet?	7. Smallest Crossing Angle	8. Is Commercial Power Available? *
☒ Yes ☐ No If Yes, Approximate Distance *(feet)* _____	☐ 0° – 29° ☐ 30° – 59° ☒ 60° - 90°	☒ Yes ☐ No

Part V: Public Highway Information

1. Highway System	2. Functional Classification of Road at Crossing	3. Is Crossing on State Highway System?	4. Highway Speed Limit
☐ (01) Interstate Highway System ☒ (02) Other Nat Hwy System (NHS) ☐ (03) Federal AID, Not NHS ☐ (08) Non-Federal Aid	☐ (0) Rural ☒ (1) Urban ☐ (1) Interstate ☒ (5) Major Collector ☐ (2) Other Freeways and Expressways ☐ (3) Other Principal Arterial ☐ (6) Minor Collector ☐ (4) Minor Arterial ☐ (7) Local	☐ Yes ☒ No	_____ MPH ☐ Posted ☐ Statutory

5. Linear Referencing System *(LRS Route ID)* *

6. LRS Milepost *

7. Annual Average Daily Traffic *(AADT)*	8. Estimated Percent Trucks	9. Regularly Used by School Buses?	10. Emergency Services Route
Year 1994 AADT 3992	25 %	☐ Yes ☒ No Average Number per Day _____	☐ Yes ☐ No

Submission Information - *This information is used for administrative purposes and is not available on the public website.*

Submitted by _____ Organization _____ Phone _____ Date _____

U. S. DOT CROSSING INVENTORY FORM

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk * denotes an optional field.

A. Revision Date *(MM/DD/YYYY)*	B. Reporting Agency	C. Reason for Update *(Select only one)*	D. DOT Crossing Inventory Number
03 / 22 / 2021	☒ Railroad ☐ Transit ☐ State ☐ Other	☒ Change in Data ☐ New Crossing ☐ Closed ☐ No Train Traffic ☐ Quiet Zone Update ☐ Re-Open ☐ Date Change Only ☐ Change in Primary Operating RR ☐ Admin. Correction	754553E

Part I: Location and Classification Information

1. Primary Operating Railroad	2. State	3. County
Union Pacific Railroad Company [UP]	OREGON	MULTNOMAH

4. City / Municipality	5. Street/Road Name & Block Number	6. Highway Type & No.
☒ In ☐ Near PORTLAND	Southeast Main Street *(Street/Road Name)* | * *(Block Number)*	LS

7. Do Other Railroads Operate a Separate Track at Crossing?	8. Do Other Railroads Operate Over Your Track at Crossing?
☐ Yes ☒ No If Yes, Specify RR _____, _____, _____, _____	☒ Yes ☐ No If Yes, Specify RR ATK, BNSF, PNWR, _____

9. Railroad Division or Region	10. Railroad Subdivision or District	11. Branch or Line Name	12. RR Milepost
☐ None Pacific Northwest	☐ None Brooklyn Sub	☒ None	_____ | 0769.380 | _____ *(prefix) | (nnnn.nnn) | (suffix)*

13. Line Segment *	14. Nearest RR Timetable Station *	15. Parent RR *(if applicable)*	16. Crossing Owner *(if applicable)*
		☒ N/A	☐ N/A UP

17. Crossing Type	18. Crossing Purpose	19. Crossing Position	20. Public Access *(if Private Crossing)*	21. Type of Train	22. Average Passenger Train Count Per Day
☒ Public ☐ Private	☒ Highway ☐ Pathway, Ped. ☐ Station, Ped.	☒ At Grade ☐ RR Under ☐ RR Over	☐ Yes ☐ No	☒ Freight ☐ Transit ☒ Intercity Passenger ☐ Shared Use Transit ☐ Commuter ☐ Tourist/Other	☐ Less Than One Per Day ☒ Number Per Day 6

23. Type of Land Use
☐ Open Space ☐ Farm ☐ Residential ☒ Commercial ☐ Industrial ☐ Institutional ☐ Recreational ☐ RR Yard

24. Is there an Adjacent Crossing with a Separate Number?	25. Quiet Zone *(FRA provided)*
☐ Yes ☒ No If Yes, Provide Crossing Number _____	☒ No ☐ 24 Hr ☐ Partial ☐ Chicago Excused Date Established _____

26. HSR Corridor ID	27. Latitude in decimal degrees	28. Longitude in decimal degrees	29. Lat/Long Source
☒ N/A	*(WGS84 std: nn.nnnnnnn)* 45.5136760	*(WGS84 std: -nnn.nnnnnnn)* -122.6648290	☒ Actual ☐ Estimated

30.A. Railroad Use *	31.A. State Use *
30.B. Railroad Use *	31.B. State Use *
30.C. Railroad Use *	31.C. State Use * State Phone# updated - date updated: 2022-10-20
30.D. Railroad Use *	31.D. State Use * C-769.38
32.A. Narrative *(Railroad Use)* *	32.B. Narrative *(State Use)* *

33. Emergency Notification Telephone No. *(posted)*	34. Railroad Contact *(Telephone No.)*	35. State Contact *(Telephone No.)*
800-848-8715	402-544-3721	541-250-6788

Part II: Railroad Information

1. Estimated Number of Daily Train Movements

1.A. Total Day Thru Trains *(6 AM to 6 PM)*	1.B. Total Night Thru Trains *(6 PM to 6 AM)*	1.C. Total Switching Trains	1.D. Total Transit Trains	1.E. Check if Less Than One Movement Per Day ☐ How many trains per week?
13	12	3	0	

2. Year of Train Count Data *(YYYY)*	3. Speed of Train at Crossing
2020	3.A. Maximum Timetable Speed *(mph)* 35 3.B. Typical Speed Range Over Crossing *(mph)* From 17 to 35

4. Type and Count of Tracks
Main 2 Siding 0 Yard 0 Transit 0 Industry 0

5. Train Detection *(Main Track only)*
☒ Constant Warning Time ☐ Motion Detection ☐AFO ☐ PTC ☐ DC ☐ Other ☐ None

6. Is Track Signaled?	7.A. Event Recorder	7.B. Remote Health Monitoring
☒ Yes ☐ No	☒ Yes ☐ No	☐ Yes ☒ No

U. S. DOT CROSSING INVENTORY FORM

A. Revision Date *(MM/DD/YYYY)*	PAGE 2	D. Crossing Inventory Number *(7 char.)*
03/22/2021		754553E

Part III: Highway or Pathway Traffic Control Device Information

1. Are there Signs or Signals? ☒ Yes ☐ No

2. Types of Passive Traffic Control Devices associated with the Crossing

2.A. Crossbuck Assemblies *(count)*	2.B. STOP Signs *(R1-1)* *(count)*	2.C. YIELD Signs *(R1-2)* *(count)*	2.D. Advance Warning Signs *(Check all that apply; include count)* ☐ None
0	0	0	☒ W10-1 1 ☐ W10-3 ☐ W10-11 ☐ W10-2 ☐ W10-4 ☐ W10-12

2.E. Low Ground Clearance Sign *(W10-5)*	2.F. Pavement Markings	2.G. Channelization Devices/Medians	2.H. EXEMPT Sign *(R15-3)*	2.I. ENS Sign *(I-13)* Displayed
☐ Yes *(count 0)* ☒ No	☒ Stop Lines ☐ Dynamic Envelope ☒ RR Xing Symbols ☐ None	☐ All Approaches ☐ Median ☐ One Approach ☒ None	☐ Yes ☒ No	☒ Yes ☐ No

2.J. Other MUTCD Signs ☒ Yes ☐ No	2.K. Private Crossing Signs *(if private)*	2.L. LED Enhanced Signs *(List types)*
Specify Type ____ Count 2 Specify Type ____ Count 0 Specify Type ____ Count 0	☐ Yes ☐ No	

3. Types of Train Activated Warning Devices at the Grade Crossing *(specify count of each device for all that apply)*

3.A. Gate Arms *(count)*	3.B. Gate Configuration	3.C. Cantilevered *(or Bridged)* Flashing Light Structures *(count)*	3.D. Mast Mounted Flashing Lights *(count of masts)* 2	3.E. Total Count of Flashing Light Pairs
Roadway 2 Pedestrian 0	☒ 2 Quad ☐ Full *(Barrier)* Resistance ☐ 3 Quad ☐ 4 Quad ☐ Median Gates	Over Traffic Lane 0 ☐ Incandescent Not Over Traffic Lane 0 ☐ LED	☐ Incandescent ☒ LED ☒ Back Lights Included ☐ Side Lights Included	4

3.F. Installation Date of Current Active Warning Devices: *(MM/YYYY)*	3.G. Wayside Horn	3.H. Highway Traffic Signals Controlling Crossing	3.I. Bells *(count)*
____/____ ☒ Not Required	☐ Yes Installed on *(MM/YYYY)* ____/____ ☒ No	☐ Yes ☒ No	2

3.J. Non-Train Active Warning	3.K. Other Flashing Lights or Warning Devices
☐ Flagging/Flagman ☐ Manually Operated Signals ☐ Watchman ☐ Floodlighting ☒ None	Count 0 Specify type ____

4.A. Does nearby Hwy Intersection have Traffic Signals?	4.B. Hwy Traffic Signal Interconnection	4.C. Hwy Traffic Signal Preemption	5. Highway Traffic Pre-Signals	6. Highway Monitoring Devices *(Check all that apply)*
☐ Yes ☒ No	☒ Not Interconnected ☐ For Traffic Signals ☐ For Warning Signs	☐ Simultaneous ☐ Advance	☐ Yes ☒ No Storage Distance * ____ Stop Line Distance * ____	☐ Yes - Photo/Video Recording ☐ Yes – Vehicle Presence Detection ☒ None

Part IV: Physical Characteristics

1. Traffic Lanes Crossing Railroad	2. Is Roadway/Pathway Paved?	3. Does Track Run Down a Street?	4. Is Crossing Illuminated? *(Street lights within approx. 50 feet from nearest rail)*
☐ One-way Traffic ☒ Two-way Traffic ☐ Divided Traffic Number of Lanes 2	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No

5. Crossing Surface *(on Main Track, multiple types allowed)* Installation Date * *(MM/YYYY)* ____/____ Width * ____ Length * ____
☐ 1 Timber ☐ 2 Asphalt ☐ 3 Asphalt and Timber ☒ 4 Concrete ☐ 5 Concrete and Rubber ☐ 6 Rubber ☐ 7 Metal
☐ 8 Unconsolidated ☐ 9 Composite ☐ 10 Other *(specify)* ____

6. Intersecting Roadway within 500 feet?	7. Smallest Crossing Angle	8. Is Commercial Power Available? *
☒ Yes ☐ No If Yes, Approximate Distance *(feet)* ____	☐ 0° – 29° ☐ 30° – 59° ☒ 60° - 90°	☒ Yes ☐ No

Part V: Public Highway Information

1. Highway System	2. Functional Classification of Road at Crossing	3. Is Crossing on State Highway System?	4. Highway Speed Limit
☐ (01) Interstate Highway System ☐ (02) Other Nat Hwy System (NHS) ☐ (03) Federal AID, Not NHS ☒ (08) Non-Federal Aid	☐ (0) Rural ☒ (1) Urban ☐ (1) Interstate ☐ (5) Major Collector ☐ (2) Other Freeways and Expressways ☐ (3) Other Principal Arterial ☐ (6) Minor Collector ☐ (4) Minor Arterial ☒ (7) Local	☐ Yes ☒ No	____ MPH ☐ Posted ☐ Statutory

5. Linear Referencing System *(LRS Route ID)* *

6. LRS Milepost *

7. Annual Average Daily Traffic *(AADT)*	8. Estimated Percent Trucks	9. Regularly Used by School Buses?	10. Emergency Services Route
Year 1988 AADT 500	40 %	☐ Yes ☒ No Average Number per Day 0	☐ Yes ☐ No

Submission Information - *This information is used for administrative purposes and is not available on the public website.*

Submitted by ____ Organization ____ Phone ____ Date ____

U. S. DOT CROSSING INVENTORY FORM

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk * denotes an optional field.

A. Revision Date (MM/DD/YYYY)	B. Reporting Agency	C. Reason for Update (Select only one)	D. DOT Crossing Inventory Number
03 / 19 / 2021	☒ Railroad ☐ Transit ☐ State ☐ Other	☒ Change in Data ☐ New Crossing ☐ Closed ☐ No Train Traffic ☐ Quiet Zone Update ☐ Re-Open ☐ Date Change Only ☐ Change in Primary Operating RR ☐ Admin. Correction	754552X

Part I: Location and Classification Information

1. Primary Operating Railroad	2. State	3. County
Union Pacific Railroad Company [UP]	OREGON	MULTNOMAH

4. City / Municipality	5. Street/Road Name & Block Number	6. Highway Type & No.
☒ In ☐ Near PORTLAND	Southeast Salmon Street (Street/Road Name) | * (Block Number)	LS

7. Do Other Railroads Operate a Separate Track at Crossing?	8. Do Other Railroads Operate Over Your Track at Crossing?
☐ Yes ☒ No If Yes, Specify RR	☒ Yes ☐ No If Yes, Specify RR ATK, BNSF, PNWR

9. Railroad Division or Region	10. Railroad Subdivision or District	11. Branch or Line Name	12. RR Milepost
☐ None Pacific Northwest	☐ None Brooklyn Sub	☒ None	(prefix) | 0769.430 | (suffix)

13. Line Segment *	14. Nearest RR Timetable Station *	15. Parent RR (if applicable)	16. Crossing Owner (if applicable)
		☒ N/A	☐ N/A UP

17. Crossing Type	18. Crossing Purpose	19. Crossing Position	20. Public Access (if Private Crossing)	21. Type of Train	22. Average Passenger Train Count Per Day
☒ Public ☐ Private	☒ Highway ☐ Pathway, Ped. ☐ Station, Ped.	☒ At Grade ☐ RR Under ☐ RR Over	☐ Yes ☐ No	☒ Freight ☒ Intercity Passenger ☐ Commuter ☐ Transit ☐ Shared Use Transit ☐ Tourist/Other	☐ Less Than One Per Day ☒ Number Per Day 6

23. Type of Land Use
☐ Open Space ☐ Farm ☐ Residential ☐ Commercial ☒ Industrial ☐ Institutional ☐ Recreational ☐ RR Yard

24. Is there an Adjacent Crossing with a Separate Number?	25. Quiet Zone (FRA provided)
☐ Yes ☒ No If Yes, Provide Crossing Number	☒ No ☐ 24 Hr ☐ Partial ☐ Chicago Excused Date Established

26. HSR Corridor ID	27. Latitude in decimal degrees	28. Longitude in decimal degrees	29. Lat/Long Source
☒ N/A	(WGS84 std: nn.nnnnnnn) 45.5143870	(WGS84 std: -nnn.nnnnnnn) -122.6648200	☒ Actual ☐ Estimated

30.A. Railroad Use *	31.A. State Use *
30.B. Railroad Use *	31.B. State Use *
30.C. Railroad Use *	31.C. State Use * State Phone# updated - date updated: 2022-10-20
30.D. Railroad Use *	31.D. State Use * C-769.43
32.A. Narrative (Railroad Use) *	32.B. Narrative (State Use) * QZ CORRECTION.

33. Emergency Notification Telephone No. (posted)	34. Railroad Contact (Telephone No.)	35. State Contact (Telephone No.)
800-848-8715	402-544-3721	541-250-6788

Part II: Railroad Information

1. Estimated Number of Daily Train Movements

1.A. Total Day Thru Trains (6 AM to 6 PM)	1.B. Total Night Thru Trains (6 PM to 6 AM)	1.C. Total Switching Trains	1.D. Total Transit Trains	1.E. Check if Less Than One Movement Per Day ☐ How many trains per week?
13	12	3	0	

2. Year of Train Count Data (YYYY)	3. Speed of Train at Crossing
2020	3.A. Maximum Timetable Speed (mph) 35 3.B. Typical Speed Range Over Crossing (mph) From 17 to 35

4. Type and Count of Tracks
Main 2 Siding 0 Yard 0 Transit 0 Industry 0

5. Train Detection (Main Track only)
☒ Constant Warning Time ☐ Motion Detection ☐AFO ☐ PTC ☐ DC ☐ Other ☐ None

6. Is Track Signaled?	7.A. Event Recorder	7.B. Remote Health Monitoring
☒ Yes ☐ No	☒ Yes ☐ No	☐ Yes ☒ No

U. S. DOT CROSSING INVENTORY FORM

A. Revision Date *(MM/DD/YYYY)*	PAGE 2	D. Crossing Inventory Number *(7 char.)*
03/19/2021		754552X

Part III: Highway or Pathway Traffic Control Device Information

1. Are there Signs or Signals? ☒ Yes ☐ No

2. Types of Passive Traffic Control Devices associated with the Crossing

2.A. Crossbuck Assemblies *(count)*	2.B. STOP Signs *(R1-1)* *(count)*	2.C. YIELD Signs *(R1-2)* *(count)*	2.D. Advance Warning Signs *(Check all that apply; include count)* ☐ None
0	0	0	☒ W10-1 1 ☐ W10-3 ☐ W10-11 ☐ W10-2 ☐ W10-4 ☐ W10-12

2.E. Low Ground Clearance Sign *(W10-5)*	2.F. Pavement Markings	2.G. Channelization Devices/Medians	2.H. EXEMPT Sign *(R15-3)*	2.I. ENS Sign *(I-13)* Displayed
☐ Yes *(count_____)* ☒ No	☒ Stop Lines ☐ Dynamic Envelope ☒ RR Xing Symbols ☐ None	☐ All Approaches ☐ Median ☐ One Approach ☒ None	☐ Yes ☒ No	☒ Yes ☐ No

2.J. Other MUTCD Signs ☒ Yes ☐ No	2.K. Private Crossing Signs *(if private)*	2.L. LED Enhanced Signs *(List types)*
Specify Type _____ Count _____ Specify Type _____ Count _____ Specify Type _____ Count _____	☐ Yes ☐ No	

3. Types of Train Activated Warning Devices at the Grade Crossing *(specify count of each device for all that apply)*

3.A. Gate Arms *(count)*	3.B. Gate Configuration	3.C. Cantilevered *(or Bridged)* Flashing Light Structures *(count)*	3.D. Mast Mounted Flashing Lights *(count of masts)* 2	3.E. Total Count of Flashing Light Pairs
Roadway 2 Pedestrian 0	☒ 2 Quad ☐ Full *(Barrier)* Resistance ☐ 3 Quad ☐ 4 Quad ☐ Median Gates	Over Traffic Lane 0 ☐ Incandescent Not Over Traffic Lane 0 ☐ LED	☐ Incandescent ☒ LED ☒ Back Lights Included ☐ Side Lights Included	4

3.F. Installation Date of Current Active Warning Devices: *(MM/YYYY)*	3.G. Wayside Horn	3.H. Highway Traffic Signals Controlling Crossing	3.I. Bells *(count)*
_____/_____ ☒ Not Required	☐ Yes Installed on *(MM/YYYY)* _____/_____ ☒ No	☐ Yes ☒ No	2

3.J. Non-Train Active Warning	3.K. Other Flashing Lights or Warning Devices
☐ Flagging/Flagman ☐ Manually Operated Signals ☐ Watchman ☐ Floodlighting ☒ None	Count 0 Specify type _____

4.A. Does nearby Hwy Intersection have Traffic Signals?	4.B. Hwy Traffic Signal Interconnection	4.C. Hwy Traffic Signal Preemption	5. Highway Traffic Pre-Signals	6. Highway Monitoring Devices *(Check all that apply)*
☐ Yes ☒ No	☒ Not Interconnected ☐ For Traffic Signals ☐ For Warning Signs	☐ Simultaneous ☐ Advance	☐ Yes ☒ No Storage Distance * _____ Stop Line Distance * _____	☐ Yes - Photo/Video Recording ☐ Yes – Vehicle Presence Detection ☒ None

Part IV: Physical Characteristics

1. Traffic Lanes Crossing Railroad	2. Is Roadway/Pathway Paved?	3. Does Track Run Down a Street?	4. Is Crossing Illuminated? *(Street lights within approx. 50 feet from nearest rail)*
☐ One-way Traffic ☒ Two-way Traffic ☐ Divided Traffic Number of Lanes 2	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No

5. Crossing Surface *(on Main Track, multiple types allowed)* Installation Date * *(MM/YYYY)* _____/_____ Width * _____ Length * _____
☐ 1 Timber ☐ 2 Asphalt ☐ 3 Asphalt and Timber ☒ 4 Concrete ☐ 5 Concrete and Rubber ☐ 6 Rubber ☐ 7 Metal
☐ 8 Unconsolidated ☐ 9 Composite ☐ 10 Other *(specify)* _____

6. Intersecting Roadway within 500 feet?	7. Smallest Crossing Angle	8. Is Commercial Power Available? *
☒ Yes ☐ No If Yes, Approximate Distance *(feet)* _____	☐ 0° – 29° ☐ 30° – 59° ☒ 60° - 90°	☒ Yes ☐ No

Part V: Public Highway Information

1. Highway System	2. Functional Classification of Road at Crossing	3. Is Crossing on State Highway System?	4. Highway Speed Limit
☐ (01) Interstate Highway System ☐ (02) Other Nat Hwy System (NHS) ☐ (03) Federal AID, Not NHS ☒ (08) Non-Federal Aid	☐ (0) Rural ☒ (1) Urban ☐ (1) Interstate ☐ (5) Major Collector ☐ (2) Other Freeways and Expressways ☐ (3) Other Principal Arterial ☐ (6) Minor Collector ☐ (4) Minor Arterial ☒ (7) Local	☐ Yes ☒ No	_____ MPH ☐ Posted ☐ Statutory

5. Linear Referencing System *(LRS Route ID)* *

6. LRS Milepost *

7. Annual Average Daily Traffic *(AADT)*	8. Estimated Percent Trucks	9. Regularly Used by School Buses?	10. Emergency Services Route
Year 1988 AADT 500	40 %	☐ Yes ☒ No Average Number per Day _____	☐ Yes ☐ No

Submission Information - *This information is used for administrative purposes and is not available on the public website.*

Submitted by _____ Organization _____ Phone _____ Date _____

U. S. DOT CROSSING INVENTORY FORM

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk * denotes an optional field.

A. Revision Date *(MM/DD/YYYY)*: 03 / 19 / 2021

B. Reporting Agency: ☒ Railroad ☐ Transit ☐ State ☐ Other

C. Reason for Update *(Select only one)*: ☒ Change in Data ☐ New Crossing ☐ Closed ☐ No Train Traffic ☐ Quiet Zone Update ☐ Re-Open ☐ Date Change Only ☐ Change in Primary Operating RR ☐ Admin. Correction

D. DOT Crossing Inventory Number: 754550J

Part I: Location and Classification Information

1. Primary Operating Railroad: Union Pacific Railroad Company [UP]

2. State: OREGON

3. County: MULTNOMAH

4. City / Municipality: ☒ In ☐ Near PORTLAND

5. Street/Road Name & Block Number: SOUTHEAST YAMHILL STREET | *(Street/Road Name)* | ** (Block Number)*

6. Highway Type & No.: CITY

7. Do Other Railroads Operate a Separate Track at Crossing? ☐ Yes ☒ No
If Yes, Specify RR: _____, _____, _____, _____

8. Do Other Railroads Operate Over Your Track at Crossing? ☒ Yes ☐ No
If Yes, Specify RR: ATK, BNSF, PNWR, _____

9. Railroad Division or Region: ☐ None Pacific Northwest

10. Railroad Subdivision or District: ☐ None Brooklyn Sub

11. Branch or Line Name: ☒ None

12. RR Milepost: _____ | 0769.510 | _____ *(prefix) | (nnnn.nnn) | (suffix)*

13. Line Segment *:

14. Nearest RR Timetable Station *:

15. Parent RR *(if applicable)*: ☒ N/A

16. Crossing Owner *(if applicable)*: ☐ N/A UP

17. Crossing Type: ☒ Public ☐ Private

18. Crossing Purpose: ☒ Highway ☐ Pathway, Ped. ☐ Station, Ped.

19. Crossing Position: ☒ At Grade ☐ RR Under ☐ RR Over

20. Public Access *(if Private Crossing)*: ☐ Yes ☐ No

21. Type of Train: ☒ Freight ☐ Transit ☒ Intercity Passenger ☐ Shared Use Transit ☐ Commuter ☐ Tourist/Other

22. Average Passenger Train Count Per Day: ☐ Less Than One Per Day ☒ Number Per Day 6

23. Type of Land Use: ☐ Open Space ☐ Farm ☐ Residential ☐ Commercial ☒ Industrial ☐ Institutional ☐ Recreational ☐ RR Yard

24. Is there an Adjacent Crossing with a Separate Number?: ☐ Yes ☒ No If Yes, Provide Crossing Number _____

25. Quiet Zone *(FRA provided)*: ☒ No ☐ 24 Hr ☐ Partial ☐ Chicago Excused Date Established _____

26. HSR Corridor ID: ☒ N/A

27. Latitude in decimal degrees *(WGS84 std: nn.nnnnnnn)*: 45.5157293

28. Longitude in decimal degrees *(WGS84 std: -nnn.nnnnnnn)*: -122.6648666

29. Lat/Long Source: ☒ Actual ☐ Estimated

30.A. Railroad Use *:

30.B. Railroad Use *:

30.C. Railroad Use *:

30.D. Railroad Use *:

31.A. State Use *:

31.B. State Use *:

31.C. State Use *: State Phone# updated - date updated: 2018-08-31

31.D. State Use *: C-769.53

32.A. Narrative *(Railroad Use)* *****:

32.B. Narrative *(State Use)* *****: qz correction.

33. Emergency Notification Telephone No. *(posted)*: 800-848-8715

34. Railroad Contact *(Telephone No.)*: 402-544-3721

35. State Contact *(Telephone No.)*: 509-986-4273

Part II: Railroad Information

1. Estimated Number of Daily Train Movements

1.A. Total Day Thru Trains *(6 AM to 6 PM)*	1.B. Total Night Thru Trains *(6 PM to 6 AM)*	1.C. Total Switching Trains	1.D. Total Transit Trains	1.E. Check if Less Than One Movement Per Day ☐ How many trains per week?
13	12	3	0	

2. Year of Train Count Data *(YYYY)*: 2020

3. Speed of Train at Crossing
3.A. Maximum Timetable Speed *(mph)*: 35
3.B. Typical Speed Range Over Crossing *(mph)* From 17 to 35

4. Type and Count of Tracks
Main 2 Siding 0 Yard 0 Transit 0 Industry 0

5. Train Detection *(Main Track only)*
☒ Constant Warning Time ☐ Motion Detection ☐ AFO ☐ PTC ☐ DC ☐ Other ☐ None

6. Is Track Signaled? ☐ Yes ☒ No

7.A. Event Recorder ☒ Yes ☐ No

7.B. Remote Health Monitoring ☐ Yes ☒ No

U. S. DOT CROSSING INVENTORY FORM

A. Revision Date *(MM/DD/YYYY)*	PAGE 2	D. Crossing Inventory Number *(7 char.)*
03/19/2021		754550J

Part III: Highway or Pathway Traffic Control Device Information

1. Are there Signs or Signals? ☒ Yes ☐ No

2. Types of Passive Traffic Control Devices associated with the Crossing

2.A. Crossbuck Assemblies *(count)*	2.B. STOP Signs *(R1-1)* *(count)*	2.C. YIELD Signs *(R1-2)* *(count)*	2.D. Advance Warning Signs *(Check all that apply; include count)* ☐ None
0	0	0	☒ W10-1 2 ☐ W10-3 ☐ W10-11 ☐ W10-2 ☐ W10-4 ☐ W10-12

2.E. Low Ground Clearance Sign *(W10-5)*	2.F. Pavement Markings	2.G. Channelization Devices/Medians	2.H. EXEMPT Sign *(R15-3)*	2.I. ENS Sign *(I-13)* Displayed
☐ Yes *(count_____)* ☒ No	☒ Stop Lines ☐ Dynamic Envelope ☒ RR Xing Symbols ☐ None	☐ All Approaches ☐ Median ☐ One Approach ☒ None	☐ Yes ☒ No	☒ Yes ☐ No

2.J. Other MUTCD Signs ☒ Yes ☐ No	2.K. Private Crossing Signs *(if private)*	2.L. LED Enhanced Signs *(List types)*
Specify Type _____ Count _____ Specify Type _____ Count _____ Specify Type _____ Count _____	☐ Yes ☐ No	

3. Types of Train Activated Warning Devices at the Grade Crossing *(specify count of each device for all that apply)*

3.A. Gate Arms *(count)*	3.B. Gate Configuration	3.C. Cantilevered *(or Bridged)* Flashing Light Structures *(count)*	3.D. Mast Mounted Flashing Lights *(count of masts)* 2	3.E. Total Count of Flashing Light Pairs
Roadway 2 Pedestrian _____	☒ 2 Quad ☐ Full *(Barrier)* Resistance ☐ 3 Quad ☐ 4 Quad ☐ Median Gates	Over Traffic Lane 0 ☐ Incandescent Not Over Traffic Lane 0 ☐ LED	☐ Incandescent ☒ LED ☒ Back Lights Included ☐ Side Lights Included	4

3.F. Installation Date of Current Active Warning Devices: *(MM/YYYY)*	3.G. Wayside Horn	3.H. Highway Traffic Signals Controlling Crossing	3.I. Bells *(count)*
_____/_____ ☒ Not Required	☐ Yes Installed on *(MM/YYYY)* _____/_____ ☒ No	☐ Yes ☒ No	2

3.J. Non-Train Active Warning	3.K. Other Flashing Lights or Warning Devices
☐ Flagging/Flagman ☐ Manually Operated Signals ☐ Watchman ☐ Floodlighting ☐ None	Count 0 Specify type _____

4.A. Does nearby Hwy Intersection have Traffic Signals?	4.B. Hwy Traffic Signal Interconnection	4.C. Hwy Traffic Signal Preemption	5. Highway Traffic Pre-Signals	6. Highway Monitoring Devices *(Check all that apply)*
☐ Yes ☐ No	☐ Not Interconnected ☐ For Traffic Signals ☐ For Warning Signs	☐ Simultaneous ☐ Advance	☐ Yes ☒ No Storage Distance * _____ Stop Line Distance * _____	☐ Yes - Photo/Video Recording ☐ Yes – Vehicle Presence Detection ☐ None

Part IV: Physical Characteristics

1. Traffic Lanes Crossing Railroad	2. Is Roadway/Pathway Paved?	3. Does Track Run Down a Street?	4. Is Crossing Illuminated? *(Street lights within approx. 50 feet from nearest rail)*
☐ One-way Traffic ☒ Two-way Traffic ☐ Divided Traffic Number of Lanes 2	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No

5. Crossing Surface *(on Main Track, multiple types allowed)* Installation Date * *(MM/YYYY)* _____/_____ Width * _____ Length * 60

☐ 1 Timber ☐ 2 Asphalt ☐ 3 Asphalt and Timber ☒ 4 Concrete ☐ 5 Concrete and Rubber ☐ 6 Rubber ☐ 7 Metal
☐ 8 Unconsolidated ☐ 9 Composite ☐ 10 Other *(specify)* _____

6. Intersecting Roadway within 500 feet?	7. Smallest Crossing Angle	8. Is Commercial Power Available? *
☒ Yes ☐ No If Yes, Approximate Distance *(feet)* _____	☐ 0° – 29° ☐ 30° – 59° ☒ 60° - 90°	☒ Yes ☐ No

Part V: Public Highway Information

1. Highway System	2. Functional Classification of Road at Crossing	3. Is Crossing on State Highway System?	4. Highway Speed Limit
☐ (01) Interstate Highway System ☐ (02) Other Nat Hwy System (NHS) ☐ (03) Federal AID, Not NHS ☒ (08) Non-Federal Aid	☐ (0) Rural ☒ (1) Urban ☐ (1) Interstate ☐ (5) Major Collector ☐ (2) Other Freeways and Expressways ☐ (3) Other Principal Arterial ☐ (6) Minor Collector ☐ (4) Minor Arterial ☒ (7) Local	☐ Yes ☒ No	_____ MPH ☐ Posted ☐ Statutory

5. Linear Referencing System *(LRS Route ID)* *

6. LRS Milepost *

7. Annual Average Daily Traffic *(AADT)*	8. Estimated Percent Trucks	9. Regularly Used by School Buses?	10. Emergency Services Route
Year 1988 AADT 2600	40 %	☐ Yes ☒ No Average Number per Day _____	☐ Yes ☐ No

Submission Information - *This information is used for administrative purposes and is not available on the public website.*

Submitted by _____ Organization _____ Phone _____ Date _____

U. S. DOT CROSSING INVENTORY FORM

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk * denotes an optional field.

A. Revision Date *(MM/DD/YYYY)*: 03 / 19 / 2021

B. Reporting Agency: ☒ Railroad ☐ Transit ☐ State ☐ Other

C. Reason for Update *(Select only one)*: ☒ Change in Data ☐ New Crossing ☐ Closed ☐ No Train Traffic ☐ Quiet Zone Update ☐ Re-Open ☐ Date Change Only ☐ Change in Primary Operating RR ☐ Admin. Correction

D. DOT Crossing Inventory Number: 754542S

Part I: Location and Classification Information

1. Primary Operating Railroad: Union Pacific Railroad Company [UP]

2. State: OREGON

3. County: MULTNOMAH

4. City / Municipality: ☒ In ☐ Near PORTLAND

5. Street/Road Name & Block Number: Southeast Stark Street | *(Street/Road Name)* | ** (Block Number)*

6. Highway Type & No.: LS

7. Do Other Railroads Operate a Separate Track at Crossing? ☐ Yes ☒ No
If Yes, Specify RR: _____, _____, _____, _____

8. Do Other Railroads Operate Over Your Track at Crossing? ☒ Yes ☐ No
If Yes, Specify RR: ATK, BNSF, PNWR, _____

9. Railroad Division or Region: ☐ None Pacific Northwest

10. Railroad Subdivision or District: ☐ None Brooklyn Sub

11. Branch or Line Name: ☒ None

12. RR Milepost: _____ | 0769.780 | _____ *(prefix) | (nnnn.nnn) | (suffix)*

13. Line Segment *: _____

14. Nearest RR Timetable Station *: _____

15. Parent RR *(if applicable)*: ☒ N/A

16. Crossing Owner *(if applicable)*: ☐ N/A UP

17. Crossing Type: ☒ Public ☐ Private

18. Crossing Purpose: ☒ Highway ☐ Pathway, Ped. ☐ Station, Ped.

19. Crossing Position: ☒ At Grade ☐ RR Under ☐ RR Over

20. Public Access *(if Private Crossing)*: ☐ Yes ☐ No

21. Type of Train: ☒ Freight ☐ Transit ☒ Intercity Passenger ☐ Shared Use Transit ☐ Commuter ☐ Tourist/Other

22. Average Passenger Train Count Per Day: ☐ Less Than One Per Day ☒ Number Per Day 6

23. Type of Land Use: ☐ Open Space ☐ Farm ☐ Residential ☐ Commercial ☒ Industrial ☐ Institutional ☐ Recreational ☐ RR Yard

24. Is there an Adjacent Crossing with a Separate Number?: ☐ Yes ☒ No If Yes, Provide Crossing Number _____

25. Quiet Zone *(FRA provided)*: ☒ No ☐ 24 Hr ☐ Partial ☐ Chicago Excused Date Established _____

26. HSR Corridor ID: _____ ☒ N/A

27. Latitude in decimal degrees *(WGS84 std: nn.nnnnnnn)*: 45.5193913

28. Longitude in decimal degrees *(WGS84 std: -nnn.nnnnnnn)*: -122.6648742

29. Lat/Long Source: ☒ Actual ☐ Estimated

30.A. Railroad Use *:

31.A. State Use *:

30.B. Railroad Use *:

31.B. State Use *:

30.C. Railroad Use *:

31.C. State Use *: State Phone# updated - date updated: 2022-10-20

30.D. Railroad Use *:

31.D. State Use *: C-769.78

32.A. Narrative *(Railroad Use)* *****:

32.B. Narrative *(State Use)* *****: QZ CORRECTION

33. Emergency Notification Telephone No. *(posted)*: 800-848-8715

34. Railroad Contact *(Telephone No.)*: 402-544-3721

35. State Contact *(Telephone No.)*: 541-250-6788

Part II: Railroad Information

1. Estimated Number of Daily Train Movements

1.A. Total Day Thru Trains *(6 AM to 6 PM)*: 13

1.B. Total Night Thru Trains *(6 PM to 6 AM)*: 12

1.C. Total Switching Trains: 0

1.D. Total Transit Trains: 0

1.E. Check if Less Than One Movement Per Day ☐ How many trains per week? _____

2. Year of Train Count Data *(YYYY)*: 2020

3. Speed of Train at Crossing
3.A. Maximum Timetable Speed *(mph)*: 35
3.B. Typical Speed Range Over Crossing *(mph)* From 17 to 35

4. Type and Count of Tracks
Main 2 Siding 0 Yard 0 Transit 0 Industry 0

5. Train Detection *(Main Track only)*
☒ Constant Warning Time ☐ Motion Detection ☐AFO ☐ PTC ☐ DC ☐ Other ☐ None

6. Is Track Signaled? ☒ Yes ☐ No

7.A. Event Recorder ☒ Yes ☐ No

7.B. Remote Health Monitoring ☐ Yes ☒ No

U. S. DOT CROSSING INVENTORY FORM

A. Revision Date *(MM/DD/YYYY)*	PAGE 2	D. Crossing Inventory Number *(7 char.)*
03/19/2021		754542S

Part III: Highway or Pathway Traffic Control Device Information

1. Are there Signs or Signals? ☒ Yes ☐ No

2. Types of Passive Traffic Control Devices associated with the Crossing

2.A. Crossbuck Assemblies *(count)*	2.B. STOP Signs *(R1-1)* *(count)*	2.C. YIELD Signs *(R1-2)* *(count)*	2.D. Advance Warning Signs *(Check all that apply; include count)* ☐ None
0	0	0	☒ W10-1 2 ☐ W10-3 ☐ W10-11 ☐ W10-2 ☐ W10-4 ☐ W10-12

2.E. Low Ground Clearance Sign *(W10-5)*	2.F. Pavement Markings	2.G. Channelization Devices/Medians	2.H. EXEMPT Sign *(R15-3)*	2.I. ENS Sign *(I-13)* Displayed
☐ Yes *(count_____)* ☒ No	☒ Stop Lines ☐ Dynamic Envelope ☒ RR Xing Symbols ☐ None	☐ All Approaches ☐ Median ☐ One Approach ☒ None	☐ Yes ☒ No	☒ Yes ☐ No

2.J. Other MUTCD Signs ☒ Yes ☐ No	2.K. Private Crossing Signs *(if private)*	2.L. LED Enhanced Signs *(List types)*
Specify Type _____ Count _____ Specify Type _____ Count _____ Specify Type _____ Count _____	☐ Yes ☐ No	

3. Types of Train Activated Warning Devices at the Grade Crossing *(specify count of each device for all that apply)*

3.A. Gate Arms *(count)*	3.B. Gate Configuration	3.C. Cantilevered *(or Bridged)* Flashing Light Structures *(count)*	3.D. Mast Mounted Flashing Lights *(count of masts)* 2	3.E. Total Count of Flashing Light Pairs
Roadway 2 Pedestrian 0	☒ 2 Quad ☐ Full *(Barrier)* Resistance ☐ 3 Quad ☐ 4 Quad ☐ Median Gates	Over Traffic Lane 0 ☐ Incandescent Not Over Traffic Lane 0 ☐ LED	☐ Incandescent ☒ LED ☒ Back Lights Included ☐ Side Lights Included	4

3.F. Installation Date of Current Active Warning Devices: *(MM/YYYY)*	3.G. Wayside Horn	3.H. Highway Traffic Signals Controlling Crossing	3.I. Bells *(count)*
_____/_____ ☒ Not Required	☐ Yes Installed on *(MM/YYYY)* _____/_____ ☒ No	☐ Yes ☒ No	2

3.J. Non-Train Active Warning	3.K. Other Flashing Lights or Warning Devices
☐ Flagging/Flagman ☐ Manually Operated Signals ☐ Watchman ☐ Floodlighting ☒ None	Count 0 Specify type _____

4.A. Does nearby Hwy Intersection have Traffic Signals?	4.B. Hwy Traffic Signal Interconnection	4.C. Hwy Traffic Signal Preemption	5. Highway Traffic Pre-Signals	6. Highway Monitoring Devices *(Check all that apply)*
☐ Yes ☒ No	☒ Not Interconnected ☐ For Traffic Signals ☐ For Warning Signs	☐ Simultaneous ☐ Advance	☐ Yes ☒ No Storage Distance * _____ Stop Line Distance * _____	☐ Yes - Photo/Video Recording ☐ Yes – Vehicle Presence Detection ☒ None

Part IV: Physical Characteristics

1. Traffic Lanes Crossing Railroad	2. Is Roadway/Pathway Paved?	3. Does Track Run Down a Street?	4. Is Crossing Illuminated? *(Street lights within approx. 50 feet from nearest rail)*
☐ One-way Traffic ☒ Two-way Traffic ☐ Divided Traffic Number of Lanes 2	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No

5. Crossing Surface *(on Main Track, multiple types allowed)* Installation Date * *(MM/YYYY)* _____/_____ Width * _____ Length * _____
☐ 1 Timber ☐ 2 Asphalt ☐ 3 Asphalt and Timber ☒ 4 Concrete ☐ 5 Concrete and Rubber ☐ 6 Rubber ☐ 7 Metal
☐ 8 Unconsolidated ☐ 9 Composite ☐ 10 Other *(specify)* _____

6. Intersecting Roadway within 500 feet?	7. Smallest Crossing Angle	8. Is Commercial Power Available? *
☒ Yes ☐ No If Yes, Approximate Distance *(feet)* _____	☐ 0° – 29° ☐ 30° – 59° ☒ 60° - 90°	☒ Yes ☐ No

Part V: Public Highway Information

1. Highway System	2. Functional Classification of Road at Crossing	3. Is Crossing on State Highway System?	4. Highway Speed Limit
☐ (01) Interstate Highway System ☒ (02) Other Nat Hwy System (NHS) ☐ (03) Federal AID, Not NHS ☐ (08) Non-Federal Aid	☐ (0) Rural ☒ (1) Urban ☐ (1) Interstate ☒ (5) Major Collector ☐ (2) Other Freeways and Expressways ☐ (3) Other Principal Arterial ☐ (6) Minor Collector ☐ (4) Minor Arterial ☐ (7) Local	☐ Yes ☒ No	_____ MPH ☐ Posted ☐ Statutory

5. Linear Referencing System *(LRS Route ID)* *

6. LRS Milepost *

7. Annual Average Daily Traffic *(AADT)*	8. Estimated Percent Trucks	9. Regularly Used by School Buses?	10. Emergency Services Route
Year 2003 AADT 5223	30 %	☐ Yes ☒ No Average Number per Day _____	☐ Yes ☐ No

Submission Information - *This information is used for administrative purposes and is not available on the public website.*

Submitted by _____ Organization _____ Phone _____ Date _____

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION (FRA)

HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

1.Name of Reporting Railroad: Amtrak (National Railroad Passenger Corporation) [ATK]	1a. Alphabetic Code: ATK	1b. Railroad Accident/Incident No.: 164255
2.Name of Other Railroad or Other Entity Filling for Equipment Involved in Train Accident/Incident	2a. Alphabetic Code:	2b. Railroad Accident/Incident No.:
3. Name of Railroad or Other Entity Responsible for Track Maintenance (single entry): Union Pacific Railroad Company [UP]	3a. Alphabetic Code: UP	3b. Railroad Accident/Incident No.: XXX
4. U.S. DOT Grade Crossing ID No.: 754559V	5. Date of Accident/Incident: month 0 4 / day 2 4 / year 2020	6. Time of Accident/Incident: 8:11 AM ☑ PM ☐
7. Nearest Railroad Station: PORTLAND	8. Subdivision: BROOKLYN	9. County: MULTNOMAH
10. State: Abbr. OR	Code: 41	
11. City (if in a city): PORTLAND	12. Highway Name or No.: SE CLAY ST	Public ☑ Private ☐

Highway User Involved

13. Type: C. Truck-trailer; F. Bus; J. Other Motor Vehicle; A. Auto; D. Pick-up truck; G. School Bus; K. Pedestrian; B. Truck; E. Van; H. Motorcycle; M. Other (specify) — Code: K

14. Vehicle Speed (est. mph at impact):

15. Direction (geographical) 1. North 2. South 3. East 4. West — Code: 4

16. Position: 1. Stalled or stuck on crossing; 2. Stopped on Crossing; 3. Moving over crossing; 4. Trapped on crossing by traffic; 5. Blocked on crossing by gates — Code: 3

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: 4

Rail Equipment Involved

17. Equipment: 1. Train (units pulling); 2. Train (units pushing); 3. Train (standing); 4. Car(s) (moving); 5. Car(s) (standing); 6. Light loco(s) (moving); 7. Light loco(s) (standing); 8. Other (specify); A. Train pulling- RCL; B. Train pushing- RCL; C. Train standing- RCL; D. EMU Locomotive(s); E. DMU Locomotive(s) — Code: 1

18. Position of Car Unit in Train: 1

19. Circumstance: 1. Rail equipment struck highway user 2. Rail equipment struck by highway user — Code: 1

20b. Was there a hazardous materials release by 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: 4

20c. State here the name and quantity of the hazardous material released, if any

21. Temperature (specify if minus): 52 °F

22. Visibility (single entry): 1. Dawn 2. Day 3. Dusk 4. Dark — Code: 2

23. Weather (single entry): 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: 2

24. Type of Equipment Consist (single entry): 1. Freight Train; 2. Passenger Train-Pulling; 3. Commuter Train-Pulling; 4. Work Train; 5. Single Car; 6. Cut of cars; 7. Yard/Switching; 8. Light loco(s); 9. Maint./inspect. car; A. Spec. MoW Equip.; B. Passenger Train-Pushing; C. Commuter Train-Pushing; D. EMU; E. DMU — Code: 2

25. Track Type Used by Rail Equipment Involved: 1. Main 2. Yard 3. Siding 4. Industry — Code: 1

26. Track Number or Name: MAIN 1

27. FRA Track Class (1-9,X): 5

28. Number of Locomotive Units: 1

29. Number of Cars: 12

30. Consist Speed (Recorded speed if available): R. Recorded; E. Estimated — 34 mph — Code: R

31. Time Table Direction: 1. North 2. South 3. East 4. West — Code: 2

32. Type of Crossing Warning: 1. Gates; 2. Cantilever FLS; 3. Standard FLS; 4. Wig wags; 5. Hwy. traffic signals; 6. Audible; 7. Crossbucks; 8. Stop signs; 9. Watchman; 10. Flagged by crew; 11. Other (specify); 12. None

Code(s): 01 02 03 06 07

33. Signaled Crossing Warning (See reverse side for instructions and codes) — Code: 1

34. Roadway Conditions: A. Dry; B. Wet; C.Snow/Slush; D.Ice; E. Sand,Mud,Dirt,Oil,Gravel; F.Water (Standing, Moving) — Code: A

35. Location of Warning: 1. Both Sides; 2. Side of Vehicle Approach; 3. Opposite Side of Vehicle Approach — Code: 1

36. Crossing Warning Interconnected with Highway Signals: 1. Yes 2. No 3. Unknown — Code: 2

37. Crossing Illuminated by Street Lights or Special Lights: 1. Yes 2. No 3. Unknown — Code: 2

38. Highway User's Age: 75

39. Highway User's Gender: 1. Male 2. Female — Code: 2

40. Highway User Went Behind or in Front of Train and Struck or was Struck by Second Train: 1. Yes 2. No 3. Unknown — Code: 2

41. Highway User: 1. Went around the gate; 2. Stopped and then proceeded; 3. Did not stop; 4. Stopped on crossing; 5. Other (specify); 6. Went around/thru temporary barricade (if yes, see instructions); 7. Went thru the gate; 8. Suicide/Attempted suicide — Code: 1

42. Driver Passed Standing Highway Vehicle: 1. Yes 2. No 3. Unknown — Code:

43. View of Track Obscured by (primary obstruction): 1. Permanent Structure; 2. Standing railroad equipment; 3. Passing Train; 4. Topography; 5. Vegetation; 6. Highway Vehicles; 7. Other (specify); 8. Not Obstructed — Code: 8

Casualties to:	Killed	Injured
46. Highway-Rail Crossing Users	1	0
49. Railroad Employees	0	0
52. Passengers on Train	0	0

44. Driver was: 1. Killed 2. Injured 3. Uninjured

45. Was Driver in the Vehicle? 1. Yes 2. No — Code:

47. Highway Vehicle Property Damage (est. dollar damage): $0

48. Total Number of Vehicle Occupants (including driver): 0

50. Total Number of People on Train (include passengers and train crew): 5

51. Is a Rail Equipment Accident / Incident Report Being Filed 1. Yes 2. No — Code: 2

53a. Special Study Block — Video Taken? ☑ Yes ☐ No; Video Used? ☐ Yes ☑ No

53b. Special Study Block

54. Narrative Description (Be specific, and continue on separate sheet if necessary)

TRAIN 500 WITH CAMERA-EQUIPPED LOCOMOTIVE WS/1406 AND 12 CARS STRUCK A PEDESTRIAN AT MP 769.24, SOUTHEAST CLAY ST CROSSING.

55. Typed Name and Title | 56. Signature | 57. Date

NOTE: This report is part of the reporting railroad's accident report pursuant to the accident reports statute and, as such shall not "be admitted as evidence or used for any purpose in any suit or action for damages growing out of any matter mentioned in said report...." 49 U.S.C. 20903. See 49 C.F.R. 225.7 (b).

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION (FRA)

HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

1.Name of Reporting Railroad: Amtrak (National Railroad Passenger Corporation) [ATK]	1a. Alphabetic Code: ATK	1b. Railroad Accident/Incident No.: 172743
2.Name of Other Railroad or Other Entity Filling for Equipment Involved in Train Accident/Incident	2a. Alphabetic Code:	2b. Railroad Accident/Incident No.:
3. Name of Railroad or Other Entity Responsible for Track Maintenance (single entry): Union Pacific Railroad Company [UP]	3a. Alphabetic Code: UP	3b. Railroad Accident/Incident No.: XXX
4. U.S. DOT Grade Crossing ID No.: 754552X	5. Date of Accident/Incident (month/day/year): 1 / 1 / 1 5 / 2022	6. Time of Accident/Incident: 6:20 AM ☐ PM ☑
7. Nearest Railroad Station: PORTLAND	8. Subdivision: BROOKLYN	9. County: MULTNOMAH
10. State: Abbr. OR — Code: 41		
11. City (if in a city): PORTLAND	12. Highway Name or No.: SE SALMON ST	Public ☑ Private ☐

Highway User Involved

13. Type: C. Truck-trailer; F. Bus; J. Other Motor Vehicle; A. Auto; D. Pick-up truck; G. School Bus; K. Pedestrian; B. Truck; E. Van; H. Motorcycle; M. Other (specify) — Code: K

14. Vehicle Speed (est. mph at impact):

15. Direction (geographical): 1. North 2. South 3. East 4. West — Code: 4

16. Position: 1. Stalled or stuck on crossing; 2. Stopped on Crossing; 3. Moving over crossing; 4. Trapped on crossing by traffic; 5. Blocked on crossing by gates — Code: 3

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: 4

Rail Equipment Involved

17. Equipment: 1. Train (units pulling); 2. Train (units pushing); 3. Train (standing); 4. Car(s) (moving); 5. Car(s) (standing); 6. Light loco(s) (moving); 7. Light loco(s) (standing); 8. Other (specify); A. Train pulling- RCL; B. Train pushing- RCL; C. Train standing- RCL; D. EMU Locomotive(s); E. DMU Locomotive(s) — Code: 2

18. Position of Car Unit in Train: 1

19. Circumstance: 1. Rail equipment struck highway user 2. Rail equipment struck by highway user — Code: 1

20b. Was there a hazardous materials release by: 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: 4

20c. State here the name and quantity of the hazardous material released, if any

21. Temperature (specify if minus): 46 °F

22. Visibility (single entry): 1. Dawn 2. Day 3. Dusk 4. Dark — Code: 4

23. Weather (single entry): 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: 1

24. Type of Equipment Consist (single entry): 1. Freight Train; 2. Passenger Train-Pulling; 3. Commuter Train-Pulling; 4. Work Train; 5. Single Car; 6. Cut of cars; 7. Yard/Switching; 8. Light loco(s); 9. Maint./inspect. car; A. Spec. MoW Equip.; B. Passenger Train-Pushing; C. Commuter Train-Pushing; D. EMU; E. DMU — Code: B

25. Track Type Used by Rail Equipment Involved: 1. Main 2. Yard 3. Siding 4. Industry — Code: 1

26. Track Number or Name: TRACK 1

27. FRA Track Class (1-9,X): 4

28. Number of Locomotive Units: 1

29. Number of Cars: 13

30. Consist Speed (Recorded speed if available): R. Recorded; E. Estimated — 35 mph — Code: R

31. Time Table Direction: 1. North 3. East 2. South 4. West — Code: 2

32. Type of Crossing Warning: 1. Gates; 2. Cantilever FLS; 3. Standard FLS; 4. Wig wags; 5. Hwy. traffic signals; 6. Audible; 7. Crossbucks; 8. Stop signs; 9. Watchman; 10. Flagged by crew; 11. Other (specify); 12. None

Code(s): 01 03 06 07

33. Signaled Crossing Warning (See reverse side for instructions and codes) — Code: 1

34. Roadway Conditions: A. Dry; B. Wet; C.Snow/Slush; D.Ice; E. Sand,Mud,Dirt,Oil,Gravel; F.Water (Standing, Moving) — Code: A

35. Location of Warning: 1. Both Sides; 2. Side of Vehicle Approach; 3. Opposite Side of Vehicle Approach — Code: 1

36. Crossing Warning Interconnected with Highway Signals: 1. Yes 2. No 3. Unknown — Code: 2

37. Crossing Illuminated by Street Lights or Special Lights: 1. Yes 2. No 3. Unknown — Code: 2

38. Highway User's Age: 23

39. Highway User's Gender: 1. Male 2. Female — Code: 1

40. Highway User Went Behind or in Front of Train and Struck or was Struck by Second Train: 1. Yes 2. No 3. Unknown — Code:

41. Highway User: 1. Went around the gate; 2. Stopped and then proceeded; 3. Did not stop; 4. Stopped on crossing; 5. Other (specify); 6. Went around/thru temporary barricade (if yes, see instructions); 7. Went thru the gate; 8. Suicide/Attempted suicide — Code: 1

42. Driver Passed Standing Highway Vehicle: 1. Yes 2. No 3. Unknown — Code:

43. View of Track Obscured by (primary obstruction): 1. Permanent Structure; 2. Standing railroad equipment; 3. Passing Train; 4. Topography; 5. Vegetation; 6. Highway Vehicles; 7. Other (specify); 8. Not Obstructed — Code: 8

Casualties to:	Killed	Injured
46. Highway-Rail Crossing Users	0	1
49. Railroad Employees	0	0
52. Passengers on Train	0	0

44. Driver was: 1. Killed 2. Injured 3. Uninjured

45. Was Driver in the Vehicle? 1. Yes 2. No — Code:

47. Highway Vehicle Property Damage (est. dollar damage): $0

48. Total Number of Vehicle Occupants (including driver): 0

50. Total Number of People on Train (include passengers and train crew): 44

51. Is a Rail Equipment Accident / Incident Report Being Filed 1. Yes 2. No — Code: 2

53a. Special Study Block — Video Taken? ☑ Yes ☐ No; Video Used? ☐ Yes ☑ No

53b. Special Study Block

54. Narrative Description (Be specific, and continue on separate sheet if necessary)

GRADE CROSSING: AT APPROXIMATELY 6:20PM-PT, ON TUESDAY, NOVEMBER 15TH, 2022, TRAIN 505(15), OPERATING SOUTHBOUND ON MAIN TRACK #2 STRUCK A PEDESTRIAN AT SE SALMON STREET IN PORTLAND (DOT 754-552X)MP 769.43THE PEDESTRIAN FLED THE SCENE - EMERGENCY SERVICES LOCATED THE PERSON 2 BLOCKS FROM THE SCENE, MEDICAL CONDITION WAS NOT REPORTED.

55. Typed Name and Title | 56. Signature | 57. Date

NOTE: This report is part of the reporting railroad's accident report pursuant to the accident reports statute and, as such shall not "be admitted as evidence or used for any purpose in any suit or action for damages growing out of any matter mentioned in said report...." 49 U.S.C. 20903. See 49 C.F.R. 225.7 (b).

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION (FRA)

HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

1.Name of Reporting Railroad: Amtrak (National Railroad Passenger Corporation) [ATK]	1a. Alphabetic Code: ATK	1b. Railroad Accident/Incident No.: 165355
2.Name of Other Railroad or Other Entity Filling for Equipment Involved in Train Accident/Incident	2a. Alphabetic Code:	2b. Railroad Accident/Incident No.:
3. Name of Railroad or Other Entity Responsible for Track Maintenance (single entry): Union Pacific Railroad Company [UP]	3a. Alphabetic Code: UP	3b. Railroad Accident/Incident No.: XXX
4. U.S. DOT Grade Crossing ID No.: 754552X	5. Date of Accident/Incident (month/day/year): 09/09/2020	6. Time of Accident/Incident: 7:20 AM ☐ PM ☑
7. Nearest Railroad Station: PORTLAND	8. Subdivision: BROOKLYN	9. County: MULTNOMAH
10. State: Abbr. OR — Code: 41		
11. City (if in a city): PORTLAND	12. Highway Name or No.: SE SALMON ST	Public ☑ Private ☐

Highway User Involved

13. Type — Code: K
C. Truck-trailer; F. Bus; J. Other Motor Vehicle; A. Auto; D. Pick-up truck; G. School Bus; K. Pedestrian; B. Truck; E. Van; H. Motorcycle; M. Other (specify)

14. Vehicle Speed (est. mph at impact): 0

15. Direction (geographical) — Code: 1
1. North 2. South 3. East 4. West

16. Position — Code: 2
1. Stalled or stuck on crossing; 2. Stopped on Crossing; 3. Moving over crossing; 4. Trapped on crossing by traffic; 5. Blocked on crossing by gates

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — Code: 4
1. Highway User 2. Rail Equipment 3. Both 4. Neither

Rail Equipment Involved

17. Equipment — Code: 2
1. Train (units pulling); 2. Train (units pushing); 3. Train (standing); 4. Car(s) (moving); 5. Car(s) (standing); 6. Light loco(s) (moving); 7. Light loco(s) (standing); 8. Other (specify); A. Train pulling- RCL; B. Train pushing- RCL; C. Train standing- RCL; D. EMU Locomotive(s); E. DMU Locomotive(s)

18. Position of Car Unit in Train: 1

19. Circumstance — Code: 1
1. Rail equipment struck highway user 2. Rail equipment struck by highway user

20b. Was there a hazardous materials release by — Code: 4
1. Highway User 2. Rail Equipment 3. Both 4. Neither

20c. State here the name and quantity of the hazardous material released, if any

21. Temperature (specify if minus): 84 °F

22. Visibility (single entry) — Code: 3
1. Dawn 2. Day 3. Dusk 4. Dark

23. Weather (single entry) — Code: 2
1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow

24. Type of Equipment Consist (single entry) — Code: B
1. Freight Train; 2. Passenger Train-Pulling; 3. Commuter Train-Pulling; 4. Work Train; 5. Single Car; 6. Cut of cars; 7. Yard/Switching; 8. Light loco(s); 9. Maint./inspect. car; A. Spec. MoW Equip.; B. Passenger Train-Pushing; C. Commuter Train-Pushing; D. EMU; E. DMU

25. Track Type Used by Rail Equipment Involved — Code: 1
1. Main 2. Yard 3. Siding 4. Industry

26. Track Number or Name: MAIN TRACK 1

27. FRA Track Class (1-9,X): 3

28. Number of Locomotive Units: 1

29. Number of Cars: 6

30. Consist Speed (Recorded speed if available) — Code: R
R. Recorded; E. Estimated: 33 mph

31. Time Table Direction — Code: 2
1. North 3. East 2. South 4. West

32. Type of Crossing Warning — Code(s): 01 03 06 07
1. Gates; 2. Cantilever FLS; 3. Standard FLS; 4. Wig wags; 5. Hwy. traffic signals; 6. Audible; 7. Crossbucks; 8. Stop signs; 9. Watchman; 10. Flagged by crew; 11. Other (specify); 12. None

33. Signaled Crossing Warning (See reverse side for instructions and codes) — Code: 1

34. Roadway Conditions — Code: A
A. Dry; B. Wet; C.Snow/Slush; D.Ice; E. Sand,Mud,Dirt,Oil,Gravel; F.Water (Standing, Moving)

35. Location of Warning — Code: 1
1. Both Sides; 2. Side of Vehicle Approach; 3. Opposite Side of Vehicle Approach

36. Crossing Warning Interconnected with Highway Signals — Code: 2
1. Yes 2. No 3. Unknown

37. Crossing Illuminated by Street Lights or Special Lights — Code: 2
1. Yes 2. No 3. Unknown

38. Highway User's Age: 44

39. Highway User's Gender — Code: 2
1. Male 2. Female

40. Highway User Went Behind or in Front of Train and Struck or was Struck by Second Train — Code: 2
1. Yes 2. No 3. Unknown

41. Highway User — Code: 8
1. Went around the gate; 2. Stopped and then proceeded; 3. Did not stop; 4. Stopped on crossing; 5. Other (specify); 6. Went around/thru temporary barricade (if yes, see instructions); 7. Went thru the gate; 8. Suicide/Attempted suicide

42. Driver Passed Standing Highway Vehicle — Code:
1. Yes 2. No 3. Unknown

43. View of Track Obscured by (primary obstruction) — Code: 8
1. Permanent Structure; 2. Standing railroad equipment; 3. Passing Train; 4. Topography; 5. Vegetation; 6. Highway Vehicles; 7. Other (specify); 8. Not Obstructed

Casualties to:	Killed	Injured
46. Highway-Rail Crossing Users	1	0
49. Railroad Employees	0	0
52. Passengers on Train	0	0

44. Driver was: 1. Killed 2. Injured 3. Uninjured

45. Was Driver in the Vehicle? — Code:
1. Yes 2. No

47. Highway Vehicle Property Damage (est. dollar damage): $0

48. Total Number of Vehicle Occupants (including driver): 0

50. Total Number of People on Train (include passengers and train crew): 22

51. Is a Rail Equipment Accident / Incident Report Being Filed — Code: 2
1. Yes 2. No

53a. Special Study Block — Video Taken? ☑ Yes ☐ No; Video Used? ☐ Yes ☑ No

53b. Special Study Block

54. Narrative Description (Be specific, and continue on separate sheet if necessary)
GRADE CROSSING: TRAIN 505(09) OPERATING WITH CAB CAR/90253 AND 5 CARS STRUCK AND FATALLY INJURED A PEDESTRIAN AT SE SALMON STREET IN EAST PORTLAND.

55. Typed Name and Title	56. Signature	57. Date

NOTE: This report is part of the reporting railroad's accident report pursuant to the accident reports statute and, as such shall not "be admitted as evidence or used for any purpose in any suit or action for damages growing out of any matter mentioned in said report...." 49 U.S.C. 20903. See 49 C.F.R. 225.7 (b).

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION (FRA)

HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

Name Of		Alphabetic Code	RR Accident/Incident No.
1. Reporting Railroad	Union Pacific Railroad Company [UP]	1a. UP	1b. 1298PD011
2. Other Railroad Involved in Train Accident/Incident		2a.	2b.
3. Railroad Responsible for Track Maintenance	Union Pacific Railroad Company [UP]	3a. UP	3b. 1298PD011

4. U.S. DOT-AAR Grade Crossing ID No.	5. Date of Accident/Incident	6. Time of Accident/Incident
754542S	12/09/98	08:55 PM

7. Nearest Railroad Station	8. Division	9. County	10. State Abbr.	Code
PORTLAND	PORTLAND	MULTNOMAH	41	OR

11. City (if in a city)	12. Highway Name or No.	
PORTLAND	STARK STREET	☑ Public ☐ Private

Highway User Involved

13. Type — A. Auto, B. Truck, C. Truck-trailer, D. Pick-up truck, E. Van, F. Bus, G. School Bus, H. Motorcycle, J. Other Motor Vehicle, K. Pedestrian, M. Other (specify) — Code: D

14. Vehicle Speed (est. mph at impact): 5

15. Direction (geographical) — 1. North 2. South 3. East 4. West — Code: 1

16. Position — 1. Stalled on crossing, 2. Stopped on Crossing, 3. Moving over crossing, 4. Trapped — Code: 3

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: 4

Rail Equipment Involved

17. Equipment — 1. Train (units pulling), 2. Train (units pushing), 3. Train (standing), 4. Car(s) (moving), 5. Car(s) (standing), 6. Light loco(s) (moving), 7. Light loco(s) (standing), 8. Other (specify), A. Train pulling- RCL, B. Train pushing- RCL, C. Train standing- RCL — Code: 1

18. Position of Car Unit in Train: 12

19. Circumstance — 1. Rail equipment struck highway user, 2. Rail equipment struck by highway user — Code: 2

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: 4

20c. State the name and quantity of the hazardous material released, if any

21. Temperature (specify if minus): 40 °F

22. Visibility (single entry) — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: 4

23. Weather (single entry) — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: 1

24. Type of Equipment Consist (single entry) — 1. Freight train, 2. Passenger train, 3. Commuter train, 4. Work train, 5. Single car, 6. Cut of cars, 7. Yard/Switching, 8. Light loco(s), 9. Main./inspect. car, A. Spec. MoW Equip. — Code: 1

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: 1

26. Track Number or Name: EAST MAIN

27. FRA Track Class	28. Number of Locomotive Units	29. Number of Cars	30. Consist Speed (Recorded if available)	Code	31. Time Table Direction	Code
1	2	35	R. Recorded; E. Estimated 10 mph	E	1. North 2. South 3. East 4. West	3

32. Type of Crossing Warning — 1. Gates, 2. Cantilever FLS, 3. Standard FLS, 4. Wig wags, 5. Hwy. traffic signals, 6. Audible, 7. Crossbucks, 8. Stop signs, 9. Watchman, 10. Flagged by crew, 11. Other (specify), 12. None

Code(s): 01, 08

33. Signaled Crossing Warning: Allgd. warn > 60 sec (2);

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code: 2

35. Location of Warning — 1. Both Sides, 2. Side of Vehicle Approach, 3. Opposite Side of Vehicle Approach — Code: 1

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: 2

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: 1

38. Driver's Age: 26

39. Driver's Gender — 1. Male, 2. Female — Code: 1

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code: 2

41. Driver — 1. Drove around or thru the gate, 2. Stopped and then proceeded, 3. Did not stop, 4. Stopped on crossing, 5. Other (specify) — Code: 1

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: 2

43. View of Track Obscured by (primary obstruction) — 1. Permanent Structure, 2. Standing railroad equipment, 3. Passing Train, 4. Topography, 5. Vegetation, 6. Highway Vehicles, 7. Other (specify), 8. Not Obstructed — Code: 8

Casualties to:	Killed	Injured
46. Highway-Rail Crossing Users	0	0
49. Railroad Employees	0	0
52. Passengers on Train	0	0

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: 3

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: 1

47. Highway Vehicle Property Damage (est. dollar damage): $1,000

48. Total Number of Highway-Rail Crossing Users (include driver): 1

50. Total Number of People on Train (include passengers and crew): 2

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: 2

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

55. Typed Name and Title	56. Signature	57. Date

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

SECTION 6: ESTIMATED TRIP GENERATION

Max Attendees	3500		
		Attendees - one way	
	Mode Split	People Trips	Total Trips
Transit	13%	455	455
Walking	2%	70	70
Biking or E-scooter	5%	175	175
Private Vehicles	50%	1750	761
Ride Hailing Vehicles	30%	1050	457
	100%	3500	1917

3.5% bike; 1.5% e-scooter

Ride hail trips enter/exit during both pre and post event peaks

Entering trips
Exiting trips

	Attendees			**Attendees**		
	Pre-event peak- Arrival Trips			**Post-event peak- Departure Trips**		
	6-7 p.m.	**7-8 p.m.**	**8-9 p.m.**	**10-11 p.m.**	**11 p.m. -12 a.m.**	**12-1 a.m.**
Attendee Arrival/Departure Rate	**35%**	**55%**	**10%**	**12%**	**83%**	**5%**
Total People Trips	**1,225**	**1,925**	**350**	**420**	**2,905**	**175**
Transit	159	250	46	55	378	23
Walking	25	39	7	8	58	4
Biking or E-scooter	61	96	18	21	145	9
Private Vehicles	613	963	175	210	1,453	88
Ride Hailing Vehicles	368	578	105	126	872	53
	1,225	**1,925**	**350**	**420**	**2,905**	**175**
Total Attendee Trips						
Transit	159	250	46	55	378	23
Walking	25	39	7	8	58	4
Biking or E-scooter	61	96	18	21	145	9
Private Vehicles	266	418	76	91	632	38
Ride Hailing Vehicles	160	251	46	55	379	23
Total Attendee Trips	**671**	**1,055**	**192**	**230**	**1,591**	**96**

RH trips both in/out for each period

	Pre-Event Peak Hour (7:00 p.m. – 8:00 p.m.)			**Post-Event Peak Hour (11:00 p.m. – 12:00 a.m.)**		
	In	**Out**	**Total**	**In**	**Out**	**Total**
Attendees Arriving/Departing	1,925	0	1,925	0	2,905	2,905
Employees Arriving/Departing	0	10	10	0	70	70
	1,925	10	1,935	0	2,975	2,975
Total Attendee Trips	**1,055**	**251**	**1,306**	**379**	**1,591**	**1,970**
Transit Trips	*250*	*0*	*250*	*0*	*378*	*378*
Walking Trips	*39*	*0*	*39*	*0*	*58*	*58*
Biking or E-Scooter Trips	*96*	*0*	*96*	*0*	*145*	*145*
Private Vehicle Trips	*418*	*0*	*418*	*0*	*632*	*632*
Ride Hailing Vehicle Trips	*251*	*251*	*502*	*379*	*379*	*758*
Total Employee Trips	**3**	**9**	**12**	**19**	**65**	**84**
Transit Trips	*0*	*1*	*1*	*0*	*9*	*9*
Walking Trips	*0*	*0*	*0*	*0*	*1*	*1*
Biking or E-Scooter Trips	*0*	*1*	*1*	*0*	*4*	*4*
Private Vehicle Trips	*0*	*5*	*5*	*0*	*32*	*32*
Ride Hailing Vehicle Trips	*3*	*3*	*5*	*19*	*19*	*38*
Total Trips (Attendee and Employee)	**1,057**	**260**	**1,318**	**398**	**1,656**	**2,054**
Transit Trips	*250*	*1*	*252*	*0*	*387*	*387*
Walking Trips	*39*	*0*	*39*	*0*	*60*	*60*
Biking or E-Scooter Trips	*96*	*1*	*97*	*0*	*149*	*149*
Private Vehicle Trips	*418*	*5*	*423*	*0*	*663*	*663*
Ride Hailing Vehicle Trips	*254*	*254*	*508*	*398*	*398*	*796*

Sold-Out Event Employees		Shifts
Venue Staff	150	140 Arrive by 6pm for 5-6 hour shift, depart after 11pm; 10 management staff work daily 10a.m.-7p.m.
Non-Venue Staff	200	
	350	

		Employees - one way	
	Mode Split	People Trips	Total Trips
Transit	13%	46	46
Walking	2%	7	7
Biking or E-scooter	5%	18	18
Private Vehicles	50%	175	159
Ride Hailing Vehicles	30%	105	95
	100%	350	325

3.5% bike; 1.5% e-scooter

Ride hail trips enter/exit during both pre and post event peaks

Entering trips
Exiting trips

	Employees				**Employees**		
		Pre-event peak			**Post-event peak**		
	10-11am	**6-7 p.m.**	**7-8 p.m.**	**8-9 p.m.**	**10-11 p.m.**	**p.m. -12 a.**	**12-1 a.m.**
Arrival Rate Total Ven Employees	10	140					
Departure Rate Total Ven Employees			10			70	70
Non LVN Staff		200					200
Transit	1	44	1	0	0	9	35
Walking	0	7	0	0	0	1	5
Biking or E-scooter	1	17	1	0	0	4	14
Private Vehicles	5	170	5	0	0	35	135
Ride Hailing Vehicles	3	102	3	0	0	21	81
	10	**340**	**10**	**0**	**0**	**70**	**270**
Total Employee Trips							
Transit	1	44	1	0	0	9	35
Walking	0	7	0	0	0	1	5
Biking or E-scooter	1	17	1	0	0	4	14
Private Vehicles	5	155	5	0	0	32	123
Ride Hailing Vehicles	3	93	3	0	0	19	74
Total Attendee Trips	**9**	**315**	**9**	**0**	**0**	**65**	**250**

140
150
400

RH trips both in/out for each period

	People Trips	Total Trips
Transit	501	501
Walking	77	77
Biking	135	135
E-scooter	58	58
Private Vehicles	1925	920
Ride Hailing Vehicles	1155	552
	3850	2242
Non-Vehicular	**770**	**770**
Vehicular	**3,080**	**1,472**

	People Trips		
	Attendees	**Employees**	**Att+Emp**
Biking	123	12	135
E-scooter	53	5	58
Biking + E-scooter	**175**	**18**	**193**

bike parking	135
Attendees	123
Employees	12

	Pre-Event Peak Hour			**Post-Event Peak Hour**		
	In	**Out**	**Total**	**In**	**Out**	**Total**
bike (3.5%)	67	0	68	0	104	104
e-scooter (1.5%)	29	0	29	0	45	45
	96	1	97	0	149	149

SECTION 7: ESTIMATED VEHICULAR TRIP DISTRIBUTION

Vehicular Trip Distribution			**Pre-Event Peak Hour**			**Post-Event Peak Hour**		
			In	Out		In	Out	
		Private Vehicle Trips	418	5		0	663	
		Ride Hailing Vehicle Trips	254	254		398	398	
			672	**258**		**398**	**1,061**	
Private Vehicles Parking on east side of river (90%)			377	4		0	597	
Private Vehicles Parking on west side of river (10%)			41	1		0	66	
			418	**5**		**0**	**663**	
			Private Vehicles			**Private Vehicles**		
Trip Distribution	**In**	**Out**	**In**	**Out**		**In**	**Out**	Notes
North (SE Martin Luther King Jr Boulevard or SE Grand Avenue)	**15%**	**23%**	**63**	**1**		**0**	**153**	
North (I-5)	**15%**	**7%**	**63**	**0**		**0**	**46**	2.5% park on west side
Parked on east side	*12.5%*	*4.5%*	*52*	*0*		*0*	*30*	in/out
Parked on west side	*2.5%*	*2.5%*	*10*	*0*		*0*	*17*	
South (I-5)	**20%**	**0.0%**	**84**	**0**		**0**	**0**	2.5% park on west side (inbound); outbound included on Hawthorne Bridge
Parked on east side	*17.5%*	*0.0%*	*73*	*0*		*0*	*0*	
Parked on west side	*2.5%*	*0.0%*	*10*	*0*		*0*	*0*	
West (Hawthorne Bridge)	**10%**	**30%**	**42**	**1**		**0**	**199**	2.5% park on west side; 5% outbound
Parked on east side	*7.5%*	*25.0%*	*31*	*1*		*0*	*166*	
Parked on west side	*2.5%*	*5.0%*	*10*	*0*		*0*	*33*	
West (Morrison Bridge)	**5%**	**5%**	**21**	**0**		**0**	**33**	2.5% park on west side out
Parked on east side	*2.5%*	*2.5%*	*10*	*0*		*0*	*17*	
Parked on west side	*2.5%*	*2.5%*	*10*	*0*		*0*	*17*	
East (SE Stark Street)	**2%**	**2%**	**8**	**0**		**0**	**13**	
East (SE Morrison Street or SE Madison Street)	**13%**	**13%**	**54**	**1**		**0**	**86**	in/out
South (OR 99E, SE Division Street or SE Powell Boulevard)	**20%**	**20%**	**84**	**1**		**0**	**133**	in/out
	100%	**100%**	**418**	**5**		**0**	**663**	
			Ride Hailing Vehicles			**Ride Hailing Vehicles**		
Trip Distribution	**In**	**Out**	**In**	**Out**		**In**	**Out**	
North (SE Martin Luther King Jr Boulevard or SE Grand Avenue)	15%	23%	38	58		60	92	
North (I-5)	15%	7%	38	18		60	28	
South (I-5)	20%	0%	51	0		80	0	
West (Hawthorne Bridge)	10%	30%	25	76		40	119	
West (Morrison Bridge)	5%	5%	13	13		20	20	
East (SE Stark Street)	2%	2%	5	5		8	8	
East (SE Morrison Street or SE Madison Street)	13%	13%	33	33		52	52	
South (OR 99E, SE Division Street or SE Powell Boulevard)	20%	20%	51	51		80	80	
	100%	**100%**	**254**	**254**		**398**	**398**	

SECTION 8: ESTIMATED BIKE TRIP DISTRIBUTION

Bike Trip Distribution			Pre-Event Peak Hour			Post-Event Peak Hour		
			In	Out		In	Out	
		Biking Trips	67	0		0	104	
			67	**0**		**0**	**104**	
			Bikes			**Bikes**		
Trip Distribution	**In**	**Out**	**In**	**Out**		**In**	**Out**	Notes
North (SE Martin Luther King Jr Boulevard or SE Grand Avenue)	**15%**	**15%**	**10**	**0**		**0**	**16**	Route via SE Water
North (I-5)	**15%**	**15%**	**10**	**0**		**0**	**16**	Route via Eastbank Esplanade
Parked on east side	*15.0%*	*15.0%*	*10*	*0*		*0*	*16*	
Parked on west side	*0.0%*	*0.0%*	*0*	*0*		*0*	*0*	
South (I-5)	**20%**	**20.0%**	**13**	**0**		**0**	**21**	Route via Eastbank Esplanade
Parked on east side	*20.0%*	*20.0%*	*13*	*0*		*0*	*21*	
Parked on west side	*0.0%*	*0.0%*	*0*	*0*		*0*	*0*	
West (Hawthorne Bridge)	**10%**	**10%**	**7**	**0**		**0**	**10**	Route via Eastbank Esplanade
Parked on east side	*10.0%*	*10.0%*	*7*	*0*		*0*	*10*	
Parked on west side	*0.0%*	*0.0%*	*0*	*0*		*0*	*0*	
West (Morrison Bridge)	**5%**	**5%**	**3**	**0**		**0**	**5**	Route via SE Water to Morrison Bridge
Parked on east side	*5.0%*	*5.0%*	*3*	*0*		*0*	*5*	
Parked on west side	*0.0%*	*0.0%*	*0*	*0*		*0*	*0*	
East (SE Stark Street)	**2%**	**2%**	**1**	**0**		**0**	**2**	Route via SE Salmon
East (SE Morrison Street or SE Madison Street)	**13%**	**13%**	**9**	**0**		**0**	**14**	Route via SE Salmon
South (OR 99E, SE Division Street or SE Powell Boulevard)	**20%**	**20%**	**13**	**0**		**0**	**21**	Route via Eastbank Esplanade
	100%	**100%**	**67**	**0**		**0**	**104**	
Bike Routes			**In**	**Out**		**In**	**Out**	
Route via SE Water	**15%**	**15%**	**10**	**0**		**0**	**16**	
Route via Eastbank Esplanade	**65%**	**65%**	**44**	**0**		**0**	**68**	
Route via SE Water to Morrison Bridge	**5%**	**5%**	**3**	**0**		**0**	**5**	
Route via SE Salmon	**15%**	**15%**	**10**	**0**		**0**	**16**	
	100%	**100%**	**67**	**0**		**0**	**104**	

			Pre-Event Period			Post-Event Period		
			In	Out		In	Out	
		Biking Trips	135				135	
			135	**0**		**0**	**135**	
			Bikes			**Bikes**		
Trip Distribution	**In**	**Out**	**In**	**Out**		**In**	**Out**	Notes
North (SE Martin Luther King Jr Boulevard or SE Grand Avenue)	**15%**	**15%**	**20**	**0**		**0**	**20**	Route via SE Water
North (I-5)	**15%**	**15%**	**20**	**0**		**0**	**20**	Route via Eastbank Esplanade
Parked on east side	*15.0%*	*15.0%*	*20*	*0*		*0*	*20*	
Parked on west side	*0.0%*	*0.0%*	*0*	*0*		*0*	*0*	
South (I-5)	**20%**	**20.0%**	**27**	**0**		**0**	**27**	Route via Eastbank Esplanade
Parked on east side	*20.0%*	*20.0%*	*27*	*0*		*0*	*27*	
Parked on west side	*0.0%*	*0.0%*	*0*	*0*		*0*	*0*	
West (Hawthorne Bridge)	**10%**	**10%**	**13**	**0**		**0**	**13**	Route via Eastbank Esplanade
Parked on east side	*10.0%*	*10.0%*	*13*	*0*		*0*	*13*	
Parked on west side	*0.0%*	*0.0%*	*0*	*0*		*0*	*0*	
West (Morrison Bridge)	**5%**	**5%**	**7**	**0**		**0**	**7**	Route via SE Water to Morrison Bridge
Parked on east side	*5.0%*	*5.0%*	*7*	*0*		*0*	*7*	
Parked on west side	*0.0%*	*0.0%*	*0*	*0*		*0*	*0*	
East (SE Stark Street)	**2%**	**2%**	**3**	**0**		**0**	**3**	Route via SE Salmon
East (SE Morrison Street or SE Madison Street)	**13%**	**13%**	**18**	**0**		**0**	**18**	Route via SE Salmon
South (OR 99E, SE Division Street or SE Powell Boulevard)	**20%**	**20%**	**27**	**0**		**0**	**27**	Route via Eastbank Esplanade
	100%	**100%**	**135**	**0**		**0**	**135**	
Bike Routes			**In**	**Out**		**In**	**Out**	
Route via SE Water	**15%**	**15%**	**20**	**0**		**0**	**20**	
Route via Eastbank Esplanade	**65%**	**65%**	**88**	**0**		**0**	**88**	
Route via SE Water to Morrison Bridge	**5%**	**5%**	**7**	**0**		**0**	**7**	
Route via SE Salmon	**15%**	**15%**	**20**	**0**		**0**	**20**	
	100%	**100%**	**135**	**0**		**0**	**135**	

27 0 0

SECTION 9: EXISTING PARKING OCCUPANCY

		Weekday	Weekday	Weekday	Weekday	Weekday	Weekend	Weekend	Weekend	Weekend	Weekend
Block	Total Parking	6 p.m.-7 p.m.	7 p.m.-8 p.m.	8 p.m.-9 p.m.	9 p.m.-10 p.m.	10 p.m.-11 p.m.	6 p.m.-7 p.m.	7 p.m.-8 p.m.	8 p.m.-9 p.m.	9 p.m.-10 p.m.	10 p.m.-11 p.m.
1	34	3	1	2	2	3	5	5	3	5	
2	45	0	0	0	0	0	5	1	0	1	
3	18	0	0	0	0	0	1	0	0	0	
4	26	2	2	1	2	2	5	4	7	3	
5	35	0	0	0	0	0	0	0	0	0	
6	19	15	12	6	2	3	5	6	5	1	
7	25	9	9	7	5	5	3	3	6	2	
8	40	11	10	7	7	7	3	3	4	3	
9	21	0	0	0	0	0	0	0	5	0	
10	11	0	0	2	1	1	0	0	0	1	
11	21	0	1	1	0	0	0	0	0	0	
12	29	10	9	9	12	7	14	10	11	8	
13	29	16	16	17	18	16	24	22	19	14	
14	16	6	6	11	10	10	10	10	8	9	
15	17	8	7	7	5	5	4	2	2	4	
16	34	13	12	15	13	11	2	1	1	1	
17	19	14	10	7	6	6	3	3	2	1	
18	15	16	9	9	0	0	6	4	1	1	
19	50	9	9	6	3	3	2	3	1	3	
20	28	12	10	4	1	1	5	5	4	4	
21	43	15	15	14	6	5	11	12	11	3	
22	22	12	12	7	4	0	5	10	7	3	
23	17	13	9	8	6	6	6	9	6	5	
24	26	4	4	7	2	2	6	3	5	5	
25	30	10	10	10	10	6	6	3	2	1	
26	30	17	18	15	12	6	18	15	7	6	
27	30	16	12	12	11	11	11	11	8	7	
28	26	17	17	12	7	7	7	4	13	7	
29	20	5	5	7	4	3	3	9	6	2	
30	15	1	1	1	2	1	2	0	0	0	
31	17	0	0	0	0	0	0	0	0	0	
32	31	9	4	6	6	6	1	0	0	0	
33	30	19	17	20	16	11	6	2	1	0	
34	5	5	5	1	1	1	2	2	0	2	
35	26	14	6	6	5	0	4	2	3	1	
36	40	9	8	9	9	8	2	3	4	2	
37	29	10	11	11	6	4	0	1	1	2	
38	21	6	6	6	6	6	8	1	1	1	
39	17	1	1	1	1	1	2	1	1	2	
40	27	0	0	0	0	0	3	1	1	0	
41	26	2	2	0	0	0	0	1	0	1	
42	19	13	10	10	4	4	4	3	3	3	
43	2	1	1	1	0	1	0	0	0	0	
44	3	0	0	0	0	0	0	0	0	0	
	1084	343	297	275	205	169	204	175	159	114	

		Weekday	Weekday	Weekday	Weekday	Weekday	Weekend	Weekend	Weekend	Weekend	Weekend
Block	Total Parking	6 p.m.-7 p.m.	7 p.m.-8 p.m.	8 p.m.-9 p.m.	9 p.m.-10 p.m.	10 p.m.-11 p.m.	6 p.m.-7 p.m.	7 p.m.-8 p.m.	8 p.m.-9 p.m.	9 p.m.-10 p.m.	10 p.m.-11 p.m.
1	34	9%	3%	6%	6%	9%	15%	15%	9%	15%	
2	45	0%	0%	0%	0%	0%	11%	2%	0%	2%	
3	18	0%	0%	0%	0%	0%	6%	0%	0%	0%	
4	26	8%	8%	4%	8%	8%	19%	15%	27%	12%	
5	35	0%	0%	0%	0%	0%	0%	0%	0%	0%	
6	19	79%	63%	32%	11%	16%	26%	32%	26%	5%	
7	25	36%	36%	28%	20%	20%	12%	12%	24%	8%	
8	40	28%	25%	18%	18%	18%	8%	8%	10%	8%	
9	21	0%	0%	0%	0%	0%	0%	0%	24%	0%	
10	11	0%	0%	18%	9%	9%	0%	0%	0%	9%	
11	21	0%	5%	5%	0%	0%	0%	0%	0%	0%	
12	29	34%	31%	31%	41%	24%	48%	34%	38%	28%	
13	29	55%	55%	59%	62%	55%	83%	76%	66%	48%	
14	16	38%	38%	69%	63%	63%	63%	63%	50%	56%	
15	17	47%	41%	41%	29%	29%	24%	12%	12%	24%	
16	34	38%	35%	44%	38%	32%	6%	3%	3%	3%	
17	19	74%	53%	37%	32%	32%	16%	16%	11%	5%	
18	15	107%	60%	60%	0%	0%	40%	27%	7%	7%	
19	50	18%	18%	12%	6%	6%	4%	6%	2%	6%	
20	28	43%	36%	14%	4%	4%	18%	18%	14%	14%	
21	43	35%	35%	33%	14%	12%	26%	28%	26%	7%	
22	22	55%	55%	32%	18%	0%	23%	45%	32%	14%	
23	17	76%	53%	47%	35%	35%	35%	53%	35%	29%	
24	26	15%	15%	27%	8%	8%	23%	12%	19%	19%	
25	30	33%	33%	33%	33%	20%	20%	10%	7%	3%	
26	30	57%	60%	50%	40%	20%	60%	50%	23%	20%	
27	30	53%	40%	40%	37%	37%	37%	37%	27%	23%	
28	26	65%	65%	46%	27%	27%	27%	15%	50%	27%	
29	20	25%	25%	35%	20%	15%	15%	45%	30%	10%	
30	15	7%	7%	7%	13%	7%	13%	0%	0%	0%	
31	17	0%	0%	0%	0%	0%	0%	0%	0%	0%	
32	31	29%	13%	19%	19%	19%	3%	0%	0%	0%	
33	30	63%	57%	67%	53%	37%	20%	7%	3%	0%	
34	5	100%	100%	20%	20%	20%	40%	40%	0%	40%	
35	26	54%	23%	23%	19%	0%	15%	8%	12%	4%	
36	40	23%	20%	23%	23%	20%	5%	8%	10%	5%	
37	29	34%	38%	38%	21%	14%	0%	3%	3%	7%	
38	21	29%	29%	29%	29%	29%	38%	5%	5%	5%	
39	17	6%	6%	6%	6%	6%	12%	6%	6%	12%	
40	27	0%	0%	0%	0%	0%	11%	4%	4%	0%	
41	26	8%	8%	0%	0%	0%	0%	4%	0%	4%	
42	19	68%	53%	53%	21%	21%	21%	16%	16%	16%	
43	2	50%	50%	50%	0%	50%	0%	0%	0%	0%	
44	3	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	1084	32%	27%	25%	19%	16%	19%	16%	15%	11%	

		Weekday	Weekday	Weekday	Weekday	Weekday	Weekend	Weekend	Weekend	Weekend	Weekend
	Total Parking	6 p.m.-7 p.m.	7 p.m.-8 p.m.	8 p.m.-9 p.m.	9 p.m.-10 p.m.	10 p.m.-11 p.m.	6 p.m.-7 p.m.	7 p.m.-8 p.m.	8 p.m.-9 p.m.	9 p.m.-10 p.m.	10 p.m.-11 p.m.
	1084	343	297	275	205	169	204	175	159	114	0
SE Morrison Street to SE Yamhill Street	274	40	34	25	19	21	27	22	30	16	0
SE Yamhill Street to SE Salmon Street	294	119	112	102	74	53	87	86	76	47	0
SE Salmon Street to SE Madison Street	301	123	101	103	80	70	65	52	39	37	0
SE Madison Street to SE Clay Street	215	61	50	45	32	25	25	15	14	14	0
	1084	32%	27%	25%	19%	16%	19%	16%	15%	11%	0%
SE Morrison Street to SE Yamhill Street	274	15%	12%	9%	7%	8%	10%	8%	11%	6%	0%
SE Yamhill Street to SE Salmon Street	294	40%	38%	35%	25%	18%	30%	29%	26%	16%	0%
SE Salmon Street to SE Madison Street	301	41%	34%	34%	27%	23%	22%	17%	13%	12%	0%
SE Madison Street to SE Clay Street	215	28%	23%	21%	15%	12%	12%	7%	7%	7%	0%

SECTION 10: ESTIMATED PARKING DEMAND AND AVAILABILITY WITH PROPOSED VENUE

Parking for Private Vehicles	Demand	6-7 p.m.	7-8 p.m.	8-9 p.m.	
Attendees	761	266	418	76	
Staff	155	155	-5	0	
Total	915				
Staff Private Vehicles					Total
Parking on east side of river, within .25 miles of site	100%	155	-5	0	**155**
Attendees Private Vehicles		6-7 p.m.	7-8 p.m.	8-9 p.m.	Total
Parking on east side of river, within .25 miles of site	80%	213	335	61	**609**
Parking on east side of river, more than .25 miles from site	10%	27	42	8	**76**
Parking on west side of river	10%	27	42	8	**76**
	Total	**266**	**418**	**76**	**761**
Parking locations, east side of river	**763**	6-7 p.m.	7-8 p.m.	8-9 p.m.	
W of Water	25%	92	84	15	
Taylor	13.0%	48	44	8	
Salmon	0.0%	0	0	0	
Main	10.0%	37	33	6	
Madison	2.0%	7	7	1	
E of Water					
N of Yamhill	15%	55	50	9	
Yamhill to Salmon	20%	74	67	12	
Salmon to Madison	20%	74	67	12	
Madison to Clay	20%	74	67	12	

Parking for Private Vehicles	Demand	12-1 p.m.	1-2 p.m.	2-3 p.m.	
Attendees	109	38	60	11	
Staff	23	23	0	0	
Total	131				
Staff Private Vehicles					Total
Parking on east side of river, within .25 miles of site	100%	23	0	0	**23**
Attendees Private Vehicles		12-1 p.m.	1-2 p.m.	2-3 p.m.	Total
Parking on east side of river, within .25 miles of site	100%	38	60	11	**109**
Parking on east side of river, more than .25 miles from site	0%	0	0	0	**0**
Parking on west side of river	0%	0	0	0	**0**
	Total	**38**	**60**	**11**	**109**
Parking locations, east side of river	**131**	12-1 p.m.	1-2 p.m.	2-3 p.m.	
W of Water	25%	15	15	3	
Taylor	13.0%	8	8	1	
Salmon	0.0%	0	0	0	
Main	10.0%	6	6	1	
Madison	2.0%	1	1	0	
E of Water					
N of Yamhill	15%	9	9	2	
Yamhill to Salmon	20%	12	12	2	
Salmon to Madison	20%	12	12	2	
Madison to Clay	20%	12	12	2	

Available Parking	Spots			
Off-street lot on north side of Taylor	40			
Off-street lot at 2nd/Yamhill	34			
Off-street lot accessed via Taylor, west of Water	80			
Off-street lot accessed via Main, west of Water	80		12-1 p.m.	1-2 p.m.	2-3 p.m.
	234				
On Street (in surveyed area)	1,084		78%	77%	74%
Total parking	1,318				

Sold-Out Concerts		Weekday Arrival Time			Weekend Arrival Time		
	Parking Demand	6-7 p.m.	7-8 p.m.	8-9 p.m.	6-7 p.m.	7-8 p.m.	8-9 p.m.
Proposed Venue Estimated Parking Demand (Attendees and Staff)	**915**	**421**	**418**	**76**	**421**	**418**	**76**
Parking on east side of river, within .25 miles of site	763	368	335	61	368	335	61
Parking on east side of river, more than .25 miles from site	76	27	42	8	27	42	8
Parking on west side of river	76	27	42	8	27	42	8
Attendees Parking Demand	**761**	**266**	**418**	**76**	**266**	**418**	**76**
Parking on east side of river, within .25 miles of site (80%)	*609*	*213*	*335*	*61*	*213*	*335*	*61*
Parking on east side of river, more than .25 miles from site (10%)	*76*	*27*	*42*	*8*	*27*	*42*	*8*
Parking on west side of river (10%)	*76*	*27*	*42*	*8*	*27*	*42*	*8*
Staff Parking Demand	**155**	**155**	**0**	**0**	**155**	**0**	**0**
Parking on east side of river, within .25 miles of site (100%)	*155*	*155*	*0*	*0*	*155*	*0*	*0*

note 5 staff departures at 7-8 pm

Total Parking Availability within .25 miles of site		1,318	1,318	1,318	1,318	1,318	1,318
Estimated Occupancy Rate		32%	27%	24%	17%	15%	13%
Estimated Occupied Parking		419	345	311	229	188	167
Estimated Available Parking		665	739	773	855	896	917
		368	702	763	368	702	763
Estimated Occupied Parking with Proposed Venue		787	1047	1074	597	890	930
Estimated Occupancy Rate with Proposed Venue		60%	79%	82%	45%	68%	71%

note 5 staff departures at 7-8 pm

Special Event		Weekday Arrival Time		
	Parking Demand	12-1 p.m.	1-2 p.m.	2-3 p.m.
Proposed Venue Estimated Parking Demand (Attendees and Staff)	**131**	**61**	**60**	**11**
Attendees Parking Demand	109	38	60	11
Staff Parking Demand	23	23	0	0

Total Parking Availability within .25 miles of site		1,318	1,318	1,318
Estimated Occupancy Rate		78%	77%	74%
Estimated Occupied Parking		1023	1015	974
Estimated Available Parking		295	303	344
		61	121	131
Estimated Occupied Parking with Proposed Venue		1084	1135	1105
Estimated Occupancy Rate with Proposed Venue		82%	86%	84%

SECTION 11: EXISTING INTERSECTION ANALYSIS REPORTS

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	15	0	230	30	0
Future Vol, veh/h	10	15	0	230	30	0
Conflicting Peds, #/hr	14	3	22	0	0	22
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	0	1	0	0	1	0
Mvmt Flow	12	19	0	284	37	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	335	40	-	0	-	0
Stage 1	37	-	-	-	-	-
Stage 2	298	-	-	-	-	-
Critical Hdwy	6.4	6.21	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.309	-	-	-	-
Pot Cap-1 Maneuver	664	1034	0	-	-	0
Stage 1	991	-	0	-	-	0
Stage 2	758	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	664	1031	-	-	-	-
Mov Cap-2 Maneuver	664	-	-	-	-	-
Stage 1	991	-	-	-	-	-
Stage 2	758	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	844	-
HCM Lane V/C Ratio	-	0.037	-
HCM Control Delay (s)	-	9.4	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	185	85	165	10	0	15	0	30	15	10	35	0
Future Vol, veh/h	185	85	165	10	0	15	0	30	15	10	35	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	1	0	2	0	0	0	0	2	0	0	0	0
Mvmt Flow	197	90	176	11	0	16	0	32	16	11	37	0
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	10	7.6	8.2	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	0%	69%	0%	40%	22%
Vol Thru, %	67%	31%	0%	0%	78%
Vol Right, %	33%	0%	100%	60%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	45	270	165	25	45
LT Vol	0	185	0	10	10
Through Vol	30	85	0	0	35
RT Vol	15	0	165	15	0
Lane Flow Rate	48	287	176	27	48
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.065	0.402	0.194	0.033	0.067
Departure Headway (Hd)	4.854	5.043	3.981	4.414	5.063
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	741	704	886	812	710
Service Time	2.862	2.839	1.776	2.434	3.072
HCM Lane V/C Ratio	0.065	0.408	0.199	0.033	0.068
HCM Control Delay	8.2	11.3	7.8	7.6	8.4
HCM Lane LOS	A	B	A	A	A
HCM 95th-tile Q	0.2	1.9	0.7	0.1	0.2

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	5	5	5	5	0	40	5	5	120	5
Future Vol, veh/h	5	0	5	5	5	5	0	40	5	5	120	5
Conflicting Peds, #/hr	1	0	2	2	0	1	2	0	10	10	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	20	1	0
Mvmt Flow	6	0	6	6	6	6	0	47	6	6	140	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	214	220	147	220	220	61	148	0	0	63	0	0
Stage 1	157	157	-	60	60	-	-	-	-	-	-	-
Stage 2	57	63	-	160	160	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.3	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.38	-	-
Pot Cap-1 Maneuver	747	682	905	740	682	1010	1446	-	-	1432	-	-
Stage 1	850	772	-	957	849	-	-	-	-	-	-	-
Stage 2	960	846	-	847	769	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	733	670	902	724	670	999	1443	-	-	1418	-	-
Mov Cap-2 Maneuver	733	670	-	724	670	-	-	-	-	-	-	-
Stage 1	848	767	-	947	841	-	-	-	-	-	-	-
Stage 2	947	838	-	836	764	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	9.8	0	0.3
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1443	-	-	809	774	1418	-	-
HCM Lane V/C Ratio	-	-	-	0.014	0.023	0.004	-	-
HCM Control Delay (s)	0	-	-	9.5	9.8	7.5	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	5	10	5	10	0	30	10	20	105	5
Future Vol, veh/h	5	0	5	10	5	10	0	30	10	20	105	5
Conflicting Peds, #/hr	1	0	5	5	0	1	3	0	11	11	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	6	0	6	12	6	12	0	36	12	24	125	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	231	238	136	237	235	54	134	0	0	59	0	0
Stage 1	179	179	-	53	53	-	-	-	-	-	-	-
Stage 2	52	59	-	184	182	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	728	666	918	722	669	1019	1463	-	-	1558	-	-
Stage 1	827	755	-	965	855	-	-	-	-	-	-	-
Stage 2	966	850	-	822	753	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	703	646	911	697	649	1007	1459	-	-	1542	-	-
Mov Cap-2 Maneuver	703	646	-	697	649	-	-	-	-	-	-	-
Stage 1	825	740	-	955	846	-	-	-	-	-	-	-
Stage 2	947	842	-	799	738	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.6	9.8	0	1.1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1459	-	-	794	782	1542	-	-
HCM Lane V/C Ratio	-	-	-	0.015	0.038	0.015	-	-
HCM Control Delay (s)	0	-	-	9.6	9.8	7.4	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

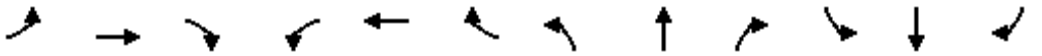
Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	5	5	0	0	0	5	20	5	15	75	40
Future Vol, veh/h	10	5	5	0	0	0	5	20	5	15	75	40
Conflicting Peds, #/hr	1	0	1	1	0	1	9	0	7	7	0	9
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	8	1	0
Mvmt Flow	14	7	7	0	0	0	7	27	7	21	103	55

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	228	237	141	167	0	0	41	0	0
Stage 1	182	182	-	-	-	-	-	-	-
Stage 2	46	55	-	-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2	4.1	-	-	4.18	-	-
Critical Hdwy Stg 1	5.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	2.2	-	-	2.272	-	-
Pot Cap-1 Maneuver	765	667	912	1423	-	-	1530	-	-
Stage 1	854	753	-	-	-	-	-	-	-
Stage 2	982	853	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	737	0	903	1411	-	-	1530	-	-
Mov Cap-2 Maneuver	737	0	-	-	-	-	-	-	-
Stage 1	842	0	-	-	-	-	-	-	-
Stage 2	959	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	1.3	0.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1411	-	-	737	903	1530	-	-
HCM Lane V/C Ratio	0.005	-	-	0.028	0.008	0.013	-	-
HCM Control Delay (s)	7.6	0	-	10	9	7.4	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	10	0	10	0	20	20	45	35	0
Future Volume (veh/h)	0	0	0	10	0	10	0	20	20	45	35	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		0.97	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1870	1900	1885	1900	0
Adj Flow Rate, veh/h				12	0	12	0	24	24	54	42	0
Peak Hour Factor				0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %				0	0	0	0	2	0	1	0	0
Cap, veh/h				151	0	131	0	589	493	630	313	0
Arrive On Green				0.08	0.00	0.08	0.00	0.31	0.31	0.31	0.31	0.00
Sat Flow, veh/h				1810	0	1569	0	1870	1564	656	994	0
Grp Volume(v), veh/h				12	0	12	0	24	24	96	0	0
Grp Sat Flow(s),veh/h/ln				1810	0	1569	0	1870	1564	1651	0	0
Q Serve(g_s), s				0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0
Cycle Q Clear(g_c), s				0.1	0.0	0.1	0.0	0.1	0.1	0.5	0.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.56		0.00
Lane Grp Cap(c), veh/h				151	0	131	0	589	493	943	0	0
V/C Ratio(X)				0.08	0.00	0.09	0.00	0.04	0.05	0.10	0.00	0.00
Avail Cap(c_a), veh/h				4897	0	4246	0	5062	4233	4686	0	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh				5.6	0.0	5.6	0.0	3.2	3.2	3.3	0.0	0.0
Incr Delay (d2), s/veh				0.3	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				5.9	0.0	6.1	0.0	3.2	3.2	3.3	0.0	0.0
LnGrp LOS				A	A	A	A	A	A	A	A	A
Approach Vol, veh/h					24			48			96	
Approach Delay, s/veh					6.0			3.2			3.3	
Approach LOS					A			A			A	

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		8.2				8.2		5.1				
Change Period (Y+Rc), s		4.0				4.0		4.0				
Max Green Setting (Gmax), s		36.0				36.0		36.0				
Max Q Clear Time (g_c+I1), s		2.1				2.5		2.1				
Green Ext Time (p_c), s		0.2				0.4		0.1				

Intersection Summary		
HCM 6th Ctrl Delay	3.7	
HCM 6th LOS	A	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	115	10	90	25	0	0	0	0	110	775	10
Future Volume (veh/h)	0	115	10	90	25	0	0	0	0	110	775	10
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00				1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1885	1900	1826	0				1900	1885	1900
Adj Flow Rate, veh/h	0	142	12	111	31	0				136	957	12
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81				0.81	0.81	0.81
Percent Heavy Veh, %	0	0	1	0	5	0				0	1	0
Cap, veh/h	0	1009	85	789	1069	0				186	1400	449
Arrive On Green	0.00	0.59	0.59	0.59	0.59	0.00				0.29	0.30	0.30
Sat Flow, veh/h	0	1722	146	1250	1826	0				619	4666	1495
Grp Volume(v), veh/h	0	0	154	111	31	0				408	685	12
Grp Sat Flow(s),veh/h/ln	0	0	1868	1250	1826	0				1854	1716	1495
Q Serve(g_s), s	0.0	0.0	2.6	3.1	0.5	0.0				13.8	12.2	0.4
Cycle Q Clear(g_c), s	0.0	0.0	2.6	5.7	0.5	0.0				13.8	12.2	0.4
Prop In Lane	0.00		0.08	1.00		0.00				0.33		1.00
Lane Grp Cap(c), veh/h	0	0	1094	789	1069	0				556	1029	449
V/C Ratio(X)	0.00	0.00	0.14	0.14	0.03	0.00				0.73	0.67	0.03
Avail Cap(c_a), veh/h	0	0	1094	789	1069	0				556	1029	449
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.92	0.96	0.96	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	6.5	7.8	6.1	0.0				22.1	21.4	17.3
Incr Delay (d2), s/veh	0.0	0.0	0.2	0.4	0.0	0.0				8.3	3.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.9	0.8	0.2	0.0				6.9	5.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	6.8	8.2	6.2	0.0				30.4	24.8	17.4
LnGrp LOS	A	A	A	A	A	A				C	C	B
Approach Vol, veh/h		154			142						1105	
Approach Delay, s/veh		6.8			7.7						26.8	
Approach LOS		A			A						C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	25.0	45.0	45.0
Change Period (Y+Rc), s	* 4.8	4.0	4.0
Max Green Setting (Gmax), s	* 20	41.0	41.0
Max Q Clear Time (g_c+I1), s	15.8	4.6	7.7
Green Ext Time (p_c), s	1.1	0.2	0.1

Intersection Summary	
HCM 6th Ctrl Delay	22.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	170	0	0	90	45	25	975	215	0	0	0
Future Volume (veh/h)	55	170	0	0	90	45	25	975	215	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	0.98		1.00	1.00		0.98	1.00		0.93			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1885	1900	1856	1870	1900			
Adj Flow Rate, veh/h	61	189	0	0	100	50	28	1083	239			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	0	0	0	0	1	0	3	2	0			
Cap, veh/h	374	543	0	0	336	168	75	3086	901			
Arrive On Green	0.09	0.09	0.00	0.00	0.29	0.29	0.59	0.60	0.60			
Sat Flow, veh/h	1236	1900	0	0	1175	588	125	5143	1501			
Grp Volume(v), veh/h	61	189	0	0	0	150	417	694	239			
Grp Sat Flow(s),veh/h/ln	1236	1900	0	0	0	1763	1864	1702	1501			
Q Serve(g_s), s	3.3	6.5	0.0	0.0	0.0	4.6	8.1	7.2	5.3			
Cycle Q Clear(g_c), s	7.9	6.5	0.0	0.0	0.0	4.6	8.1	7.2	5.3			
Prop In Lane	1.00		0.00	0.00		0.33	0.07		1.00			
Lane Grp Cap(c), veh/h	374	543	0	0	0	504	1118	2042	901			
V/C Ratio(X)	0.16	0.35	0.00	0.00	0.00	0.30	0.37	0.34	0.27			
Avail Cap(c_a), veh/h	374	543	0	0	0	504	1118	2042	901			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.99	0.99	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	28.4	25.6	0.0	0.0	0.0	19.5	7.2	7.0	6.7			
Incr Delay (d2), s/veh	0.9	1.7	0.0	0.0	0.0	1.5	1.0	0.5	0.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.1	3.3	0.0	0.0	0.0	2.0	2.9	2.3	1.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.3	27.3	0.0	0.0	0.0	21.0	8.2	7.5	7.4			
LnGrp LOS	C	C	A	A	A	C	A	A	A			
Approach Vol, veh/h		250			150			1350				
Approach Delay, s/veh		27.8			21.0			7.7				
Approach LOS		C			C			A				

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	46.0	24.0	24.0
Change Period (Y+Rc), s	* 4.7	4.0	4.0
Max Green Setting (Gmax), s	* 41	20.0	20.0
Max Q Clear Time (g_c+I1), s	10.1	9.9	6.6
Green Ext Time (p_c), s	1.4	0.1	0.1

Intersection Summary	
HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection ID and Name	use dropdown NB PhasingType	use dropdown SB PhasingType	use dropdown EB PhasingType	use dropdown WB PhasingType	Cycle Length	Lost Time	use dropdow Use Overlap Calculator	use dropdow NBR Overla	use dropdow SBR Overlap	use dropdow EBR Overlap	use dropdow WBR Overla	BEGIN CALCULATIONS	1 EBL	3 EBT	4 EBR	5 WBL	6 WBT	7 WBR	8 NBL	9 NBT	10 NBR	11 SBL	12 SBT	13 SBR	14	Critical Flow Calculator WBL/EBT	EBL/WBT	NBL/SBT	SBL/NBT	V/S f/W	V/S N/S	Overlap Critical Flow Calculator NBR OV	NB OV V/S	SBR OV	SB OV V/S	EBR OV	EB OV V/S	WBR OV	WB OV V/S	V/S Overlap	Intersection V/C	HCM 6th Ctrl Delay	HCM 6th LOS	Synchro ID
6: SE Water Avenue & SE Clay Street	Permitted	Permitted		Permitted	80	8	No					Adj Flow Rate, veh/h	0	0	0	12	0	12	0	24	24	54	42	0 Protected	0.01	0.01	0.08	0.10			Right Turn Overlap	No		0.00	No		0.00	No		0.00				
												Sat Flow, veh/h	0	0	0	1810	0	1569	0	1870	1564	656	994	0 Permitted or Split	0.00	0.01	0.08	0.02			Right Turn Approach Phasing	Permitted		0.00	Permitted		0.00	0.00		0.00	No OV				
												V/s	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.01	0.02	0.08	0.04	0.00 selected phasing	0.00	0.01	0.08	0.02	0.01	0.08	Overlap Approach Phasing		0.00	0.01	Permitted	0.04	Permitted	0.04	N/A	**0.10**	**4**	**A**	6
7: SE Martin Luther King Jr. Boulevard & SE Stark Street	Protected	Protected		Protected	70	8	No	No	No	No	No	Adj Flow Rate, veh/h	0	142	12	111	31	0	0	0	0	136	957	12 Protected	0.17	0.02	0.21	0.22			Right Turn Overlap	No		0.00	No		0.00	No		0.00				
												Sat Flow, veh/h	0	1722	146	1250	1826	0	0	0	0	619	4666	1495 Permitted or Split	0.08	0.09	0.22	0.00			Right Turn Approach Phasing		0.00	0.00	Protected	0.09	Protected	0.09	No OV				
												V/s	0.00	0.08	0.08	0.09	0.02	0.00	0.00	0.00	0.00	0.22	0.21	0.01 selected phasing	0.17	0.02	0.22	0.22	0.17	0.22	Overlap Approach Phasing	Protected	0.08	0.00	0.21	0.00	0.21	N/A	**0.44**	**23**	**C**	7
8: SE Grand Avenue & SE Stark Street/ SE 9 Protected			Protected	Protected	70	8	No					Adj Flow Rate, veh/h	61	189	0	0	100	50	28	1083	239	0	0	0 Protected	0.10	0.13	0.22	0.21			Right Turn Overlap	No		0.00	No		0.00	No		0.00				
												Sat Flow, veh/h	1236	1900	0	0	1175	588	125	5143	1501	0	0	0 Permitted or Split	0.10	0.09	0.00	0.22			Right Turn Approach Phasing	Protected	0.22	0.22	Protected	0.22	Protected	0.05	No OV				
												V/s	0.05	0.10	0.00	0.00	0.09	0.09	0.22	0.21	0.16	0.00	0.00	0.00 selected phasing	0.10	0.13	0.22	0.22	0.13	0.22	Overlap Approach Phasing	Protected	0.10	0.22	Protected	0.21	Protected	0.21	N/A	**0.40**	**12**	**B**	8
												Adj Flow Rate, veh/h												Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No		0.00	No		0.00	No		0.00				
												Sat Flow, veh/h												Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing		0.00	0.00		0.00		0.00	No OV				
												V/s	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing		0.00	0.00		0.00		0.00	N/A	**0.00**	**0**	**A**

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	5	0	35	15	0
Future Vol, veh/h	5	5	0	35	15	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	55	55	55	55	55	55
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	9	0	64	27	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	91	27	-	0	-	0
Stage 1	27	-	-	-	-	-
Stage 2	64	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	914	1054	0	-	-	0
Stage 1	1001	-	0	-	-	0
Stage 2	964	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	914	1054	-	-	-	-
Mov Cap-2 Maneuver	914	-	-	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	964	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	979	-
HCM Lane V/C Ratio	-	0.019	-
HCM Control Delay (s)	-	8.7	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	20	30	0	0	5	0	5	5	5	15	0
Future Vol, veh/h	25	20	30	0	0	5	0	5	5	5	15	0
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	35	28	42	0	0	7	0	7	7	7	21	0
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	7.5	6.6	6.9	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	0%	56%	0%	0%	25%
Vol Thru, %	50%	44%	0%	0%	75%
Vol Right, %	50%	0%	100%	100%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	45	30	5	20
LT Vol	0	25	0	0	5
Through Vol	5	20	0	0	15
RT Vol	5	0	30	5	0
Lane Flow Rate	14	63	42	7	28
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.015	0.085	0.046	0.007	0.032
Departure Headway (Hd)	3.811	4.856	3.878	3.551	4.151
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	926	740	925	1001	853
Service Time	1.887	2.574	1.596	1.598	2.222
HCM Lane V/C Ratio	0.015	0.085	0.045	0.007	0.033
HCM Control Delay	6.9	8	6.8	6.6	7.4
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0	0.3	0.1	0	0.1

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	0	0	0	0	0	10	0	5	30	0
Future Vol, veh/h	5	0	0	0	0	0	0	10	0	5	30	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	7	0	0	0	0	0	0	14	0	7	43	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	71	71	43	71	71	14	43	0	0	14	0	0
Stage 1	57	57	-	14	14	-	-	-	-	-	-	-
Stage 2	14	14	-	57	57	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	925	823	1033	925	823	1072	1579	-	-	1617	-	-
Stage 1	960	851	-	1011	888	-	-	-	-	-	-	-
Stage 2	1011	888	-	960	851	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	922	820	1033	922	820	1072	1579	-	-	1617	-	-
Mov Cap-2 Maneuver	922	820	-	922	820	-	-	-	-	-	-	-
Stage 1	960	848	-	1011	888	-	-	-	-	-	-	-
Stage 2	1011	888	-	956	848	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.9	0	0	1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1579	-	-	922	-	1617	-	-
HCM Lane V/C Ratio	-	-	-	0.008	-	0.004	-	-
HCM Control Delay (s)	0	-	-	8.9	0	7.2	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	5	0	0	0	0	0	10	5	5	25	0
Future Vol, veh/h	0	5	0	0	0	0	0	10	5	5	25	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	0	0	51	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	7	0	0	0	0	0	14	7	7	36	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	68	71	36	72	68	18	36	0	0	21	0	0
Stage 1	50	50	-	18	18	-	-	-	-	-	-	-
Stage 2	18	21	-	54	50	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.71	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.759	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	930	823	912	924	826	1066	1588	-	-	1608	-	-
Stage 1	968	857	-	1006	884	-	-	-	-	-	-	-
Stage 2	1006	882	-	963	857	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	927	820	912	915	823	1066	1588	-	-	1608	-	-
Mov Cap-2 Maneuver	927	820	-	915	823	-	-	-	-	-	-	-
Stage 1	968	854	-	1006	884	-	-	-	-	-	-	-
Stage 2	1006	882	-	951	854	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	0	0	1.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1588	-	-	820	-	1608	-	-
HCM Lane V/C Ratio	-	-	-	0.009	-	0.004	-	-
HCM Control Delay (s)	0	-	-	9.4	0	7.2	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-

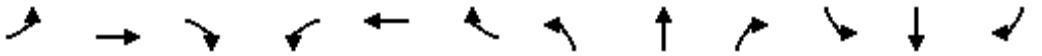
Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	0	0	10	5	5	5	20	15
Future Vol, veh/h	0	0	0	0	0	0	10	5	5	5	20	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	61	61	61	61	61	61	61	61	61
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0	16	8	8	8	33	25

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	106	110	46	58	0	0	16	0	0
Stage 1	62	62	-	-	-	-	-	-	-
Stage 2	44	48	-	-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	897	784	1029	1559	-	-	1615	-	-
Stage 1	966	847	-	-	-	-	-	-	-
Stage 2	984	859	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	884	0	1029	1559	-	-	1615	-	-
Mov Cap-2 Maneuver	884	0	-	-	-	-	-	-	-
Stage 1	956	0	-	-	-	-	-	-	-
Stage 2	979	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	3.7	0.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1559	-	-	-	-	1615	-	-
HCM Lane V/C Ratio	0.011	-	-	-	-	0.005	-	-
HCM Control Delay (s)	7.3	0	-	0	0	7.2	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	5	0	15	5	10	10	0
Future Volume (veh/h)	0	0	0	0	0	5	0	15	5	10	10	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1900	1900	1796	1900	0
Adj Flow Rate, veh/h				0	0	6	0	19	6	13	13	0
Peak Hour Factor				0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %				0	0	0	0	0	0	7	0	0
Cap, veh/h				30	0	27	0	252	214	674	100	0
Arrive On Green				0.00	0.00	0.02	0.00	0.13	0.13	0.13	0.13	0.00
Sat Flow, veh/h				1810	0	1610	0	1900	1610	755	755	0
Grp Volume(v), veh/h				0	0	6	0	19	6	26	0	0
Grp Sat Flow(s),veh/h/ln				1810	0	1610	0	1900	1610	1510	0	0
Q Serve(g_s), s				0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0
Cycle Q Clear(g_c), s				0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.50		0.00
Lane Grp Cap(c), veh/h				30	0	27	0	252	214	775	0	0
V/C Ratio(X)				0.00	0.00	0.23	0.00	0.08	0.03	0.03	0.00	0.00
Avail Cap(c_a), veh/h				6928	0	6165	0	7275	6165	6752	0	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh				0.0	0.0	4.6	0.0	3.6	3.6	3.7	0.0	0.0
Incr Delay (d2), s/veh				0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	10.5	0.0	3.6	3.6	3.7	0.0	0.0
LnGrp LOS				A	A	B	A	A	A	A	A	A
Approach Vol, veh/h					6			25			26	
Approach Delay, s/veh					10.5			3.6			3.7	
Approach LOS					B			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	5.2		5.2		4.2			
Change Period (Y+Rc), s	4.0		4.0		4.0			
Max Green Setting (Gmax), s	36.0		36.0		36.0			
Max Q Clear Time (g_c+I1), s	2.1		2.2		2.0			
Green Ext Time (p_c), s	0.1		0.1		0.0			

Intersection Summary		
HCM 6th Ctrl Delay	4.4	
HCM 6th LOS	A	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	15	5	40	5	0	0	0	0	50	340	5
Future Volume (veh/h)	0	15	5	40	5	0	0	0	0	50	340	5
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1870	1707
Adj Flow Rate, veh/h	0	20	7	53	7	0				66	447	7
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	2	13
Cap, veh/h	0	782	274	916	1113	0				190	1383	421
Arrive On Green	0.00	0.59	0.59	0.59	0.59	0.00				0.29	0.30	0.30
Sat Flow, veh/h	0	1335	467	1404	1900	0				632	4610	1402
Grp Volume(v), veh/h	0	0	27	53	7	0				192	321	7
Grp Sat Flow(s),veh/h/ln	0	0	1803	1404	1900	0				1839	1702	1402
Q Serve(g_s), s	0.0	0.0	0.4	1.2	0.1	0.0				5.7	5.1	0.2
Cycle Q Clear(g_c), s	0.0	0.0	0.4	1.6	0.1	0.0				5.7	5.1	0.2
Prop In Lane	0.00		0.26	1.00		0.00				0.34		1.00
Lane Grp Cap(c), veh/h	0	0	1056	916	1113	0				552	1021	421
V/C Ratio(X)	0.00	0.00	0.03	0.06	0.01	0.00				0.35	0.31	0.02
Avail Cap(c_a), veh/h	0	0	1056	916	1113	0				552	1021	421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	6.1	6.4	6.0	0.0				19.3	18.9	17.2
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.0				1.7	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.2	0.3	0.0	0.0				2.6	2.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	6.1	6.6	6.0	0.0				21.0	19.7	17.3
LnGrp LOS	A	A	A	A	A	A				C	B	B
Approach Vol, veh/h		27			60						520	
Approach Delay, s/veh		6.1			6.5						20.2	
Approach LOS		A			A						C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	25.0	45.0	45.0
Change Period (Y+Rc), s	* 4.8	4.0	4.0
Max Green Setting (Gmax), s	* 20	41.0	41.0
Max Q Clear Time (g_c+I1), s	7.7	2.4	3.6
Green Ext Time (p_c), s	0.8	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	18.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	50	0	0	35	25	10	345	35	0	0	0
Future Volume (veh/h)	15	50	0	0	35	25	10	345	35	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		0.98	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1870	1900			
Adj Flow Rate, veh/h	17	56	0	0	39	28	11	388	39			
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89			
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	0			
Cap, veh/h	449	543	0	0	291	209	82	3079	945			
Arrive On Green	0.29	0.29	0.00	0.00	0.29	0.29	0.59	0.60	0.60			
Sat Flow, veh/h	1344	1900	0	0	1018	731	137	5131	1576			
Grp Volume(v), veh/h	17	56	0	0	0	67	150	249	39			
Grp Sat Flow(s),veh/h/ln	1344	1900	0	0	0	1749	1864	1702	1576			
Q Serve(g_s), s	0.7	1.5	0.0	0.0	0.0	2.0	2.5	2.2	0.7			
Cycle Q Clear(g_c), s	2.7	1.5	0.0	0.0	0.0	2.0	2.5	2.2	0.7			
Prop In Lane	1.00		0.00	0.00		0.42	0.07		1.00			
Lane Grp Cap(c), veh/h	449	543	0	0	0	500	1118	2042	945			
V/C Ratio(X)	0.04	0.10	0.00	0.00	0.00	0.13	0.13	0.12	0.04			
Avail Cap(c_a), veh/h	449	543	0	0	0	500	1118	2042	945			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	19.6	18.4	0.0	0.0	0.0	18.6	6.1	6.0	5.7			
Incr Delay (d2), s/veh	0.2	0.4	0.0	0.0	0.0	0.6	0.2	0.1	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.2	0.7	0.0	0.0	0.0	0.8	0.9	0.7	0.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.7	18.8	0.0	0.0	0.0	19.1	6.4	6.2	5.8			
LnGrp LOS	B	B	A	A	A	B	A	A	A			
Approach Vol, veh/h		73			67			438				
Approach Delay, s/veh		19.0			19.1			6.2				
Approach LOS		B			B			A				

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	46.0	24.0	24.0
Change Period (Y+Rc), s	* 4.7	4.0	4.0
Max Green Setting (Gmax), s	* 41	20.0	20.0
Max Q Clear Time (g_c+I1), s	4.5	4.7	4.0
Green Ext Time (p_c), s	0.5	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	9.3
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection ID and Name	use dropdown NB PhasingType	use dropdown SB PhasingType	use dropdown EB PhasingType	use dropdown WB PhasingType	Cycle Length	Lost Time	use dropdown Use Overlap Calculator	use dropdown NBR Overlap	use dropdown SBR Overlap	use dropdown EBR Overlap	use dropdown WBR Overlap
6: SE Water Avenue & SE Clay Street	Permitted	Permitted		Permitted	80	8	No				
7: SE Martin Luther King Jr. Boulevard & SE Stark Street		Protected	Protected	Protected	70	8	No	No	No	No	No
8: SE Grand Avenue & SE Stark Street/ SE S	Protected		Protected	Protected	70	8	No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				

BEGIN CALCULATIONS 1	3 EBL	4 EBT	5 EBR	6 WBL	7 WBT	8 WBR	9 NBL	10 NBT	11 NBR	12 SBL	13 SBT	14 SBR		Critical Flow Calculator WBL/EBT	EBL/WBT	NBL/SBT	SBL/NBT	V/S E/W	V/S N/S
Adj Flow Rate, veh/h	0	0	0	0	0	6	0	19	6	13	13	0	Protected	0.00	0.00	0.02	0.03		
Sat Flow, veh/h	0	0	0	1810	0	1610	0	1900	1610	755	755	0	Permitted or Split	0.00	0.00	0.02	0.01		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.02	0.00	selected phasing	0.00	0.00	0.02	0.01	0.00	0.02
Adj Flow Rate, veh/h	0	20	7	53	7	0	0	0	0	66	447	7	Protected	0.05	0.00	0.10	0.10		
Sat Flow, veh/h	0	1335	467	1404	1900	0	0	0	0	632	4610	1402	Permitted or Split	0.01	0.04	0.10	0.00		
V/S	0.00	0.01	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.00	selected phasing	0.05	0.00	0.10	0.10	0.05	0.10
Adj Flow Rate, veh/h	17	56	0	0	39	28	11	388	39	0	0	0	Protected	0.03	0.05	0.08	0.08		
Sat Flow, veh/h	1344	1900	0	0	1018	731	137	5131	1576	0	0	0	Permitted or Split	0.03	0.04	0.00	0.08		
V/S	0.01	0.03	0.00	0.00	0.04	0.04	0.08	0.08	0.02	0.00	0.00	0.00	selected phasing	0.03	0.05	0.08	0.08	0.05	0.08
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00

Overlap Critical Flow Calculator	NBR OV	NB OV V/S	SBR OV	SB OV V/S	EBR OV	EB OV V/S	WBR OV	WB OV V/S	V/S Overlap		Intersection V/C	HCM 6th Ctrl Delay	HCM 6th LOS	Synchro ID
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	Permitted	0.00	Permitted	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	Permitted	0.02	Permitted	0.02	N/A		**0.02**	**4**	**A**	6
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	Protected	0.04	Protected	0.04	No OV					
Overlap Approach Phasing	Protected	0.01	Protected	0.01	0.00	0.10	0.00	0.10	N/A		**0.18**	**18**	**B**	7
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	Protected	0.08	Protected	0.08	Protected	0.01	Protected	0.01	No OV					
Overlap Approach Phasing	Protected	0.04	Protected	0.04	Protected	0.08	Protected	0.08	N/A		**0.15**	**9**	**A**	8
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	

List of Phasing Types
Protected
Permitted
Split

List of Overlap Types
Yes
No

Sheet Description:
This sheet reads in the adjusted flow rate and the saturation flow rate from Synchro and divides them to calculated the V/S for each movement.
The critical flow calculator calculates the critical v/s for each conflicting phase pair.
for protected phases, this v/s is the left turn v/s plus the max of the opposing movement v/s
for the permitted and split phases, this v/s is the max of the three movement v/s
The next step selects the proper v/s based on phasing provided
V/S by east-west and north-south is selected by taking the max of the phase pairs or by adding them (if split phasing)
If overlap calculator was selected in input section and overlap phases were indicated, then overlap v/s for intersection is calculated. See details below
If the right turn v/s is greater than the through v/s for the right turn overlap approach, then the right turn is assumed the critical movement and intersection v/c calc will use the v/s overlap instead of approach v/
The final step in v/c calculation uses the approach v/s ratios, cycle length, and lost time to calculate overall intersection v/c
Delay and LOS are read directly from the HCM 6 report

Overlap Calculator Details
Overlap calculator reads in whether an overlap phase is in use and what type of phasing is associated with the right turn approach and the overlapped approach
V/S is read in for right turn movement, and remaining approaches from previous calculations
-right turn overlap v/s is just the v/s for the right turn movement (i.e. NBR)
-right turn approach v/s is the critical v/s associated with the right turn approaches (i.e. NB/SB) and is calculated differently for protected vs split
-overlap approach v/s is the critical v/s associated with the overlap approaches (i.e. EB/WB) and is calculated differently for protected vs split phasing
The v/s overlap column sums the 3 v/s values for the overlap phasing to get the total v/s overlap to be used in the v/c calculation
If there are overlaps for both approaches (i.e. N/S or E/W), the v/s overlap will use the greater of the two for most conservative approach
Use Overlap Calculator' must be enabled and 'Use OV V/S' must be showing in V/S Overlap column in order for overlap v/s to be used in final v/c calculation

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	20	0	225	45	0
Future Vol, veh/h	5	20	0	225	45	0
Conflicting Peds, #/hr	1	0	9	0	0	9
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	1	7	0
Mvmt Flow	7	26	0	296	59	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	356	59	-	0	-	0
Stage 1	59	-	-	-	-	-
Stage 2	297	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	646	1012	0	-	-	0
Stage 1	969	-	0	-	-	0
Stage 2	758	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	646	1012	-	-	-	-
Mov Cap-2 Maneuver	646	-	-	-	-	-
Stage 1	969	-	-	-	-	-
Stage 2	758	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	909	-
HCM Lane V/C Ratio	-	0.036	-
HCM Control Delay (s)	-	9.1	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	185	90	190	5	0	15	0	25	15	5	60	0
Future Vol, veh/h	185	90	190	5	0	15	0	25	15	5	60	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	1	0	0	0	0	0	0	3	0	0	6	0
Mvmt Flow	201	98	207	5	0	16	0	27	16	5	65	0
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	10.2	7.5	8.3	8.7
HCM LOS	B	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	0%	67%	0%	25%	8%
Vol Thru, %	62%	33%	0%	0%	92%
Vol Right, %	38%	0%	100%	75%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	40	275	190	20	65
LT Vol	0	185	0	5	5
Through Vol	25	90	0	0	60
RT Vol	15	0	190	15	0
Lane Flow Rate	43	299	207	22	71
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.06	0.43	0.237	0.026	0.1
Departure Headway (Hd)	4.94	5.183	4.126	4.382	5.09
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	725	699	876	815	704
Service Time	2.97	2.883	1.826	2.416	3.117
HCM Lane V/C Ratio	0.059	0.428	0.236	0.027	0.101
HCM Control Delay	8.3	11.7	8.1	7.5	8.7
HCM Lane LOS	A	B	A	A	A
HCM 95th-tile Q	0.2	2.2	0.9	0.1	0.3

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	5	5	5	5	5	5	30	5	10	165	10
Future Vol, veh/h	0	5	5	5	5	5	5	30	5	10	165	10
Conflicting Peds, #/hr	2	0	0	0	0	2	5	0	7	7	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	6	0	0	2	0
Mvmt Flow	0	6	6	6	6	6	6	33	6	11	183	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	272	274	194	272	276	45	199	0	0	46	0	0
Stage 1	216	216	-	55	55	-	-	-	-	-	-	-
Stage 2	56	58	-	217	221	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	685	637	853	685	635	1031	1385	-	-	1575	-	-
Stage 1	791	728	-	962	853	-	-	-	-	-	-	-
Stage 2	961	851	-	790	724	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	666	622	849	665	620	1022	1378	-	-	1565	-	-
Mov Cap-2 Maneuver	666	622	-	665	620	-	-	-	-	-	-	-
Stage 1	784	719	-	951	844	-	-	-	-	-	-	-
Stage 2	944	842	-	773	715	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	10	1	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1378	-	-	718	733	1565	-	-
HCM Lane V/C Ratio	0.004	-	-	0.015	0.023	0.007	-	-
HCM Control Delay (s)	7.6	0	-	10.1	10	7.3	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	5	0	10	0	10	5	25	10	15	155	5
Future Vol, veh/h	5	5	0	10	0	10	5	25	10	15	155	5
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	11	11	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	6	0	0	2	0
Mvmt Flow	5	5	0	11	0	11	5	26	11	16	163	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	247	258	168	253	255	43	170	0	0	48	0	0
Stage 1	200	200	-	53	53	-	-	-	-	-	-	-
Stage 2	47	58	-	200	202	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	711	650	881	704	652	1033	1420	-	-	1572	-	-
Stage 1	806	739	-	965	855	-	-	-	-	-	-	-
Stage 2	972	851	-	806	738	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	695	632	879	684	634	1022	1417	-	-	1556	-	-
Mov Cap-2 Maneuver	695	632	-	684	634	-	-	-	-	-	-	-
Stage 1	801	729	-	951	843	-	-	-	-	-	-	-
Stage 2	958	839	-	791	728	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.5	9.5	0.9	0.6
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1417	-	-	662	820	1556	-	-
HCM Lane V/C Ratio	0.004	-	-	0.016	0.026	0.01	-	-
HCM Control Delay (s)	7.5	0	-	10.5	9.5	7.3	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

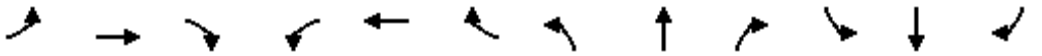
Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	0	5	0	0	0	15	25	5	15	100	55
Future Vol, veh/h	15	0	5	0	0	0	15	25	5	15	100	55
Conflicting Peds, #/hr	0	0	1	1	0	0	2	0	3	3	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	10	0	0	0	0	0	0	0	0	0	0	2
Mvmt Flow	16	0	5	0	0	0	16	27	5	16	109	60

Major/Minor	Minor2					Major1			Major2		
Conflicting Flow All	235	240	142			171	0	0	35	0	0
Stage 1	173	173	-			-	-	-	-	-	-
Stage 2	62	67	-			-	-	-	-	-	-
Critical Hdwy	6.5	6.5	6.2			4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.5	5.5	-			-	-	-	-	-	-
Critical Hdwy Stg 2	5.5	5.5	-			-	-	-	-	-	-
Follow-up Hdwy	3.59	4	3.3			2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	736	665	911			1418	-	-	1589	-	-
Stage 1	838	760	-			-	-	-	-	-	-
Stage 2	941	843	-			-	-	-	-	-	-
Platoon blocked, %							-	-		-	-
Mov Cap-1 Maneuver	716	0	908			1415	-	-	1589	-	-
Mov Cap-2 Maneuver	716	0	-			-	-	-	-	-	-
Stage 1	826	0	-			-	-	-	-	-	-
Stage 2	929	0	-			-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	2.5	0.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1415	-	-	716	908	1589	-	-
HCM Lane V/C Ratio	0.012	-	-	0.023	0.006	0.01	-	-
HCM Control Delay (s)	7.6	0	-	10.1	9	7.3	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	10	0	15	0	30	30	45	60	0
Future Volume (veh/h)	0	0	0	10	0	15	0	30	30	45	60	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h				11	0	17	0	34	34	52	69	0
Peak Hour Factor				0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				153	0	136	0	704	582	517	470	0
Arrive On Green				0.08	0.00	0.08	0.00	0.37	0.37	0.37	0.37	0.00
Sat Flow, veh/h				1810	0	1605	0	1900	1571	448	1270	0
Grp Volume(v), veh/h				11	0	17	0	34	34	121	0	0
Grp Sat Flow(s),veh/h/ln				1810	0	1605	0	1900	1571	1718	0	0
Q Serve(g_s), s				0.1	0.0	0.1	0.0	0.2	0.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s				0.1	0.0	0.1	0.0	0.2	0.2	0.6	0.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.43		0.00
Lane Grp Cap(c), veh/h				153	0	136	0	704	582	987	0	0
V/C Ratio(X)				0.07	0.00	0.12	0.00	0.05	0.06	0.12	0.00	0.00
Avail Cap(c_a), veh/h				4437	0	3936	0	4658	3851	4356	0	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh				6.2	0.0	6.2	0.0	3.0	3.0	3.1	0.0	0.0
Incr Delay (d2), s/veh				0.3	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				6.5	0.0	6.8	0.0	3.0	3.0	3.1	0.0	0.0
LnGrp LOS				A	A	A	A	A	A	A	A	A
Approach Vol, veh/h					28			68			121	
Approach Delay, s/veh					6.7			3.0			3.1	
Approach LOS					A			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	9.4		9.4		5.2			
Change Period (Y+Rc), s	4.0		4.0		4.0			
Max Green Setting (Gmax), s	36.0		36.0		36.0			
Max Q Clear Time (g_c+I1), s	2.2		2.6		2.1			
Green Ext Time (p_c), s	0.3		0.5		0.2			

Intersection Summary		
HCM 6th Ctrl Delay		3.5
HCM 6th LOS		A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	140	15	95	40	0	0	0	0	110	775	10
Future Volume (veh/h)	0	140	15	95	40	0	0	0	0	110	775	10
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.99		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1870	0				1900	1885	1811
Adj Flow Rate, veh/h	0	173	19	117	49	0				136	957	12
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81				0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	2	0				0	1	6
Cap, veh/h	0	502	55	366	561	0				362	2733	870
Arrive On Green	0.00	0.30	0.30	0.30	0.30	0.00				0.57	0.59	0.59
Sat Flow, veh/h	0	1673	184	1199	1870	0				619	4666	1486
Grp Volume(v), veh/h	0	0	192	117	49	0				408	685	12
Grp Sat Flow(s),veh/h/ln	0	0	1857	1199	1870	0				1854	1716	1486
Q Serve(g_s), s	0.0	0.0	5.6	5.9	1.3	0.0				8.2	7.2	0.2
Cycle Q Clear(g_c), s	0.0	0.0	5.6	11.6	1.3	0.0				8.2	7.2	0.2
Prop In Lane	0.00		0.10	1.00		0.00				0.33		1.00
Lane Grp Cap(c), veh/h	0	0	557	366	561	0				1086	2010	870
V/C Ratio(X)	0.00	0.00	0.34	0.32	0.09	0.00				0.38	0.34	0.01
Avail Cap(c_a), veh/h	0	0	557	366	561	0				1086	2010	870
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.96	0.96	0.96	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	19.1	23.6	17.6	0.0				7.8	7.5	6.1
Incr Delay (d2), s/veh	0.0	0.0	1.6	2.2	0.3	0.0				1.0	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	2.5	1.8	0.6	0.0				3.0	2.3	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	20.7	25.8	17.9	0.0				8.8	8.0	6.1
LnGrp LOS	A	A	C	C	B	A				A	A	A
Approach Vol, veh/h		192			166						1105	
Approach Delay, s/veh		20.7			23.5						8.2	
Approach LOS		C			C						A	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	45.0	25.0	25.0
Change Period (Y+Rc), s	* 4.8	4.0	4.0
Max Green Setting (Gmax), s	* 40	21.0	21.0
Max Q Clear Time (g_c+I1), s	10.2	7.6	13.6
Green Ext Time (p_c), s	2.0	0.2	0.1

Intersection Summary	
HCM 6th Ctrl Delay	11.6
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	190	0	0	90	50	45	860	190	0	0	0
Future Volume (veh/h)	60	190	0	0	90	50	45	860	190	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		0.97	1.00		0.94			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1870	1870	1885	1900			
Adj Flow Rate, veh/h	66	209	0	0	99	55	49	945	209			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91			
Percent Heavy Veh, %	0	0	0	0	0	2	2	1	0			
Cap, veh/h	372	543	0	0	324	180	145	2984	889			
Arrive On Green	0.19	0.19	0.00	0.00	0.29	0.29	0.59	0.59	0.59			
Sat Flow, veh/h	1238	1900	0	0	1132	629	246	5058	1506			
Grp Volume(v), veh/h	66	209	0	0	0	154	373	621	209			
Grp Sat Flow(s),veh/h/ln	1238	1900	0	0	0	1761	1873	1716	1506			
Q Serve(g_s), s	3.3	6.7	0.0	0.0	0.0	4.8	7.1	6.3	4.6			
Cycle Q Clear(g_c), s	8.1	6.7	0.0	0.0	0.0	4.8	7.1	6.3	4.6			
Prop In Lane	1.00		0.00	0.00		0.36	0.13		1.00			
Lane Grp Cap(c), veh/h	372	543	0	0	0	503	1105	2024	889			
V/C Ratio(X)	0.18	0.38	0.00	0.00	0.00	0.31	0.34	0.31	0.24			
Avail Cap(c_a), veh/h	372	543	0	0	0	503	1105	2024	889			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.95	0.95	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	25.6	22.9	0.0	0.0	0.0	19.6	7.3	7.2	6.8			
Incr Delay (d2), s/veh	1.0	2.0	0.0	0.0	0.0	1.6	0.8	0.4	0.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.1	3.3	0.0	0.0	0.0	2.1	2.6	2.0	1.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.6	24.9	0.0	0.0	0.0	21.1	8.2	7.6	7.5			
LnGrp LOS	C	C	A	A	A	C	A	A	A			
Approach Vol, veh/h		275			154			1203				
Approach Delay, s/veh		25.3			21.1			7.7				
Approach LOS		C			C			A				

Timer - Assigned Phs		2		4				8	
Phs Duration (G+Y+Rc), s		46.0		24.0				24.0	
Change Period (Y+Rc), s		* 4.7		4.0				4.0	
Max Green Setting (Gmax), s		* 41		20.0				20.0	
Max Q Clear Time (g_c+I1), s		9.1		10.1				6.8	
Green Ext Time (p_c), s		1.3		0.2				0.1	

Intersection Summary		
HCM 6th Ctrl Delay	12.0	
HCM 6th LOS	B	

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection ID and Name	use dropdown NB PhasingType	use dropdown SB PhasingType	use dropdown EB PhasingType	use dropdown WB PhasingType	Cycle Length	Lost Time	use dropdow Use Overlap Calculator	use dropdow NBR Overla	use dropdow SBR Overlap	use dropdow EBR Overlap	use dropdow WBR Overla	BEGIN CALCULATIONS	1 EBL	3 EBT	4 EBR	5 WBL	6 WBT	7 WBR	8 NBL	9 NBT	10 NBR	11 SBL	12 SBT	13 SBR	14	Critical Flow Calculator WBL/EBT	EBL/WBT	NBL/SBT	SBL/NBT	V/S f/W	V/S N/S	Overlap Critical Flow Calculator NBR OV	NB OV V/S	SBR OV	SB OV V/S	EBR OV	EB OV V/S	WBR OV	WB OV V/S	V/S Overlap	Intersection V/C	HCM 6th Ctrl Delay	HCM 6th LOS	Synchro ID
6: SE Water Avenue & SE Clay Street	Permitted	Permitted		Permitted	80	8	No					Adj Flow Rate, veh/h	0	0	0	11	0	17	0	34	34	52	69	0 Protected	0.01	0.01	0.05		0.14		Right Turn Overlap	No		0.00	No		0.00	No		0.00					
												Sat Flow, veh/h	0	0	0	1810	0	1605	0	1900	1571	448	1270	0 Permitted or Split	0.00	0.01	0.12		0.02		Right Turn Approach Phasing	Permitted		0.00	Permitted		0.00	No		0.00 No OV					
												V/S	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.02	0.02	0.12	0.05	0.00 selected phasing	0.00	0.01	0.12	0.02	0.01	0.12	Overlap Approach Phasing		0.00	0.01	0.00	0.01	Permitted	0.05	Permitted	0.05	N/A	**0.14**	**4**	**A**	6
7: SE Martin Luther King Jr. Boulevard & SE Stark Street	Protected	Protected		Protected	70	8	No	No	No	No	No	Adj Flow Rate, veh/h	0	173	19	117	49	0	0	0	0	136	957	12 Protected	0.20	0.03	0.21		0.22		Right Turn Overlap	No		0.00	No		0.00	No		0.00					
												Sat Flow, veh/h	0	1673	184	1199	1870	0	0	0	0	619	4666	1486 Permitted or Split	0.10	0.10	0.22		0.00		Right Turn Approach Phasing		0.00	0.00	0.00	Protected	0.10	Protected	0.10	No OV					
												V/S	0.00	0.10	0.10	0.10	0.03	0.00	0.00	0.00	0.00	0.22	0.21	0.01 selected phasing	0.20	0.03	0.22	0.22	0.20	0.22	Overlap Approach Phasing	Protected	0.10	Protected	0.10	0.00	0.21	0.00	0.21	N/A	**0.47**	**12**	**B**	7
8: SE Grand Avenue & SE Stark Street/ SE 9 Protected			Protected	Protected	70	8	No					Adj Flow Rate, veh/h	66	209	0	0	99	55	49	945	209	0	0	0 Protected	0.11	0.14	0.20		0.19		Right Turn Overlap	No		0.00	No		0.00	No		0.00					
												Sat Flow, veh/h	1238	1900	0	0	1132	629	246	5058	1506	0	0	0 Permitted or Split	0.11	0.09	0.00		0.20		Right Turn Approach Phasing	Protected		0.20	Protected		0.20	Protected		0.05	Protected		0.05	No OV					
												V/S	0.05	0.11	0.00	0.00	0.09	0.09	0.20	0.19	0.14	0.00	0.00	0.00 selected phasing	0.11	0.14	0.20	0.20	0.19	0.20	Overlap Approach Phasing	Protected	0.11	Protected	0.11	Protected	0.19	Protected	0.19	N/A	**0.38**	**12**	**B**	8
												Adj Flow Rate, veh/h												Protected	0.00	0.00	0.00		0.00		Right Turn Overlap	No		0.00	No		0.00	No		0.00					
												Sat Flow, veh/h												Permitted or Split	0.00	0.00	0.00		0.00		Right Turn Approach Phasing		0.00	0.00	0.00		0.00	0.00		0.00	No OV					
												V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing		0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	10	0	100	25	0
Future Vol, veh/h	10	10	0	100	25	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	1	0	0
Mvmt Flow	12	12	0	116	29	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	145	29	-	0	-	0
Stage 1	29	-	-	-	-	-
Stage 2	116	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	852	1052	0	-	-	0
Stage 1	999	-	0	-	-	0
Stage 2	914	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	852	1052	-	-	-	-
Mov Cap-2 Maneuver	852	-	-	-	-	-
Stage 1	999	-	-	-	-	-
Stage 2	914	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	941	-
HCM Lane V/C Ratio	-	0.025	-
HCM Control Delay (s)	-	8.9	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	75	65	110	5	0	5	0	20	5	5	30	0
Future Vol, veh/h	75	65	110	5	0	5	0	20	5	5	30	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	1	0	0	0	0	0	0	0	0	0
Mvmt Flow	86	75	126	6	0	6	0	23	6	6	34	0
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	8.3	7.3	7.7	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	0%	54%	0%	50%	14%
Vol Thru, %	80%	46%	0%	0%	86%
Vol Right, %	20%	0%	100%	50%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	25	140	110	10	35
LT Vol	0	75	0	5	5
Through Vol	20	65	0	0	30
RT Vol	5	0	110	5	0
Lane Flow Rate	29	161	126	11	40
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.036	0.219	0.138	0.014	0.052
Departure Headway (Hd)	4.484	4.895	3.927	4.245	4.617
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	803	731	907	847	780
Service Time	2.488	2.649	1.679	2.253	2.621
HCM Lane V/C Ratio	0.036	0.22	0.139	0.013	0.051
HCM Control Delay	7.7	9	7.3	7.3	7.9
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.1	0.8	0.5	0	0.2

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	5	10	5	5	5	5	20	5	10	75	10
Future Vol, veh/h	5	5	10	5	5	5	5	20	5	10	75	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	8	0	0	1	0
Mvmt Flow	6	6	12	6	6	6	6	24	6	12	91	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	166	163	97	169	166	27	103	0	0	30	0	0
Stage 1	121	121	-	39	39	-	-	-	-	-	-	-
Stage 2	45	42	-	130	127	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	803	733	965	799	730	1054	1502	-	-	1596	-	-
Stage 1	888	800	-	981	866	-	-	-	-	-	-	-
Stage 2	974	864	-	878	795	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	786	724	965	777	721	1054	1502	-	-	1596	-	-
Mov Cap-2 Maneuver	786	724	-	777	721	-	-	-	-	-	-	-
Stage 1	884	794	-	977	863	-	-	-	-	-	-	-
Stage 2	958	861	-	853	789	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	9.4	1.2	0.8
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1502	-	-	846	828	1596	-	-
HCM Lane V/C Ratio	0.004	-	-	0.029	0.022	0.008	-	-
HCM Control Delay (s)	7.4	0	-	9.4	9.4	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	5	5	5	5	5	5	5	20	5	15	70	5
Future Vol, veh/h	5	5	5	5	5	5	5	20	5	15	70	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	1	0
Mvmt Flow	6	6	6	6	6	6	6	24	6	18	83	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	167	164	86	167	164	27	89	0	0	30	0	0
Stage 1	122	122	-	39	39	-	-	-	-	-	-	-
Stage 2	45	42	-	128	125	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	802	732	978	802	732	1054	1519	-	-	1596	-	-
Stage 1	887	799	-	981	866	-	-	-	-	-	-	-
Stage 2	974	864	-	881	796	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	783	720	978	783	720	1054	1519	-	-	1596	-	-
Mov Cap-2 Maneuver	783	720	-	783	720	-	-	-	-	-	-	-
Stage 1	883	789	-	977	863	-	-	-	-	-	-	-
Stage 2	958	861	-	859	786	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	9.4	1.2	1.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1519	-	-	813	830	1596	-	-
HCM Lane V/C Ratio	0.004	-	-	0.022	0.022	0.011	-	-
HCM Control Delay (s)	7.4	0	-	9.5	9.4	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

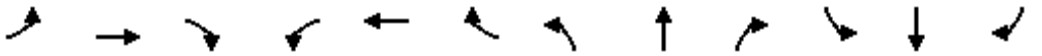
Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	0	0	0	0	0	5	15	5	5	50	30
Future Vol, veh/h	5	0	0	0	0	0	5	15	5	5	50	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	6	0	0	0	0	0	6	17	6	6	57	34

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	118	121	74	91	0	0	23	0	0
Stage 1	86	86	-	-	-	-	-	-	-
Stage 2	32	35	-	-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	883	773	993	1517	-	-	1605	-	-
Stage 1	942	827	-	-	-	-	-	-	-
Stage 2	996	870	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	876	0	993	1517	-	-	1605	-	-
Mov Cap-2 Maneuver	876	0	-	-	-	-	-	-	-
Stage 1	938	0	-	-	-	-	-	-	-
Stage 2	992	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	1.5	0.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1517	-	-	876	-	1605	-	-
HCM Lane V/C Ratio	0.004	-	-	0.007	-	0.004	-	-
HCM Control Delay (s)	7.4	0	-	9.1	0	7.3	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	5	0	10	0	15	10	30	20	0
Future Volume (veh/h)	0	0	0	5	0	10	0	15	10	30	20	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1900	1900	1900	1796	0
Adj Flow Rate, veh/h				6	0	12	0	18	12	37	24	0
Peak Hour Factor				0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %				0	0	0	0	0	0	0	7	0
Cap, veh/h				88	0	77	0	420	356	719	124	0
Arrive On Green				0.05	0.00	0.05	0.00	0.22	0.22	0.22	0.22	0.00
Sat Flow, veh/h				1810	0	1577	0	1900	1610	866	562	0
Grp Volume(v), veh/h				6	0	12	0	18	12	61	0	0
Grp Sat Flow(s),veh/h/ln				1810	0	1577	0	1900	1610	1428	0	0
Q Serve(g_s), s				0.0	0.0	0.1	0.0	0.1	0.1	0.4	0.0	0.0
Cycle Q Clear(g_c), s				0.0	0.0	0.1	0.0	0.1	0.1	0.5	0.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.61		0.00
Lane Grp Cap(c), veh/h				88	0	77	0	420	356	843	0	0
V/C Ratio(X)				0.07	0.00	0.16	0.00	0.04	0.03	0.07	0.00	0.00
Avail Cap(c_a), veh/h				5949	0	5185	0	6246	5293	5374	0	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh				5.0	0.0	5.0	0.0	3.4	3.3	3.5	0.0	0.0
Incr Delay (d2), s/veh				0.5	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				5.4	0.0	6.3	0.0	3.4	3.4	3.5	0.0	0.0
LnGrp LOS				A	A	A	A	A	A	A	A	A
Approach Vol, veh/h					18			30			61	
Approach Delay, s/veh					6.0			3.4			3.5	
Approach LOS					A			A			A	

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		6.4				6.4		4.5				
Change Period (Y+Rc), s		4.0				4.0		4.0				
Max Green Setting (Gmax), s		36.0				36.0		36.0				
Max Q Clear Time (g_c+I1), s		2.1				2.5		2.1				
Green Ext Time (p_c), s		0.1				0.2		0.1				

Intersection Summary		
HCM 6th Ctrl Delay	3.9	
HCM 6th LOS	A	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	75	10	70	40	0	0	0	0	85	595	15
Future Volume (veh/h)	0	75	10	70	40	0	0	0	0	85	595	15
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1885	1900	1767	0				1900	1885	1900
Adj Flow Rate, veh/h	0	80	11	74	43	0				90	633	16
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	1	0	9	0				0	1	0
Cap, veh/h	0	489	67	452	530	0				362	2734	916
Arrive On Green	0.00	0.30	0.30	0.30	0.30	0.00				0.57	0.59	0.59
Sat Flow, veh/h	0	1628	224	1323	1767	0				618	4667	1564
Grp Volume(v), veh/h	0	0	91	74	43	0				270	453	16
Grp Sat Flow(s),veh/h/ln	0	0	1852	1323	1767	0				1854	1716	1564
Q Serve(g_s), s	0.0	0.0	2.5	3.1	1.2	0.0				5.0	4.4	0.3
Cycle Q Clear(g_c), s	0.0	0.0	2.5	5.6	1.2	0.0				5.0	4.4	0.3
Prop In Lane	0.00		0.12	1.00		0.00				0.33		1.00
Lane Grp Cap(c), veh/h	0	0	556	452	530	0				1086	2010	916
V/C Ratio(X)	0.00	0.00	0.16	0.16	0.08	0.00				0.25	0.23	0.02
Avail Cap(c_a), veh/h	0	0	556	452	530	0				1086	2010	916
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.99	0.97	0.97	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	18.0	20.1	17.6	0.0				7.1	6.9	6.1
Incr Delay (d2), s/veh	0.0	0.0	0.6	0.8	0.3	0.0				0.5	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.1	1.0	0.5	0.0				1.8	1.4	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	18.7	20.8	17.9	0.0				7.7	7.2	6.1
LnGrp LOS	A	A	B	C	B	A				A	A	A
Approach Vol, veh/h		91			117						739	
Approach Delay, s/veh		18.7			19.8						7.3	
Approach LOS		B			B						A	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	45.0	25.0	25.0
Change Period (Y+Rc), s	* 4.8	4.0	4.0
Max Green Setting (Gmax), s	* 40	21.0	21.0
Max Q Clear Time (g_c+I1), s	7.0	4.5	7.6
Green Ext Time (p_c), s	1.2	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	10.0
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	120	0	0	80	60	30	605	85	0	0	0
Future Volume (veh/h)	40	120	0	0	80	60	30	605	85	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	0.98		1.00	1.00		0.96	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1885	1900	1900	1885	1900			
Adj Flow Rate, veh/h	43	128	0	0	85	64	32	644	90			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	0	0	0	0	1	0	0	1	0			
Cap, veh/h	372	543	0	0	280	211	139	2990	940			
Arrive On Green	0.09	0.09	0.00	0.00	0.29	0.29	0.59	0.59	0.59			
Sat Flow, veh/h	1236	1900	0	0	980	738	236	5068	1592			
Grp Volume(v), veh/h	43	128	0	0	0	149	254	422	90			
Grp Sat Flow(s),veh/h/ln	1236	1900	0	0	0	1717	1873	1716	1592			
Q Serve(g_s), s	2.3	4.4	0.0	0.0	0.0	4.8	4.5	4.0	1.7			
Cycle Q Clear(g_c), s	7.0	4.4	0.0	0.0	0.0	4.8	4.5	4.0	1.7			
Prop In Lane	1.00		0.00	0.00		0.43	0.13		1.00			
Lane Grp Cap(c), veh/h	372	543	0	0	0	491	1105	2024	940			
V/C Ratio(X)	0.12	0.24	0.00	0.00	0.00	0.30	0.23	0.21	0.10			
Avail Cap(c_a), veh/h	372	543	0	0	0	491	1105	2024	940			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.99	0.99	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	28.1	24.6	0.0	0.0	0.0	19.6	6.8	6.7	6.2			
Incr Delay (d2), s/veh	0.6	1.0	0.0	0.0	0.0	1.6	0.5	0.2	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.8	2.1	0.0	0.0	0.0	2.0	1.6	1.3	0.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.7	25.6	0.0	0.0	0.0	21.1	7.3	6.9	6.4			
LnGrp LOS	C	C	A	A	A	C	A	A	A			
Approach Vol, veh/h		171			149			766				
Approach Delay, s/veh		26.4			21.1			7.0				
Approach LOS		C			C			A				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		46.0		24.0				24.0				
Change Period (Y+Rc), s		* 4.7		4.0				4.0				
Max Green Setting (Gmax), s		* 41		20.0				20.0				
Max Q Clear Time (g_c+I1), s		6.5		9.0				6.8				
Green Ext Time (p_c), s		0.8		0.1				0.1				

Intersection Summary	
HCM 6th Ctrl Delay	12.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection ID and Name	use dropdown NB PhasingType	use dropdown SB PhasingType	use dropdown EB PhasingType	use dropdown WB PhasingType	Cycle Length	Lost Time	use dropdown Use Overlap Calculator	use dropdow NBR Overla	use dropdow SBR Overlap	use dropdow EBR Overlap	use dropdow WBR Overla
6: SE Water Avenue & SE Clay Street	Permitted	Permitted		Permitted	80	8	No				
7: SE Martin Luther King Jr. Boulevard & SE Stark Street		Protected	Protected	Protected	70	8	No	No	No	No	No
8: SE Grand Avenue & SE Stark Street/ SE S	Protected		Protected	Protected	70	8	No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				

Critical Flow Calculator

BEGIN CALCULATIONS	1	3	4	5	6	7	8	9	10	11	12	13	14		WBL/EBT	EBL/WBT	NBL/SBT	SBL/NBT	V/S E/W	V/S N/S
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR							
Adj Flow Rate, veh/h		0	0	0	6	0	12	0	18	12	37	24	0	Protected	0.00	0.01	0.04	0.05		
Sat Flow, veh/h		0	0	0	1810	0	1577	0	1900	1610	866	562	0	Permitted or Split	0.00	0.01	0.04	0.01		
V/S		0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.04	0.04	0.00	selected phasing	0.00	0.01	0.04	0.01	0.01	0.04
Adj Flow Rate, veh/h		0	80	11	74	43	0	0	0	0	90	633	16	Protected	0.11	0.02	0.14	0.15		
Sat Flow, veh/h		0	1628	224	1323	1767	0	0	0	0	618	4667	1564	Permitted or Split	0.05	0.06	0.15	0.00		
V/S		0.00	0.05	0.05	0.06	0.02	0.00	0.00	0.00	0.00	0.15	0.14	0.01	selected phasing	0.11	0.02	0.15	0.15	0.11	0.15
Adj Flow Rate, veh/h		43	128	0	0	85	64	32	644	90	0	0	0	Protected	0.07	0.12	0.14	0.13		
Sat Flow, veh/h		1236	1900	0	0	980	738	236	5068	1592	0	0	0	Permitted or Split	0.07	0.09	0.00	0.14		
V/S		0.03	0.07	0.00	0.00	0.09	0.09	0.14	0.13	0.06	0.00	0.00	0.00	selected phasing	0.07	0.12	0.14	0.14	0.12	0.14
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00

Overlap Critical Flow Calculator

	NBR OV	NB OV V/S	SBR OV	SB OV V/S	EBR OV	EB OV V/S	WBR OV	WB OV V/S	V/S Overlap	Intersection V/C	HCM 6th Ctrl Delay	HCM 6th LOS	Synchro ID
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	Permitted	0.00	Permitted	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.01	0.00	0.01	Permitted	0.04	Permitted	0.04	N/A	**0.06**	**4**	**A**	6
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	Protected	0.06	Protected	0.06	No OV				
Overlap Approach Phasing	Protected	0.05	Protected	0.05	0.00	0.14	0.00	0.14	N/A	**0.28**	**10**	**A**	7
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	Protected	0.14	Protected	0.14	Protected	0.03	Protected	0.03	No OV				
Overlap Approach Phasing	Protected	0.09	Protected	0.09	Protected	0.13	Protected	0.13	N/A	**0.29**	**12**	**B**	8
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	

List of Phasing Types
Protected
Permitted
Split

List of Overlap Types
Yes
No

Sheet Description:
This sheet reads in the adjusted flow rate and the saturation flow rate from Synchro and divides them to calculated the V/S for each movement.
The critical flow calculator calculates the critical v/s for each conflicting phase pair.
for protected phases, this v/s is the left turn v/s plus the max of the opposing movement v/s
for the permitted and split phases, this v/s is the max of the three movement v/s
The next step selects the proper v/s based on phasing provided
V/S by east-west and north-south is selected by taking the max of the phase pairs or by adding them (if split phasing)
If overlap calculator was selected in input section and overlap phases were indicated, then overlap v/s for intersection is calculated. See details below
If the right turn v/s is greater than the through v/s for the right turn overlap approach, then the right turn is assumed the critical movement and intersection v/c calc will use the v/s overlap instead of approach v/
The final step in v/c calculation uses the approach v/s ratios, cycle length, and lost time to calculate overall intersection v/c
Delay and LOS are read directly from the HCM 6 report

Overlap Calculator Details
Overlap calculator reads in whether an overlap phase is in use and what type of phasing is associated with the right turn approach and the overlapped approach
V/S is read in for right turn movement, and remaining approaches from previous calculations
-right turn overlap v/s is just the v/s for the right turn movement (i.e. NBR)
-right turn approach v/s is the critical v/s associated with the right turn approaches (i.e. NB/SB) and is calculated differently for protected vs split
-overlap approach v/s is the critical v/s associated with the overlap approaches (i.e. EB/WB) and is calculated differently for protected vs split phasing
The v/s overlap column sums the 3 v/s values for the overlap phasing to get the total v/s overlap to be used in the v/c calculation
If there are overlaps for both approaches (i.e. N/S or E/W), the v/s overlap will use the greater of the two for most conservative approach
Use Overlap Calculator' must be enabled and 'Use OV V/S' must be showing in V/S Overlap column in order for overlap v/s to be used in final v/c calculation

SECTION 12: NO-BUILD INTERSECTION ANALYSIS REPORTS

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	15	0	230	30	0
Future Vol, veh/h	10	15	0	230	30	0
Conflicting Peds, #/hr	14	3	22	0	0	22
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	0	1	0	0	1	0
Mvmt Flow	12	19	0	284	37	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	335	40	-	0	-	0
Stage 1	37	-	-	-	-	-
Stage 2	298	-	-	-	-	-
Critical Hdwy	6.4	6.21	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.309	-	-	-	-
Pot Cap-1 Maneuver	664	1034	0	-	-	0
Stage 1	991	-	0	-	-	0
Stage 2	758	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	664	1031	-	-	-	-
Mov Cap-2 Maneuver	664	-	-	-	-	-
Stage 1	991	-	-	-	-	-
Stage 2	758	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	844	-
HCM Lane V/C Ratio	-	0.037	-
HCM Control Delay (s)	-	9.4	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	185	85	170	10	0	15	0	30	15	10	35	0
Future Vol, veh/h	185	85	170	10	0	15	0	30	15	10	35	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	1	0	2	0	0	0	0	2	0	0	0	0
Mvmt Flow	197	90	181	11	0	16	0	32	16	11	37	0
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	9.9	7.6	8.2	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	0%	69%	0%	40%	22%
Vol Thru, %	67%	31%	0%	0%	78%
Vol Right, %	33%	0%	100%	60%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	45	270	170	25	45
LT Vol	0	185	0	10	10
Through Vol	30	85	0	0	35
RT Vol	15	0	170	15	0
Lane Flow Rate	48	287	181	27	48
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.065	0.402	0.2	0.033	0.067
Departure Headway (Hd)	4.861	5.043	3.981	4.417	5.07
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	740	704	886	812	709
Service Time	2.869	2.839	1.776	2.437	3.079
HCM Lane V/C Ratio	0.065	0.408	0.204	0.033	0.068
HCM Control Delay	8.2	11.3	7.8	7.6	8.4
HCM Lane LOS	A	B	A	A	A
HCM 95th-tile Q	0.2	1.9	0.7	0.1	0.2

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	5	5	5	5	0	40	5	5	125	5
Future Vol, veh/h	5	0	5	5	5	5	0	40	5	5	125	5
Conflicting Peds, #/hr	1	0	2	2	0	1	2	0	10	10	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	20	1	0
Mvmt Flow	6	0	6	6	6	6	0	47	6	6	145	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	219	225	152	225	225	61	153	0	0	63	0	0
Stage 1	162	162	-	60	60	-	-	-	-	-	-	-
Stage 2	57	63	-	165	165	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.3	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.38	-	-
Pot Cap-1 Maneuver	741	678	900	735	678	1010	1440	-	-	1432	-	-
Stage 1	845	768	-	957	849	-	-	-	-	-	-	-
Stage 2	960	846	-	842	766	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	727	666	897	719	666	999	1437	-	-	1418	-	-
Mov Cap-2 Maneuver	727	666	-	719	666	-	-	-	-	-	-	-
Stage 1	843	763	-	947	841	-	-	-	-	-	-	-
Stage 2	947	838	-	831	761	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	9.8	0	0.3
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1437	-	-	803	771	1418	-	-
HCM Lane V/C Ratio	-	-	-	0.014	0.023	0.004	-	-
HCM Control Delay (s)	0	-	-	9.5	9.8	7.5	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	5	15	5	10	0	30	10	20	110	5
Future Vol, veh/h	5	0	5	15	5	10	0	30	10	20	110	5
Conflicting Peds, #/hr	1	0	5	5	0	1	3	0	11	11	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	6	0	6	18	6	12	0	36	12	24	131	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	237	244	142	243	241	54	140	0	0	59	0	0
Stage 1	185	185	-	53	53	-	-	-	-	-	-	-
Stage 2	52	59	-	190	188	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	722	661	911	715	664	1019	1456	-	-	1558	-	-
Stage 1	821	751	-	965	855	-	-	-	-	-	-	-
Stage 2	966	850	-	816	748	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	697	641	904	691	644	1007	1452	-	-	1542	-	-
Mov Cap-2 Maneuver	697	641	-	691	644	-	-	-	-	-	-	-
Stage 1	819	736	-	955	846	-	-	-	-	-	-	-
Stage 2	947	842	-	793	733	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.6	10	0	1.1
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1452	-	-	787	761	1542	-	-
HCM Lane V/C Ratio	-	-	-	0.015	0.047	0.015	-	-
HCM Control Delay (s)	0	-	-	9.6	10	7.4	0	-
HCM Lane LOS	A	-	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

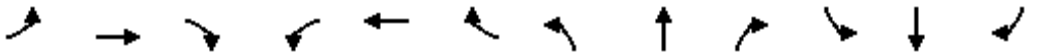
Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	5	5	0	0	0	10	20	5	15	85	40
Future Vol, veh/h	10	5	5	0	0	0	10	20	5	15	85	40
Conflicting Peds, #/hr	1	0	1	1	0	1	9	0	7	7	0	9
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	8	1	0
Mvmt Flow	14	7	7	0	0	0	14	27	7	21	116	55

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	255	264	154	180	0	0	41	0	0
Stage 1	195	195	-	-	-	-	-	-	-
Stage 2	60	69	-	-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2	4.1	-	-	4.18	-	-
Critical Hdwy Stg 1	5.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	2.2	-	-	2.272	-	-
Pot Cap-1 Maneuver	738	645	897	1408	-	-	1530	-	-
Stage 1	843	743	-	-	-	-	-	-	-
Stage 2	968	841	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	707	0	888	1396	-	-	1530	-	-
Mov Cap-2 Maneuver	707	0	-	-	-	-	-	-	-
Stage 1	827	0	-	-	-	-	-	-	-
Stage 2	946	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	2.2	0.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1396	-	-	707	888	1530	-	-
HCM Lane V/C Ratio	0.01	-	-	0.029	0.008	0.013	-	-
HCM Control Delay (s)	7.6	0	-	10.2	9.1	7.4	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	10	0	10	0	25	30	45	45	0
Future Volume (veh/h)	0	0	0	10	0	10	0	25	30	45	45	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		0.97	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1870	1900	1885	1900	0
Adj Flow Rate, veh/h				12	0	12	0	30	36	54	54	0
Peak Hour Factor				0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %				0	0	0	0	2	0	1	0	0
Cap, veh/h				151	0	131	0	662	554	569	408	0
Arrive On Green				0.08	0.00	0.08	0.00	0.35	0.35	0.35	0.35	0.00
Sat Flow, veh/h				1810	0	1568	0	1870	1563	534	1151	0
Grp Volume(v), veh/h				12	0	12	0	30	36	108	0	0
Grp Sat Flow(s),veh/h/ln				1810	0	1568	0	1870	1563	1685	0	0
Q Serve(g_s), s				0.1	0.0	0.1	0.0	0.1	0.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s				0.1	0.0	0.1	0.0	0.1	0.2	0.6	0.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.50		0.00
Lane Grp Cap(c), veh/h				151	0	131	0	662	554	976	0	0
V/C Ratio(X)				0.08	0.00	0.09	0.00	0.05	0.07	0.11	0.00	0.00
Avail Cap(c_a), veh/h				4581	0	3970	0	4735	3957	4420	0	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh				6.0	0.0	6.0	0.0	3.0	3.0	3.1	0.0	0.0
Incr Delay (d2), s/veh				0.3	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				6.3	0.0	6.4	0.0	3.0	3.1	3.2	0.0	0.0
LnGrp LOS				A	A	A	A	A	A	A	A	A
Approach Vol, veh/h					24			66			108	
Approach Delay, s/veh					6.4			3.0			3.2	
Approach LOS					A			A			A	

Timer - Assigned Phs	2			6		8					
Phs Duration (G+Y+Rc), s	9.0			9.0		5.2					
Change Period (Y+Rc), s	4.0			4.0		4.0					
Max Green Setting (Gmax), s	36.0			36.0		36.0					
Max Q Clear Time (g_c+I1), s	2.2			2.6		2.1					
Green Ext Time (p_c), s	0.3			0.4		0.1					

Intersection Summary		
HCM 6th Ctrl Delay	3.5	
HCM 6th LOS	A	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	115	10	90	25	0	0	0	0	110	780	10
Future Volume (veh/h)	0	115	10	90	25	0	0	0	0	110	780	10
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00				1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1885	1900	1826	0				1900	1885	1900
Adj Flow Rate, veh/h	0	142	12	111	31	0				136	963	12
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81				0.81	0.81	0.81
Percent Heavy Veh, %	0	0	1	0	5	0				0	1	0
Cap, veh/h	0	1009	85	789	1069	0				185	1401	449
Arrive On Green	0.00	0.59	0.59	0.59	0.59	0.00				0.29	0.30	0.30
Sat Flow, veh/h	0	1722	146	1250	1826	0				615	4670	1495
Grp Volume(v), veh/h	0	0	154	111	31	0				410	689	12
Grp Sat Flow(s),veh/h/ln	0	0	1868	1250	1826	0				1854	1716	1495
Q Serve(g_s), s	0.0	0.0	2.6	3.1	0.5	0.0				13.9	12.3	0.4
Cycle Q Clear(g_c), s	0.0	0.0	2.6	5.7	0.5	0.0				13.9	12.3	0.4
Prop In Lane	0.00		0.08	1.00		0.00				0.33		1.00
Lane Grp Cap(c), veh/h	0	0	1094	789	1069	0				556	1029	449
V/C Ratio(X)	0.00	0.00	0.14	0.14	0.03	0.00				0.74	0.67	0.03
Avail Cap(c_a), veh/h	0	0	1094	789	1069	0				556	1029	449
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.92	0.96	0.96	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	6.5	7.8	6.1	0.0				22.1	21.5	17.3
Incr Delay (d2), s/veh	0.0	0.0	0.2	0.4	0.0	0.0				8.4	3.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.9	0.8	0.2	0.0				7.0	5.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	6.8	8.2	6.2	0.0				30.6	24.9	17.4
LnGrp LOS	A	A	A	A	A	A				C	C	B
Approach Vol, veh/h		154			142						1111	
Approach Delay, s/veh		6.8			7.7						26.9	
Approach LOS		A			A						C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	25.0	45.0	45.0
Change Period (Y+Rc), s	* 4.8	4.0	4.0
Max Green Setting (Gmax), s	* 20	41.0	41.0
Max Q Clear Time (g_c+I1), s	15.9	4.6	7.7
Green Ext Time (p_c), s	1.1	0.2	0.1

Intersection Summary	
HCM 6th Ctrl Delay	22.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	170	0	0	90	45	25	990	215	0	0	0
Future Volume (veh/h)	55	170	0	0	90	45	25	990	215	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	0.98		1.00	1.00		0.98	1.00		0.93			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1885	1900	1856	1870	1900			
Adj Flow Rate, veh/h	61	189	0	0	100	50	28	1100	239			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	0	0	0	0	1	0	3	2	0			
Cap, veh/h	374	543	0	0	336	168	74	3087	901			
Arrive On Green	0.09	0.09	0.00	0.00	0.29	0.29	0.59	0.60	0.60			
Sat Flow, veh/h	1236	1900	0	0	1175	588	123	5145	1501			
Grp Volume(v), veh/h	61	189	0	0	0	150	424	704	239			
Grp Sat Flow(s),veh/h/ln	1236	1900	0	0	0	1763	1864	1702	1501			
Q Serve(g_s), s	3.3	6.5	0.0	0.0	0.0	4.6	8.2	7.3	5.3			
Cycle Q Clear(g_c), s	7.9	6.5	0.0	0.0	0.0	4.6	8.2	7.3	5.3			
Prop In Lane	1.00		0.00	0.00		0.33	0.07		1.00			
Lane Grp Cap(c), veh/h	374	543	0	0	0	504	1119	2042	901			
V/C Ratio(X)	0.16	0.35	0.00	0.00	0.00	0.30	0.38	0.34	0.27			
Avail Cap(c_a), veh/h	374	543	0	0	0	504	1119	2042	901			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.99	0.99	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	28.4	25.6	0.0	0.0	0.0	19.5	7.3	7.1	6.7			
Incr Delay (d2), s/veh	0.9	1.7	0.0	0.0	0.0	1.5	1.0	0.5	0.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.1	3.3	0.0	0.0	0.0	2.0	3.0	2.3	1.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.3	27.3	0.0	0.0	0.0	21.0	8.2	7.5	7.4			
LnGrp LOS	C	C	A	A	A	C	A	A	A			
Approach Vol, veh/h		250			150			1367				
Approach Delay, s/veh		27.8			21.0			7.7				
Approach LOS		C			C			A				

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	46.0	24.0	24.0
Change Period (Y+Rc), s	* 4.7	4.0	4.0
Max Green Setting (Gmax), s	* 41	20.0	20.0
Max Q Clear Time (g_c+I1), s	10.2	9.9	6.6
Green Ext Time (p_c), s	1.5	0.1	0.1

Intersection Summary	
HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection ID and Name	use dropdown NB PhasingType	use dropdown SB PhasingType	use dropdown EB PhasingType	use dropdown WB PhasingType	Cycle Length	Lost Time	use dropdown Use Overlap Calculator	use dropdown NBR Overlap	use dropdown SBR Overlap	use dropdown EBR Overlap	use dropdown WBR Overlap
6: SE Water Avenue & SE Clay Street	Permitted	Permitted		Permitted	80	8	No				
7: SE Martin Luther King Jr. Boulevard & SE Stark Street		Protected	Protected	Protected	70	8	No	No	No	No	No
8: SE Grand Avenue & SE Stark Street/ SE S	Protected		Protected	Protected	70	8	No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				

BEGIN CALCULATIONS	1	3 EBL	4 EBT	5 EBR	6 WBL	7 WBT	8 WBR	9 NBL	10 NBT	11 NBR	12 SBL	13 SBT	14 SBR		Critical Flow Calculator WBL/EBT	EBL/WBT	NBL/SBT	SBL/NBT	V/S E/W	V/S N/S
	Adj Flow Rate, veh/h	0	0	0	12	0	12	0	30	36	54	54	0	Protected	0.01	0.01	0.05	0.12		
	Sat Flow, veh/h	0	0	0	1810	0	1568	0	1870	1563	534	1151	0	Permitted or Split	0.00	0.01	0.10	0.02		
	V/S	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.02	0.02	0.10	0.05	0.00	selected phasing	0.00	0.01	0.10	0.02	0.01	0.10
	Adj Flow Rate, veh/h	0	142	12	111	31	0	0	0	0	136	963	12	Protected	0.17	0.02	0.21	0.22		
	Sat Flow, veh/h	0	1722	146	1250	1826	0	0	0	0	615	4670	1495	Permitted or Split	0.08	0.09	0.22	0.00		
	V/S	0.00	0.08	0.08	0.09	0.02	0.00	0.00	0.00	0.00	0.22	0.21	0.01	selected phasing	0.17	0.02	0.22	0.22	0.17	0.22
	Adj Flow Rate, veh/h	61	189	0	0	100	50	28	1100	239	0	0	0	Protected	0.10	0.13	0.23	0.21		
	Sat Flow, veh/h	1236	1900	0	0	1175	588	123	5145	1501	0	0	0	Permitted or Split	0.10	0.09	0.00	0.23		
	V/S	0.05	0.10	0.00	0.00	0.09	0.09	0.23	0.21	0.16	0.00	0.00	0.00	selected phasing	0.10	0.13	0.23	0.23	0.13	0.23
	Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
	Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
	V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
	Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
	Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
	V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
	Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
	Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
	V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
	Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
	Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
	V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
	Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
	Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
	V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
	Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
	Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
	V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
	Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
	Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
	V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
	Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
	Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
	V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
	Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
	Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
	V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
	Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
	Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
	V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
	Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
	Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
	V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
	Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
	Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
	V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
	Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
	Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
	V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
	Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
	Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
	V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
	Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
	Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
	V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
	Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
	Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
	V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
	Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
	Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
	V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00

Overlap Critical Flow Calculator	NBR OV	NB OV V/S	SBR OV	SB OV V/S	EBR OV	EB OV V/S	WBR OV	WB OV V/S	V/S Overlap		Intersection V/C	HCM 6th Ctrl Delay	HCM 6th LOS	Synchro ID
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	Permitted	0.00	Permitted	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.01	0.00	0.01	Permitted	0.05	Permitted	0.05	N/A		**0.12**	**4**	**A**	6
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	Protected	0.09	Protected	0.09	No OV					
Overlap Approach Phasing	Protected	0.08	Protected	0.08	0.00	0.21	0.00	0.21	N/A		**0.44**	**23**	**C**	7
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	Protected	0.23	Protected	0.23	Protected	0.05	Protected	0.05	No OV					
Overlap Approach Phasing	Protected	0.10	Protected	0.10	Protected	0.21	Protected	0.21	N/A		**0.41**	**12**	**B**	8
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	

List of Phasing Types
Protected
Permitted
Split

List of Overlap Types
Yes
No

Sheet Description:
This sheet reads in the adjusted flow rate and the saturation flow rate from Synchro and divides them to calculated the V/S for each movement.
The critical flow calculator calculates the critical v/s for each conflicting phase pair.
for protected phases, this v/s is the left turn v/s plus the max of the opposing movement v/s
for the permitted and split phases, this v/s is the max of the three movement v/s
The next step selects the proper v/s based on phasing provided
V/S by east-west and north-south is selected by taking the max of the phase pairs or by adding them (if split phasing)
If overlap calculator was selected in input section and overlap phases were indicated, then overlap v/s for intersection is calculated. See details below
If the right turn v/s is greater than the through v/s for the right turn overlap approach, then the right turn is assumed the critical movement and intersection v/c calc will use the v/s overlap instead of v/s.
The final step in v/c calculation uses the approach v/s ratios, cycle length, and lost time to calculate overall intersection v/c
Delay and LOS are read directly from the HCM 6 report

Overlap Calculator Details
Overlap calculator reads in whether an overlap phase is in use and what type of phasing is associated with the right turn approach and the overlapped approach
V/S is read in for right turn movement, and remaining approaches from previous calculations
-right turn overlap v/s is just the v/s for the right turn movement (i.e. NBR)
-right turn approach v/s is the critical v/s associated with the right turn approaches (i.e. NB/SB) and is calculated differently for protected vs split
-overlap approach v/s is the critical v/s associated with the overlap approaches (i.e. EB/WB) and is calculated differently for protected vs split phasing
The v/s overlap column sums the 3 v/s values for the overlap phasing to get the total v/s overlap to be used in the v/c calculation
If there are overlaps for both approaches (i.e. N/S or E/W), the v/s overlap will use the greater of the two for most conservative approach
Use Overlap Calculator' must be enabled and 'Use OV V/S' must be showing in V/S Overlap column in order for overlap v/s to be used in final v/c calculation

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	5	0	35	15	0
Future Vol, veh/h	5	5	0	35	15	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	55	55	55	55	55	55
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	9	0	64	27	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	91	27	-	0	-	0
Stage 1	27	-	-	-	-	-
Stage 2	64	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	914	1054	0	-	-	0
Stage 1	1001	-	0	-	-	0
Stage 2	964	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	914	1054	-	-	-	-
Mov Cap-2 Maneuver	914	-	-	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	964	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	979	-
HCM Lane V/C Ratio	-	0.019	-
HCM Control Delay (s)	-	8.7	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	20	30	0	0	5	0	5	5	5	15	0
Future Vol, veh/h	25	20	30	0	0	5	0	5	5	5	15	0
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	35	28	42	0	0	7	0	7	7	7	21	0
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	7.5	6.6	6.9	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	0%	56%	0%	0%	25%
Vol Thru, %	50%	44%	0%	0%	75%
Vol Right, %	50%	0%	100%	100%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	45	30	5	20
LT Vol	0	25	0	0	5
Through Vol	5	20	0	0	15
RT Vol	5	0	30	5	0
Lane Flow Rate	14	63	42	7	28
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.015	0.085	0.046	0.007	0.032
Departure Headway (Hd)	3.811	4.856	3.878	3.551	4.151
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	926	740	925	1001	853
Service Time	1.887	2.574	1.596	1.598	2.222
HCM Lane V/C Ratio	0.015	0.085	0.045	0.007	0.033
HCM Control Delay	6.9	8	6.8	6.6	7.4
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0	0.3	0.1	0	0.1

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	0	0	0	0	0	10	0	5	30	0
Future Vol, veh/h	5	0	0	0	0	0	0	10	0	5	30	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	7	0	0	0	0	0	0	14	0	7	43	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	71	71	43	71	71	14	43	0	0	14	0	0
Stage 1	57	57	-	14	14	-	-	-	-	-	-	-
Stage 2	14	14	-	57	57	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	925	823	1033	925	823	1072	1579	-	-	1617	-	-
Stage 1	960	851	-	1011	888	-	-	-	-	-	-	-
Stage 2	1011	888	-	960	851	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	922	820	1033	922	820	1072	1579	-	-	1617	-	-
Mov Cap-2 Maneuver	922	820	-	922	820	-	-	-	-	-	-	-
Stage 1	960	848	-	1011	888	-	-	-	-	-	-	-
Stage 2	1011	888	-	956	848	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.9	0	0	1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1579	-	-	922	-	1617	-	-
HCM Lane V/C Ratio	-	-	-	0.008	-	0.004	-	-
HCM Control Delay (s)	0	-	-	8.9	0	7.2	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	5	0	0	0	0	0	10	5	5	25	0
Future Vol, veh/h	0	5	0	0	0	0	0	10	5	5	25	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	0	0	51	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	7	0	0	0	0	0	14	7	7	36	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	68	71	36	72	68	18	36	0	0	21	0	0
Stage 1	50	50	-	18	18	-	-	-	-	-	-	-
Stage 2	18	21	-	54	50	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.71	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.759	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	930	823	912	924	826	1066	1588	-	-	1608	-	-
Stage 1	968	857	-	1006	884	-	-	-	-	-	-	-
Stage 2	1006	882	-	963	857	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	927	820	912	915	823	1066	1588	-	-	1608	-	-
Mov Cap-2 Maneuver	927	820	-	915	823	-	-	-	-	-	-	-
Stage 1	968	854	-	1006	884	-	-	-	-	-	-	-
Stage 2	1006	882	-	951	854	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	0	0	1.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1588	-	-	820	-	1608	-	-
HCM Lane V/C Ratio	-	-	-	0.009	-	0.004	-	-
HCM Control Delay (s)	0	-	-	9.4	0	7.2	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-

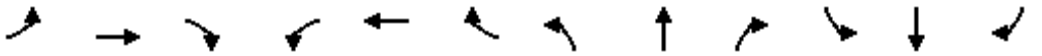
Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	0	0	10	5	5	5	20	15
Future Vol, veh/h	0	0	0	0	0	0	10	5	5	5	20	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	61	61	61	61	61	61	61	61	61
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0	16	8	8	8	33	25

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	106	110	46	58	0	0	16	0	0
Stage 1	62	62	-	-	-	-	-	-	-
Stage 2	44	48	-	-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	897	784	1029	1559	-	-	1615	-	-
Stage 1	966	847	-	-	-	-	-	-	-
Stage 2	984	859	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	884	0	1029	1559	-	-	1615	-	-
Mov Cap-2 Maneuver	884	0	-	-	-	-	-	-	-
Stage 1	956	0	-	-	-	-	-	-	-
Stage 2	979	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	3.7	0.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1559	-	-	-	-	1615	-	-
HCM Lane V/C Ratio	0.011	-	-	-	-	0.005	-	-
HCM Control Delay (s)	7.3	0	-	0	0	7.2	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	5	0	15	5	10	10	0
Future Volume (veh/h)	0	0	0	0	0	5	0	15	5	10	10	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1900	1900	1796	1900	0
Adj Flow Rate, veh/h				0	0	6	0	19	6	13	13	0
Peak Hour Factor				0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %				0	0	0	0	0	0	7	0	0
Cap, veh/h				30	0	27	0	252	214	674	100	0
Arrive On Green				0.00	0.00	0.02	0.00	0.13	0.13	0.13	0.13	0.00
Sat Flow, veh/h				1810	0	1610	0	1900	1610	755	755	0
Grp Volume(v), veh/h				0	0	6	0	19	6	26	0	0
Grp Sat Flow(s),veh/h/ln				1810	0	1610	0	1900	1610	1510	0	0
Q Serve(g_s), s				0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0
Cycle Q Clear(g_c), s				0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.50		0.00
Lane Grp Cap(c), veh/h				30	0	27	0	252	214	775	0	0
V/C Ratio(X)				0.00	0.00	0.23	0.00	0.08	0.03	0.03	0.00	0.00
Avail Cap(c_a), veh/h				6928	0	6165	0	7275	6165	6752	0	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh				0.0	0.0	4.6	0.0	3.6	3.6	3.7	0.0	0.0
Incr Delay (d2), s/veh				0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	10.5	0.0	3.6	3.6	3.7	0.0	0.0
LnGrp LOS				A	A	B	A	A	A	A	A	A
Approach Vol, veh/h					6			25			26	
Approach Delay, s/veh					10.5			3.6			3.7	
Approach LOS					B			A			A	

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		5.2				5.2		4.2				
Change Period (Y+Rc), s		4.0				4.0		4.0				
Max Green Setting (Gmax), s		36.0				36.0		36.0				
Max Q Clear Time (g_c+I1), s		2.1				2.2		2.0				
Green Ext Time (p_c), s		0.1				0.1		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		4.4
HCM 6th LOS		A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	15	5	40	5	0	0	0	0	50	340	5
Future Volume (veh/h)	0	15	5	40	5	0	0	0	0	50	340	5
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1870	1707
Adj Flow Rate, veh/h	0	20	7	53	7	0				66	447	7
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	2	13
Cap, veh/h	0	782	274	916	1113	0				190	1383	421
Arrive On Green	0.00	0.59	0.59	0.59	0.59	0.00				0.29	0.30	0.30
Sat Flow, veh/h	0	1335	467	1404	1900	0				632	4610	1402
Grp Volume(v), veh/h	0	0	27	53	7	0				192	321	7
Grp Sat Flow(s),veh/h/ln	0	0	1803	1404	1900	0				1839	1702	1402
Q Serve(g_s), s	0.0	0.0	0.4	1.2	0.1	0.0				5.7	5.1	0.2
Cycle Q Clear(g_c), s	0.0	0.0	0.4	1.6	0.1	0.0				5.7	5.1	0.2
Prop In Lane	0.00		0.26	1.00		0.00				0.34		1.00
Lane Grp Cap(c), veh/h	0	0	1056	916	1113	0				552	1021	421
V/C Ratio(X)	0.00	0.00	0.03	0.06	0.01	0.00				0.35	0.31	0.02
Avail Cap(c_a), veh/h	0	0	1056	916	1113	0				552	1021	421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	6.1	6.4	6.0	0.0				19.3	18.9	17.2
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.0				1.7	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.2	0.3	0.0	0.0				2.6	2.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	6.1	6.6	6.0	0.0				21.0	19.7	17.3
LnGrp LOS	A	A	A	A	A	A				C	B	B
Approach Vol, veh/h		27			60						520	
Approach Delay, s/veh		6.1			6.5						20.2	
Approach LOS		A			A						C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	25.0	45.0	45.0
Change Period (Y+Rc), s	* 4.8	4.0	4.0
Max Green Setting (Gmax), s	* 20	41.0	41.0
Max Q Clear Time (g_c+I1), s	7.7	2.4	3.6
Green Ext Time (p_c), s	0.8	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	18.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	50	0	0	35	25	10	350	35	0	0	0
Future Volume (veh/h)	15	50	0	0	35	25	10	350	35	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		0.98	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1870	1900			
Adj Flow Rate, veh/h	17	56	0	0	39	28	11	393	39			
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89			
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	0			
Cap, veh/h	449	543	0	0	291	209	81	3080	945			
Arrive On Green	0.29	0.29	0.00	0.00	0.29	0.29	0.59	0.60	0.60			
Sat Flow, veh/h	1344	1900	0	0	1018	731	135	5133	1576			
Grp Volume(v), veh/h	17	56	0	0	0	67	152	252	39			
Grp Sat Flow(s),veh/h/ln	1344	1900	0	0	0	1749	1864	1702	1576			
Q Serve(g_s), s	0.7	1.5	0.0	0.0	0.0	2.0	2.5	2.2	0.7			
Cycle Q Clear(g_c), s	2.7	1.5	0.0	0.0	0.0	2.0	2.5	2.2	0.7			
Prop In Lane	1.00		0.00	0.00		0.42	0.07		1.00			
Lane Grp Cap(c), veh/h	449	543	0	0	0	500	1118	2042	945			
V/C Ratio(X)	0.04	0.10	0.00	0.00	0.00	0.13	0.14	0.12	0.04			
Avail Cap(c_a), veh/h	449	543	0	0	0	500	1118	2042	945			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	19.6	18.4	0.0	0.0	0.0	18.6	6.1	6.0	5.7			
Incr Delay (d2), s/veh	0.2	0.4	0.0	0.0	0.0	0.6	0.3	0.1	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.2	0.7	0.0	0.0	0.0	0.8	0.9	0.7	0.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.7	18.8	0.0	0.0	0.0	19.1	6.4	6.2	5.8			
LnGrp LOS	B	B	A	A	A	B	A	A	A			
Approach Vol, veh/h		73			67			443				
Approach Delay, s/veh		19.0			19.1			6.2				
Approach LOS		B			B			A				

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	46.0	24.0	24.0
Change Period (Y+Rc), s	* 4.7	4.0	4.0
Max Green Setting (Gmax), s	* 41	20.0	20.0
Max Q Clear Time (g_c+I1), s	4.5	4.7	4.0
Green Ext Time (p_c), s	0.5	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	9.3
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection ID and Name	use dropdown NB PhasingType	use dropdown SB PhasingType	use dropdown EB PhasingType	use dropdown WB PhasingType	Cycle Length	Lost Time	use dropdown Use Overlap Calculator	use dropdown NBR Overla	use dropdown SBR Overla	use dropdown EBR Overla	use dropdown WBR Overla
6: SE Water Avenue & SE Clay Street	Permitted	Permitted		Permitted	80	8	No				
7: SE Martin Luther King Jr. Boulevard & SE Stark Street		Protected	Protected	Protected	70	8	No	No	No	No	No
8: SE Grand Avenue & SE Stark Street/ SE S	Protected		Protected	Protected	70	8	No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				

BEGIN CALCULATIONS

	1 EBL	3 EBT	4 EBR	5 WBL	6 WBT	7 WBR	8 NBL	9 NBT	10 NBR	11 SBL	12 SBT	13 SBR	14	Critical Flow Calculator WBL/EBT	EBL/WBT	NBL/SBT	SBL/NBT	V/S E/W	V/S N/S
Adj Flow Rate, veh/h	0	0	0	0	0	6	0	19	6	13	13	0	Protected	0.00	0.00	0.02	0.03		
Sat Flow, veh/h	0	0	0	1810	0	1610	0	1900	1610	755	755	0	Permitted or Split	0.00	0.00	0.02	0.01		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.02	0.00	selected phasing	0.00	0.00	0.02	0.01	0.00	0.02
Adj Flow Rate, veh/h	0	20	7	53	7	0	0	0	0	66	447	7	Protected	0.05	0.00	0.10	0.10		
Sat Flow, veh/h	0	1335	467	1404	1900	0	0	0	0	632	4610	1402	Permitted or Split	0.01	0.04	0.10	0.00		
V/S	0.00	0.01	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.00	selected phasing	0.05	0.00	0.10	0.10	0.05	0.10
Adj Flow Rate, veh/h	17	56	0	0	39	28	11	393	39	0	0	0	Protected	0.03	0.05	0.08	0.08		
Sat Flow, veh/h	1344	1900	0	0	1018	731	135	5133	1576	0	0	0	Permitted or Split	0.03	0.04	0.00	0.08		
V/S	0.01	0.03	0.00	0.00	0.04	0.04	0.08	0.08	0.02	0.00	0.00	0.00	selected phasing	0.03	0.05	0.08	0.08	0.05	0.08
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00

Overlap Critical Flow Calculator	NBR OV	NB OV V/S	SBR OV	SB OV V/S	EBR OV	EB OV V/S	WBR OV	WB OV V/S	V/S Overlap		Intersection V/C	HCM 6th Ctrl Delay	HCM 6th LOS	Synchro ID
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	Permitted	0.00	Permitted	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	Permitted	0.02	Permitted	0.02	N/A		**0.02**	**4**	**A**	6
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	Protected	0.04	Protected	0.04	No OV					
Overlap Approach Phasing	Protected	0.01	Protected	0.01	0.00	0.10	0.00	0.10	N/A		**0.18**	**18**	**B**	7
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	Protected	0.08	Protected	0.08	Protected	0.01	Protected	0.01	No OV					
Overlap Approach Phasing	Protected	0.04	Protected	0.04	Protected	0.08	Protected	0.08	N/A		**0.15**	**9**	**A**	8
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	

List of Phasing Types
Protected
Permitted
Split

List of Overlap Types
Yes
No

Sheet Description:
This sheet reads in the adjusted flow rate and the saturation flow rate from Synchro and divides them to calculated the V/S for each movement.
The critical flow calculator calculates the critical v/s for each conflicting phase pair.
for protected phases, this v/s is the left turn v/s plus the max of the opposing movement v/s
for the permitted and split phases, this v/s is the max of the three movement v/s
The next step selects the proper v/s based on phasing provided
V/S by east-west and north-south is selected by taking the max of the phase pairs or by adding them (if split phasing)
If overlap calculator was selected in input section and overlap phases were indicated, then overlap v/s for intersection is calculated. See details below
If the right turn v/s is greater than the through v/s for the right turn overlap approach, then the right turn is assumed the critical movement and intersection v/c calc will use the v/s overlap instead of approach v/
The final step in v/c calculation uses the approach v/s ratios, cycle length, and lost time to calculate overall intersection v/c
Delay and LOS are read directly from the HCM 6 report

Overlap Calculator Details
Overlap calculator reads in whether an overlap phase is in use and what type of phasing is associated with the right turn approach and the overlapped approach
V/S is read in for right turn movement, and remaining approaches from previous calculations
-right turn overlap v/s is just the v/s for the right turn movement (i.e. NBR)
-right turn approach v/s is the critical v/s associated with the right turn approaches (i.e. NB/SB) and is calculated differently for protected vs split
-overlap approach v/s is the critical v/s associated with the overlap approaches (i.e. EB/WB) and is calculated differently for protected vs split phasing
The v/s overlap column sums the 3 v/s values for the overlap phasing to get the total v/s overlap to be used in the v/c calculation
If there are overlaps for both approaches (i.e. N/S or E/W), the v/s overlap will use the greater of the two for most conservative approach
Use Overlap Calculator' must be enabled and 'Use OV V/S' must be showing in V/S Overlap column in order for overlap v/s to be used in final v/c calculation

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	20	0	225	45	0
Future Vol, veh/h	5	20	0	225	45	0
Conflicting Peds, #/hr	1	0	9	0	0	9
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	1	7	0
Mvmt Flow	7	26	0	296	59	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	356	59	-	0	-	0
Stage 1	59	-	-	-	-	-
Stage 2	297	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	646	1012	0	-	-	0
Stage 1	969	-	0	-	-	0
Stage 2	758	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	646	1012	-	-	-	-
Mov Cap-2 Maneuver	646	-	-	-	-	-
Stage 1	969	-	-	-	-	-
Stage 2	758	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	909	-
HCM Lane V/C Ratio	-	0.036	-
HCM Control Delay (s)	-	9.1	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	185	90	195	5	0	15	0	25	15	5	60	0
Future Vol, veh/h	185	90	195	5	0	15	0	25	15	5	60	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	1	0	0	0	0	0	0	3	0	0	6	0
Mvmt Flow	201	98	212	5	0	16	0	27	16	5	65	0
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	10.2	7.5	8.3	8.7
HCM LOS	B	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	0%	67%	0%	25%	8%
Vol Thru, %	62%	33%	0%	0%	92%
Vol Right, %	38%	0%	100%	75%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	40	275	195	20	65
LT Vol	0	185	0	5	5
Through Vol	25	90	0	0	60
RT Vol	15	0	195	15	0
Lane Flow Rate	43	299	212	22	71
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.06	0.43	0.243	0.026	0.1
Departure Headway (Hd)	4.948	5.183	4.126	4.388	5.096
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	724	699	875	815	704
Service Time	2.977	2.883	1.826	2.419	3.124
HCM Lane V/C Ratio	0.059	0.428	0.242	0.027	0.101
HCM Control Delay	8.3	11.7	8.1	7.5	8.7
HCM Lane LOS	A	B	A	A	A
HCM 95th-tile Q	0.2	2.2	1	0.1	0.3

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	5	5	5	5	5	5	30	5	10	170	10
Future Vol, veh/h	0	5	5	5	5	5	5	30	5	10	170	10
Conflicting Peds, #/hr	2	0	0	0	0	2	5	0	7	7	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	6	0	0	2	0
Mvmt Flow	0	6	6	6	6	6	6	33	6	11	189	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	278	280	200	278	282	45	205	0	0	46	0	0
Stage 1	222	222	-	55	55	-	-	-	-	-	-	-
Stage 2	56	58	-	223	227	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	678	632	846	678	630	1031	1378	-	-	1575	-	-
Stage 1	785	723	-	962	853	-	-	-	-	-	-	-
Stage 2	961	851	-	784	720	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	659	617	842	658	615	1022	1371	-	-	1565	-	-
Mov Cap-2 Maneuver	659	617	-	658	615	-	-	-	-	-	-	-
Stage 1	778	714	-	951	844	-	-	-	-	-	-	-
Stage 2	944	842	-	767	711	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	10.1	1	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1371	-	-	712	727	1565	-	-
HCM Lane V/C Ratio	0.004	-	-	0.016	0.023	0.007	-	-
HCM Control Delay (s)	7.6	0	-	10.1	10.1	7.3	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	5	0	15	0	10	5	25	10	15	160	5
Future Vol, veh/h	5	5	0	15	0	10	5	25	10	15	160	5
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	11	11	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	6	0	0	2	0
Mvmt Flow	5	5	0	16	0	11	5	26	11	16	168	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	252	263	173	258	260	43	175	0	0	48	0	0
Stage 1	205	205	-	53	53	-	-	-	-	-	-	-
Stage 2	47	58	-	205	207	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	706	646	876	699	648	1033	1414	-	-	1572	-	-
Stage 1	802	736	-	965	855	-	-	-	-	-	-	-
Stage 2	972	851	-	802	734	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	690	629	874	679	631	1022	1411	-	-	1556	-	-
Mov Cap-2 Maneuver	690	629	-	679	631	-	-	-	-	-	-	-
Stage 1	797	726	-	951	843	-	-	-	-	-	-	-
Stage 2	958	839	-	787	724	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.6	9.8	0.9	0.6
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1411	-	-	658	784	1556	-	-
HCM Lane V/C Ratio	0.004	-	-	0.016	0.034	0.01	-	-
HCM Control Delay (s)	7.6	0	-	10.6	9.8	7.3	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

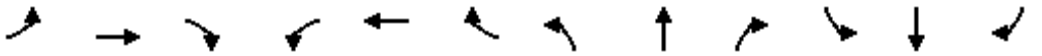
Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	0	5	0	0	0	25	25	5	15	115	55
Future Vol, veh/h	15	0	5	0	0	0	25	25	5	15	115	55
Conflicting Peds, #/hr	0	0	1	1	0	0	2	0	3	3	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	10	0	0	0	0	0	0	0	0	0	0	2
Mvmt Flow	16	0	5	0	0	0	27	27	5	16	125	60

Major/Minor	Minor2					Major1			Major2		
Conflicting Flow All	273	278	158			187	0	0	35	0	0
Stage 1	189	189	-			-	-	-	-	-	-
Stage 2	84	89	-			-	-	-	-	-	-
Critical Hdwy	6.5	6.5	6.2			4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.5	5.5	-			-	-	-	-	-	-
Critical Hdwy Stg 2	5.5	5.5	-			-	-	-	-	-	-
Follow-up Hdwy	3.59	4	3.3			2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	700	633	893			1399	-	-	1589	-	-
Stage 1	824	748	-			-	-	-	-	-	-
Stage 2	919	825	-			-	-	-	-	-	-
Platoon blocked, %							-	-		-	-
Mov Cap-1 Maneuver	676	0	890			1396	-	-	1589	-	-
Mov Cap-2 Maneuver	676	0	-			-	-	-	-	-	-
Stage 1	806	0	-			-	-	-	-	-	-
Stage 2	907	0	-			-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.2	3.5	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1396	-	-	676	890	1589	-	-
HCM Lane V/C Ratio	0.019	-	-	0.024	0.006	0.01	-	-
HCM Control Delay (s)	7.6	0	-	10.5	9.1	7.3	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	10	0	15	0	40	45	45	75	0
Future Volume (veh/h)	0	0	0	10	0	15	0	40	45	45	75	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h				11	0	17	0	46	52	52	86	0
Peak Hour Factor				0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				153	0	135	0	782	646	464	563	0
Arrive On Green				0.08	0.00	0.08	0.00	0.41	0.41	0.41	0.41	0.00
Sat Flow, veh/h				1810	0	1605	0	1900	1570	369	1367	0
Grp Volume(v), veh/h				11	0	17	0	46	52	138	0	0
Grp Sat Flow(s),veh/h/ln				1810	0	1605	0	1900	1570	1736	0	0
Q Serve(g_s), s				0.1	0.0	0.2	0.0	0.2	0.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s				0.1	0.0	0.2	0.0	0.2	0.3	0.7	0.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.38		0.00
Lane Grp Cap(c), veh/h				153	0	135	0	782	646	1027	0	0
V/C Ratio(X)				0.07	0.00	0.13	0.00	0.06	0.08	0.13	0.00	0.00
Avail Cap(c_a), veh/h				4104	0	3641	0	4310	3561	4050	0	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh				6.7	0.0	6.7	0.0	2.8	2.8	3.0	0.0	0.0
Incr Delay (d2), s/veh				0.3	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				7.0	0.0	7.3	0.0	2.8	2.9	3.0	0.0	0.0
LnGrp LOS				A	A	A	A	A	A	A	A	A
Approach Vol, veh/h					28			98			138	
Approach Delay, s/veh					7.2			2.8			3.0	
Approach LOS					A			A			A	

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		10.5				10.5		5.3				
Change Period (Y+Rc), s		4.0				4.0		4.0				
Max Green Setting (Gmax), s		36.0				36.0		36.0				
Max Q Clear Time (g_c+I1), s		2.3				2.7		2.2				
Green Ext Time (p_c), s		0.4				0.6		0.2				

Intersection Summary		
HCM 6th Ctrl Delay	3.4	
HCM 6th LOS	A	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	140	15	95	40	0	0	0	0	110	780	10
Future Volume (veh/h)	0	140	15	95	40	0	0	0	0	110	780	10
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.99		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1870	0				1900	1885	1811
Adj Flow Rate, veh/h	0	173	19	117	49	0				136	963	12
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81				0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	2	0				0	1	6
Cap, veh/h	0	502	55	366	561	0				361	2735	870
Arrive On Green	0.00	0.30	0.30	0.30	0.30	0.00				0.57	0.59	0.59
Sat Flow, veh/h	0	1673	184	1199	1870	0				615	4670	1486
Grp Volume(v), veh/h	0	0	192	117	49	0				410	689	12
Grp Sat Flow(s),veh/h/ln	0	0	1857	1199	1870	0				1854	1716	1486
Q Serve(g_s), s	0.0	0.0	5.6	5.9	1.3	0.0				8.3	7.3	0.2
Cycle Q Clear(g_c), s	0.0	0.0	5.6	11.6	1.3	0.0				8.3	7.3	0.2
Prop In Lane	0.00		0.10	1.00		0.00				0.33		1.00
Lane Grp Cap(c), veh/h	0	0	557	366	561	0				1086	2010	870
V/C Ratio(X)	0.00	0.00	0.34	0.32	0.09	0.00				0.38	0.34	0.01
Avail Cap(c_a), veh/h	0	0	557	366	561	0				1086	2010	870
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.96	0.96	0.96	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	19.1	23.6	17.6	0.0				7.8	7.5	6.1
Incr Delay (d2), s/veh	0.0	0.0	1.6	2.2	0.3	0.0				1.0	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	2.5	1.8	0.6	0.0				3.0	2.4	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	20.7	25.8	17.9	0.0				8.8	8.0	6.1
LnGrp LOS	A	A	C	C	B	A				A	A	A
Approach Vol, veh/h		192			166						1111	
Approach Delay, s/veh		20.7			23.5						8.3	
Approach LOS		C			C						A	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	45.0	25.0	25.0
Change Period (Y+Rc), s	* 4.8	4.0	4.0
Max Green Setting (Gmax), s	* 40	21.0	21.0
Max Q Clear Time (g_c+I1), s	10.3	7.6	13.6
Green Ext Time (p_c), s	2.0	0.2	0.1

Intersection Summary	
HCM 6th Ctrl Delay	11.6
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	190	0	0	90	50	45	875	190	0	0	0
Future Volume (veh/h)	60	190	0	0	90	50	45	875	190	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		0.97	1.00		0.94			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1870	1870	1885	1900			
Adj Flow Rate, veh/h	66	209	0	0	99	55	49	962	209			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91			
Percent Heavy Veh, %	0	0	0	0	0	2	2	1	0			
Cap, veh/h	372	543	0	0	324	180	143	2987	889			
Arrive On Green	0.19	0.19	0.00	0.00	0.29	0.29	0.59	0.59	0.59			
Sat Flow, veh/h	1238	1900	0	0	1132	629	242	5062	1506			
Grp Volume(v), veh/h	66	209	0	0	0	154	379	632	209			
Grp Sat Flow(s),veh/h/ln	1238	1900	0	0	0	1761	1873	1716	1506			
Q Serve(g_s), s	3.3	6.7	0.0	0.0	0.0	4.8	7.3	6.5	4.6			
Cycle Q Clear(g_c), s	8.1	6.7	0.0	0.0	0.0	4.8	7.3	6.5	4.6			
Prop In Lane	1.00		0.00	0.00		0.36	0.13		1.00			
Lane Grp Cap(c), veh/h	372	543	0	0	0	503	1105	2024	889			
V/C Ratio(X)	0.18	0.38	0.00	0.00	0.00	0.31	0.34	0.31	0.24			
Avail Cap(c_a), veh/h	372	543	0	0	0	503	1105	2024	889			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.95	0.95	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	25.6	22.9	0.0	0.0	0.0	19.6	7.4	7.2	6.8			
Incr Delay (d2), s/veh	1.0	2.0	0.0	0.0	0.0	1.6	0.8	0.4	0.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.1	3.3	0.0	0.0	0.0	2.1	2.7	2.1	1.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.6	24.9	0.0	0.0	0.0	21.1	8.2	7.6	7.5			
LnGrp LOS	C	C	A	A	A	C	A	A	A			
Approach Vol, veh/h		275			154			1220				
Approach Delay, s/veh		25.3			21.1			7.8				
Approach LOS		C			C			A				

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		46.0		24.0				24.0				
Change Period (Y+Rc), s		* 4.7		4.0				4.0				
Max Green Setting (Gmax), s		* 41		20.0				20.0				
Max Q Clear Time (g_c+I1), s		9.3		10.1				6.8				
Green Ext Time (p_c), s		1.3		0.2				0.1				

Intersection Summary		
HCM 6th Ctrl Delay	11.9	
HCM 6th LOS	B	

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection ID and Name	use dropdown NB PhasingType	use dropdown SB PhasingType	use dropdown EB PhasingType	use dropdown WB PhasingType	Cycle Length	Lost Time	use dropdow Use Overlap Calculator	use dropdow NBR Overla	use dropdow SBR Overlap	use dropdow EBR Overlap	use dropdow WBR Overla	use dropdo
6: SE Water Avenue & SE Clay Street	Permitted	Permitted		Permitted	80	8	No					
7: SE Martin Luther King Jr. Boulevard & SE Stark Street	Protected	Protected	Protected	Protected	70	8	No	No	No	No	No	
8: SE Grand Avenue & SE Stark Street/ SE 9 Protected		Protected	Protected		70	8	No					

BEGIN CALCULATIONS	1 EBL	3 EBT	4 EBR	5 WBL	6 WBT	7 WBR	8 NBL	9 NBT	10 NBR	11 SBL	12 SBT	13 SBR	14
Adj Flow Rate, veh/h	0	0	0	11	0	17	0	46	52	52	86	0	Protected
Sat Flow, veh/h	0	0	0	1810	0	1605	0	1900	1570	369	1367	0	Permitted or Split
V/S	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.02	0.03	0.14	0.06	0.00	selected phasing
Adj Flow Rate, veh/h	0	173	19	117	49	0	0	0	0	136	963	12	Protected
Sat Flow, veh/h	0	1673	184	1199	1870	0	0	0	0	615	4670	1486	Permitted or Split
V/S	0.00	0.10	0.10	0.10	0.03	0.00	0.00	0.00	0.00	0.22	0.21	0.01	selected phasing
Adj Flow Rate, veh/h	66	209	0	0	99	55	49	962	209	0	0	0	Protected
Sat Flow, veh/h	1238	1900	0	0	1132	629	242	5062	1506	0	0	0	Permitted or Split
V/S	0.05	0.11	0.00	0.00	0.09	0.09	0.20	0.19	0.14	0.00	0.00	0.00	selected phasing
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	0	0	0	0	0	Protected
Sat Flow, veh/h	0	0	0	0	0	0	0	0	0	0	0	0	Permitted or Split
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	10	0	100	25	0
Future Vol, veh/h	10	10	0	100	25	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	1	0	0
Mvmt Flow	12	12	0	116	29	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	145	29	-	0	-	0
Stage 1	29	-	-	-	-	-
Stage 2	116	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	852	1052	0	-	-	0
Stage 1	999	-	0	-	-	0
Stage 2	914	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	852	1052	-	-	-	-
Mov Cap-2 Maneuver	852	-	-	-	-	-
Stage 1	999	-	-	-	-	-
Stage 2	914	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	941	-
HCM Lane V/C Ratio	-	0.025	-
HCM Control Delay (s)	-	8.9	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	75	65	115	5	0	5	0	20	5	5	30	0
Future Vol, veh/h	75	65	115	5	0	5	0	20	5	5	30	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	1	0	0	0	0	0	0	0	0	0
Mvmt Flow	86	75	132	6	0	6	0	23	6	6	34	0
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	8.2	7.3	7.7	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	0%	54%	0%	50%	14%
Vol Thru, %	80%	46%	0%	0%	86%
Vol Right, %	20%	0%	100%	50%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	25	140	115	10	35
LT Vol	0	75	0	5	5
Through Vol	20	65	0	0	30
RT Vol	5	0	115	5	0
Lane Flow Rate	29	161	132	11	40
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.036	0.219	0.144	0.014	0.052
Departure Headway (Hd)	4.493	4.895	3.927	4.249	4.626
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	801	731	907	846	778
Service Time	2.497	2.649	1.679	2.257	2.63
HCM Lane V/C Ratio	0.036	0.22	0.146	0.013	0.051
HCM Control Delay	7.7	9	7.3	7.3	7.9
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.1	0.8	0.5	0	0.2

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	5	10	5	5	5	5	20	5	10	80	10
Future Vol, veh/h	5	5	10	5	5	5	5	20	5	10	80	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	8	0	0	1	0
Mvmt Flow	6	6	12	6	6	6	6	24	6	12	98	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	173	170	104	176	173	27	110	0	0	30	0	0
Stage 1	128	128	-	39	39	-	-	-	-	-	-	-
Stage 2	45	42	-	137	134	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	794	727	956	791	724	1054	1493	-	-	1596	-	-
Stage 1	881	794	-	981	866	-	-	-	-	-	-	-
Stage 2	974	864	-	871	789	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	777	718	956	769	715	1054	1493	-	-	1596	-	-
Mov Cap-2 Maneuver	777	718	-	769	715	-	-	-	-	-	-	-
Stage 1	877	788	-	977	863	-	-	-	-	-	-	-
Stage 2	958	861	-	846	783	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	9.5	1.2	0.7
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1493	-	-	838	822	1596	-	-
HCM Lane V/C Ratio	0.004	-	-	0.029	0.022	0.008	-	-
HCM Control Delay (s)	7.4	0	-	9.4	9.5	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	5	5	10	5	5	5	20	5	15	75	5
Future Vol, veh/h	5	5	5	10	5	5	5	20	5	15	75	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	1	0
Mvmt Flow	6	6	6	12	6	6	6	24	6	18	89	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	173	170	92	173	170	27	95	0	0	30	0	0
Stage 1	128	128	-	39	39	-	-	-	-	-	-	-
Stage 2	45	42	-	134	131	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	794	727	971	794	727	1054	1512	-	-	1596	-	-
Stage 1	881	794	-	981	866	-	-	-	-	-	-	-
Stage 2	974	864	-	874	792	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	775	715	971	775	715	1054	1512	-	-	1596	-	-
Mov Cap-2 Maneuver	775	715	-	775	715	-	-	-	-	-	-	-
Stage 1	877	784	-	977	863	-	-	-	-	-	-	-
Stage 2	958	861	-	852	782	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.6	9.6	1.2	1.1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1512	-	-	807	812	1596	-	-
HCM Lane V/C Ratio	0.004	-	-	0.022	0.029	0.011	-	-
HCM Control Delay (s)	7.4	0	-	9.6	9.6	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

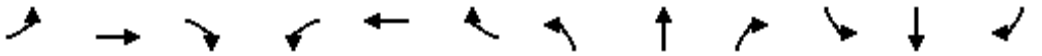
Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	0	0	0	0	0	10	15	5	5	55	30
Future Vol, veh/h	5	0	0	0	0	0	10	15	5	5	55	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	6	0	0	0	0	0	11	17	6	6	63	34

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	134	137	80	97	0	0	23	0	0
Stage 1	92	92	-	-	-	-	-	-	-
Stage 2	42	45	-	-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	864	758	986	1509	-	-	1605	-	-
Stage 1	937	823	-	-	-	-	-	-	-
Stage 2	986	861	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	854	0	986	1509	-	-	1605	-	-
Mov Cap-2 Maneuver	854	0	-	-	-	-	-	-	-
Stage 1	930	0	-	-	-	-	-	-	-
Stage 2	982	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	2.5	0.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1509	-	-	854	-	1605	-	-
HCM Lane V/C Ratio	0.008	-	-	0.007	-	0.004	-	-
HCM Control Delay (s)	7.4	0	-	9.2	0	7.3	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	5	0	10	0	20	15	30	25	0
Future Volume (veh/h)	0	0	0	5	0	10	0	20	15	30	25	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1900	1900	1900	1796	0
Adj Flow Rate, veh/h				6	0	12	0	24	18	37	30	0
Peak Hour Factor				0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %				0	0	0	0	0	0	0	7	0
Cap, veh/h				88	0	77	0	486	412	672	205	0
Arrive On Green				0.05	0.00	0.05	0.00	0.26	0.26	0.26	0.26	0.00
Sat Flow, veh/h				1810	0	1577	0	1900	1610	726	802	0
Grp Volume(v), veh/h				6	0	12	0	24	18	67	0	0
Grp Sat Flow(s),veh/h/ln				1810	0	1577	0	1900	1610	1527	0	0
Q Serve(g_s), s				0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0
Cycle Q Clear(g_c), s				0.0	0.0	0.1	0.0	0.1	0.1	0.3	0.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.55		0.00
Lane Grp Cap(c), veh/h				88	0	77	0	486	412	877	0	0
V/C Ratio(X)				0.07	0.00	0.16	0.00	0.05	0.04	0.08	0.00	0.00
Avail Cap(c_a), veh/h				5665	0	4938	0	5948	5041	5164	0	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh				5.2	0.0	5.2	0.0	3.2	3.2	3.3	0.0	0.0
Incr Delay (d2), s/veh				0.5	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				5.7	0.0	6.6	0.0	3.2	3.2	3.3	0.0	0.0
LnGrp LOS				A	A	A	A	A	A	A	A	A
Approach Vol, veh/h					18			42			67	
Approach Delay, s/veh					6.3			3.2			3.3	
Approach LOS					A			A			A	

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		6.9				6.9		4.6				
Change Period (Y+Rc), s		4.0				4.0		4.0				
Max Green Setting (Gmax), s		36.0				36.0		36.0				
Max Q Clear Time (g_c+I1), s		2.1				2.3		2.1				
Green Ext Time (p_c), s		0.1				0.2		0.1				

Intersection Summary		
HCM 6th Ctrl Delay	3.7	
HCM 6th LOS	A	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	75	10	70	40	0	0	0	0	85	600	15
Future Volume (veh/h)	0	75	10	70	40	0	0	0	0	85	600	15
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1885	1900	1767	0				1900	1885	1900
Adj Flow Rate, veh/h	0	80	11	74	43	0				90	638	16
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	1	0	9	0				0	1	0
Cap, veh/h	0	489	67	452	530	0				359	2736	916
Arrive On Green	0.00	0.30	0.30	0.30	0.30	0.00				0.57	0.59	0.59
Sat Flow, veh/h	0	1628	224	1323	1767	0				614	4672	1564
Grp Volume(v), veh/h	0	0	91	74	43	0				272	456	16
Grp Sat Flow(s),veh/h/ln	0	0	1852	1323	1767	0				1854	1716	1564
Q Serve(g_s), s	0.0	0.0	2.5	3.1	1.2	0.0				5.0	4.4	0.3
Cycle Q Clear(g_c), s	0.0	0.0	2.5	5.6	1.2	0.0				5.0	4.4	0.3
Prop In Lane	0.00		0.12	1.00		0.00				0.33		1.00
Lane Grp Cap(c), veh/h	0	0	556	452	530	0				1086	2010	916
V/C Ratio(X)	0.00	0.00	0.16	0.16	0.08	0.00				0.25	0.23	0.02
Avail Cap(c_a), veh/h	0	0	556	452	530	0				1086	2010	916
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.99	0.97	0.97	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	18.0	20.1	17.6	0.0				7.1	6.9	6.1
Incr Delay (d2), s/veh	0.0	0.0	0.6	0.8	0.3	0.0				0.6	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.1	1.0	0.5	0.0				1.8	1.4	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	18.7	20.8	17.9	0.0				7.7	7.2	6.1
LnGrp LOS	A	A	B	C	B	A				A	A	A
Approach Vol, veh/h		91			117						744	
Approach Delay, s/veh		18.7			19.8						7.3	
Approach LOS		B			B						A	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	45.0	25.0	25.0
Change Period (Y+Rc), s	* 4.8	4.0	4.0
Max Green Setting (Gmax), s	* 40	21.0	21.0
Max Q Clear Time (g_c+I1), s	7.0	4.5	7.6
Green Ext Time (p_c), s	1.2	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	9.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	120	0	0	80	60	30	610	85	0	0	0
Future Volume (veh/h)	40	120	0	0	80	60	30	610	85	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	0.98		1.00	1.00		0.96	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1885	1900	1900	1885	1900			
Adj Flow Rate, veh/h	43	128	0	0	85	64	32	649	90			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	0	0	0	0	1	0	0	1	0			
Cap, veh/h	372	543	0	0	280	211	138	2991	940			
Arrive On Green	0.09	0.09	0.00	0.00	0.29	0.29	0.59	0.59	0.59			
Sat Flow, veh/h	1236	1900	0	0	980	738	235	5070	1592			
Grp Volume(v), veh/h	43	128	0	0	0	149	256	425	90			
Grp Sat Flow(s),veh/h/ln	1236	1900	0	0	0	1717	1873	1716	1592			
Q Serve(g_s), s	2.3	4.4	0.0	0.0	0.0	4.8	4.5	4.1	1.7			
Cycle Q Clear(g_c), s	7.0	4.4	0.0	0.0	0.0	4.8	4.5	4.1	1.7			
Prop In Lane	1.00		0.00	0.00		0.43	0.13		1.00			
Lane Grp Cap(c), veh/h	372	543	0	0	0	491	1105	2024	940			
V/C Ratio(X)	0.12	0.24	0.00	0.00	0.00	0.30	0.23	0.21	0.10			
Avail Cap(c_a), veh/h	372	543	0	0	0	491	1105	2024	940			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.99	0.99	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	28.1	24.6	0.0	0.0	0.0	19.6	6.8	6.7	6.2			
Incr Delay (d2), s/veh	0.6	1.0	0.0	0.0	0.0	1.6	0.5	0.2	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.8	2.1	0.0	0.0	0.0	2.0	1.6	1.3	0.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.7	25.6	0.0	0.0	0.0	21.1	7.3	7.0	6.4			
LnGrp LOS	C	C	A	A	A	C	A	A	A			
Approach Vol, veh/h		171			149			771				
Approach Delay, s/veh		26.4			21.1			7.0				
Approach LOS		C			C			A				

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	46.0	24.0	24.0
Change Period (Y+Rc), s	* 4.7	4.0	4.0
Max Green Setting (Gmax), s	* 41	20.0	20.0
Max Q Clear Time (g_c+I1), s	6.5	9.0	6.8
Green Ext Time (p_c), s	0.8	0.1	0.1

Intersection Summary	
HCM 6th Ctrl Delay	12.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

	use dropdown	use dropdown	use dropdown	use dropdown			use dropdown	use dropdow	use dropdow	use dropdow	use dropdow	BEGIN	1	3	4	5	6	7	8	9	10	11	12	13	14		Critical Flow Calculator						Overlap Critical Flow Calculator														
Intersection ID and Name	**NB PhasingType**	**SB PhasingType**	**EB PhasingType**	**WB PhasingType**	**Cycle Length**	**Lost Time**	**Use Overlap Calculator**	**NBR Overla**	**SBR Overlap**	**EBR Overlap**	**WBR Overla**	CALCULATIONS		**EBL**	**EBT**	**EBR**	**WBL**	**WBT**	**WBR**	**NBL**	**NBT**	**NBR**	**SBL**	**SBT**	**SBR**		**WBL/EBT**	**EBL/WBT**	**NBL/SBT**	**SBL/NBT**	**V/S E/W**	**V/S N/S**		**NBR OV**	**NB OV V/S**	**SBR OV**	**SB OV V/S**	**EBR OV**	**EB OV V/S**	**WBR OV**	**WB OV V/S**	**V/S Overlap**		**Intersection V/C**	**HCM 6th Ctrl Delay**	**HCM 6th LOS**	**Synchro ID**
6: SE Water Avenue & SE Clay Street	Permitted	Permitted		Permitted	80	8	No						Adj Flow Rate, veh/h	0	0	0	6	0	12	0	24	18	37	30	0	Protected	0.00	0.01	0.04	0.06			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h	0	0	0	1810	0	1577	0	1900	1610	726	802	0	Permitted or Split	0.00	0.01	0.05	0.01			Right Turn Approach Phasing	Permitted	0.00	Permitted	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.05	0.04	0.00	selected phasing	0.00	0.01	0.05	0.01	0.01	0.05	Overlap Approach Phasing	0.00	0.01	0.00	0.01	Permitted	0.04	Permitted	0.04	N/A		**0.07**	**4**	**A**	6
7: SE Martin Luther King Jr. Boulevard & SE Stark Street		Protected	Protected	Protected	70	8	No	No	No	No	No		Adj Flow Rate, veh/h	0	80	11	74	43	0	0	0	0	90	638	16	Protected	0.11	0.02	0.14	0.15			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h	0	1628	224	1323	1767	0	0	0	0	614	4672	1564	Permitted or Split	0.05	0.06	0.15	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	Protected	0.06	Protected	0.06	No OV					
													V/S	0.00	0.05	0.05	0.06	0.02	0.00	0.00	0.00	0.00	0.15	0.14	0.01	selected phasing	0.11	0.02	0.15	0.15	0.11	0.15	Overlap Approach Phasing	Protected	0.05	Protected	0.05	0.00	0.14	0.00	0.14	N/A		**0.28**	**10**	**A**	7
8: SE Grand Avenue & SE Stark Street/ SE S	Protected		Protected	Protected	70	8	No						Adj Flow Rate, veh/h	43	128	0	0	85	64	32	649	90	0	0	0	Protected	0.07	0.12	0.14	0.13			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h	1236	1900	0	0	980	738	235	5070	1592	0	0	0	Permitted or Split	0.07	0.09	0.00	0.14			Right Turn Approach Phasing	Protected	0.14	Protected	0.14	Protected	0.03	Protected	0.03	No OV					
													V/S	0.03	0.07	0.00	0.00	0.09	0.09	0.14	0.13	0.06	0.00	0.00	0.00	selected phasing	0.07	0.12	0.14	0.14	0.12	0.14	Overlap Approach Phasing	Protected	0.09	Protected	0.09	Protected	0.13	Protected	0.13	N/A		**0.29**	**12**	**B**	8
													Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
													Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
													Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
													Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
													Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
													Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
													Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
							No						Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
							No						Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
							No						Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
							No						Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
							No						Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
							No						Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
							No						Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
							No						Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
							No						Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
							No						Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	

List of Phasing Types
Protected
Permitted
Split

List of Overlap Types
Yes
No

Sheet Description:
This sheet reads in the adjusted flow rate and the saturation flow rate from Synchro and divides them to calculated the V/S for each movement.
The critical flow calculator calculates the critical v/s for each conflicting phase pair.
for protected phases, this v/s is the left turn v/s plus the max of the opposing movement v/s
for the permitted and split phases, this v/s is the max of the three movement v/s
The next step selects the proper v/s based on phasing provided
V/S by east-west and north-south is selected by taking the max of the phase pairs or by adding them (if split phasing)
If overlap calculator was selected in input section and overlap phases were indicated, then overlap v/s for intersection is calculated. See details below
If the right turn v/s is greater than the through v/s for the right turn overlap approach, then the right turn is assumed the critical movement and intersection v/c calc will use the v/s overlap instead of approach v/s
The final step in v/c calculation uses the approach v/s ratios, cycle length, and lost time to calculate overall intersection v/c
Delay and LOS are read directly from the HCM 6 report

Overlap Calculator Details
Overlap calculator reads in whether an overlap phase is in use and what type of phasing is associated with the right turn approach and the overlapped approach
V/S is read in for right turn movement, and remaining approaches from previous calculations
-right turn overlap v/s is just the v/s for the right turn movement (i.e. NBR)
-right turn approach v/s is the critical v/s associated with the right turn approaches (i.e. NB/SB) and is calculated differently for protected vs split
-overlap approach v/s is the critical v/s associated with the overlap approaches (i.e. EB/WB) and is calculated differently for protected vs split phasing
The v/s overlap column sums the 3 v/s values for the overlap phasing to get the total v/s overlap to be used in the v/c calculation
If there are overlaps for both approaches (i.e. N/S or E/W), the v/s overlap will use the greater of the two for most conservative approach
Use Overlap Calculator' must be enabled and 'Use OV V/S' must be showing in V/S Overlap column in order for overlap v/s to be used in final v/c calculation

SECTION 13: NO-BUILD QUEUING REPORTS

Intersection: 1: SE Water Avenue & SE Morrison Bridge Off Ramp

Movement	EB	NB
Directions Served	LR	T
Maximum Queue (ft)	34	35
Average Queue (ft)	16	4
95th Queue (ft)	42	21
Link Distance (ft)	547	80
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: SE Water Avenue & I-5 Off Ramp/SE Yamhill Street

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	TR	LT
Maximum Queue (ft)	104	108	35	82	52
Average Queue (ft)	52	38	18	25	27
95th Queue (ft)	80	75	45	53	51
Link Distance (ft)	621		232	446	80
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		300			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: SE Water Avenue & SE Salmon Street

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	33	35
Average Queue (ft)	4	6
95th Queue (ft)	22	26
Link Distance (ft)	306	219
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: SE Water Avenue & SE Main Street

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	35	35	35
Average Queue (ft)	9	24	2
95th Queue (ft)	32	49	17
Link Distance (ft)	331	220	208
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: SE Water Avenue & Hawthorne Bridge Off Ramp/SE Hawthorne Boulevard

Movement	EB	NB	SB
Directions Served	LT	LTR	LTR
Maximum Queue (ft)	33	35	31
Average Queue (ft)	10	6	1
95th Queue (ft)	33	27	11
Link Distance (ft)	577	240	440
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: SE Water Avenue & SE Clay Street

Movement	WB	WB	NB	NB	SB
Directions Served	L	TR	T	R	LT
Maximum Queue (ft)	29	51	26	32	86
Average Queue (ft)	3	6	3	5	15
95th Queue (ft)	17	25	16	24	54
Link Distance (ft)		199	369		240
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	200			175	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: SE Martin Luther King Jr. Boulevard & SE Stark Street

Movement	EB	WB	WB	SB	SB	SB	SB
Directions Served	TR	L	T	LT	T	T	R
Maximum Queue (ft)	189	99	216	280	280	214	34
Average Queue (ft)	59	75	87	200	127	34	7
95th Queue (ft)	133	117	222	357	269	118	28
Link Distance (ft)	698		212	260	260	260	260
Upstream Blk Time (%)			8	8	1		
Queuing Penalty (veh)			8	0	0		
Storage Bay Dist (ft)		75					
Storage Blk Time (%)		27	1				
Queuing Penalty (veh)		7	1				

Intersection: 8: SE Grand Avenue & SE Stark Street/ SE Stark Street

Movement	EB	EB	WB	NB	NB	NB	NB
Directions Served	L	T	TR	LT	T	T	R
Maximum Queue (ft)	74	230	342	143	149	145	92
Average Queue (ft)	41	143	122	73	86	66	42
95th Queue (ft)	90	233	253	125	140	137	87
Link Distance (ft)		212	460	3150	3150	3150	3150
Upstream Blk Time (%)		8					
Queuing Penalty (veh)		19					
Storage Bay Dist (ft)	50						
Storage Blk Time (%)	11	52					
Queuing Penalty (veh)	18	29					

Zone Summary

Zone wide Queuing Penalty: 82

Intersection: 1: SE Water Avenue & SE Morrison Bridge Off Ramp

Movement	EB
Directions Served	LR
Maximum Queue (ft)	33
Average Queue (ft)	5
95th Queue (ft)	25
Link Distance (ft)	547
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: SE Water Avenue & I-5 Off Ramp/SE Yamhill Street

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	TR	LT
Maximum Queue (ft)	31	27	35	28	34
Average Queue (ft)	21	13	9	11	15
95th Queue (ft)	40	31	33	33	42
Link Distance (ft)	621		232	446	80
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		300			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: SE Water Avenue & SE Salmon Street

Movement	EB	SB
Directions Served	LTR	LTR
Maximum Queue (ft)	35	35
Average Queue (ft)	5	2
95th Queue (ft)	23	17
Link Distance (ft)	306	446
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: SE Water Avenue & SE Main Street

Movement	EB
Directions Served	LTR
Maximum Queue (ft)	35
Average Queue (ft)	2
95th Queue (ft)	13
Link Distance (ft)	331
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: SE Water Avenue & Hawthorne Bridge Off Ramp/SE Hawthorne Boulevard

Movement	NB
Directions Served	LTR
Maximum Queue (ft)	35
Average Queue (ft)	1
95th Queue (ft)	12
Link Distance (ft)	240
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 6: SE Water Avenue & SE Clay Street

Movement	WB	NB	NB
Directions Served	TR	T	R
Maximum Queue (ft)	51	22	32
Average Queue (ft)	5	1	1
95th Queue (ft)	27	7	11
Link Distance (ft)	199	369	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			175
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: SE Martin Luther King Jr. Boulevard & SE Stark Street

Movement	EB	WB	WB	SB	SB	SB	SB
Directions Served	TR	L	T	LT	T	T	R
Maximum Queue (ft)	78	80	35	228	182	34	43
Average Queue (ft)	9	21	1	130	59	1	3
95th Queue (ft)	40	55	12	225	150	11	19
Link Distance (ft)	698		212	260	260	260	260
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		75					
Storage Blk Time (%)		1					
Queuing Penalty (veh)		0					

Intersection: 8: SE Grand Avenue & SE Stark Street/ SE Stark Street

Movement	EB	EB	WB	NB	NB	NB	NB
Directions Served	L	T	TR	LT	T	T	R
Maximum Queue (ft)	74	110	80	61	78	35	35
Average Queue (ft)	24	46	30	43	31	8	4
95th Queue (ft)	61	87	64	72	74	30	21
Link Distance (ft)		212	460	3150	3150	3150	3150
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	50						
Storage Blk Time (%)	7	14					
Queuing Penalty (veh)	3	2					

Zone Summary

Zone wide Queuing Penalty: 5

Intersection: 1: SE Water Avenue & SE Morrison Bridge Off Ramp

Movement	EB
Directions Served	LR
Maximum Queue (ft)	34
Average Queue (ft)	19
95th Queue (ft)	45
Link Distance (ft)	547
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: SE Water Avenue & I-5 Off Ramp/SE Yamhill Street

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	TR	LT
Maximum Queue (ft)	81	79	57	61	77
Average Queue (ft)	46	34	16	19	34
95th Queue (ft)	72	58	45	43	56
Link Distance (ft)	621		232	446	80
Upstream Blk Time (%)					0
Queuing Penalty (veh)					0
Storage Bay Dist (ft)		300			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: SE Water Avenue & SE Salmon Street

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	35	35	35
Average Queue (ft)	6	13	1
95th Queue (ft)	27	40	12
Link Distance (ft)	306	219	208
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: SE Water Avenue & SE Main Street

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	35	55	31
Average Queue (ft)	9	18	1
95th Queue (ft)	34	46	10
Link Distance (ft)	331	220	208
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: SE Water Avenue & Hawthorne Bridge Off Ramp/SE Hawthorne Boulevard

Movement	EB	NB	SB
Directions Served	LT	LTR	LTR
Maximum Queue (ft)	66	56	27
Average Queue (ft)	12	8	1
95th Queue (ft)	41	34	9
Link Distance (ft)	577	240	440
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: SE Water Avenue & SE Clay Street

Movement	WB	WB	NB	NB	SB
Directions Served	L	TR	T	R	LT
Maximum Queue (ft)	51	115	27	28	76
Average Queue (ft)	4	49	2	3	14
95th Queue (ft)	23	118	14	16	50
Link Distance (ft)		199	369		240
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	200			175	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: SE Martin Luther King Jr. Boulevard & SE Stark Street

Movement	EB	WB	WB	SB	SB	SB
Directions Served	TR	L	T	LT	T	T
Maximum Queue (ft)	373	100	212	280	276	167
Average Queue (ft)	107	62	60	152	73	24
95th Queue (ft)	231	111	165	258	164	80
Link Distance (ft)	698		212	260	260	260
Upstream Blk Time (%)			2	1	0	
Queuing Penalty (veh)			3	0	0	
Storage Bay Dist (ft)		75				
Storage Blk Time (%)		17	6			
Queuing Penalty (veh)		7	5			

Intersection: 8: SE Grand Avenue & SE Stark Street/ SE Stark Street

Movement	EB	EB	WB	NB	NB	NB	NB
Directions Served	L	T	TR	LT	T	T	R
Maximum Queue (ft)	74	224	257	128	114	133	84
Average Queue (ft)	39	146	110	71	68	49	34
95th Queue (ft)	80	246	210	114	114	112	76
Link Distance (ft)		212	460	3150	3150	3150	3150
Upstream Blk Time (%)		6					
Queuing Penalty (veh)		17					
Storage Bay Dist (ft)	50						
Storage Blk Time (%)	12	45					
Queuing Penalty (veh)	22	27					

Zone Summary

Zone wide Queuing Penalty: 81

Intersection: 1: SE Water Avenue & SE Morrison Bridge Off Ramp

Movement	EB
Directions Served	LR
Maximum Queue (ft)	33
Average Queue (ft)	22
95th Queue (ft)	46
Link Distance (ft)	547
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: SE Water Avenue & I-5 Off Ramp/SE Yamhill Street

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	TR	LT
Maximum Queue (ft)	54	61	35	28	34
Average Queue (ft)	31	28	14	14	24
95th Queue (ft)	46	43	41	36	48
Link Distance (ft)	621		232	446	80
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		300			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: SE Water Avenue & SE Salmon Street

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	35	35
Average Queue (ft)	24	14
95th Queue (ft)	48	41
Link Distance (ft)	306	219
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: SE Water Avenue & SE Main Street

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	58	35	35
Average Queue (ft)	18	13	2
95th Queue (ft)	48	38	17
Link Distance (ft)	331	220	208
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: SE Water Avenue & Hawthorne Bridge Off Ramp/SE Hawthorne Boulevard

Movement	EB
Directions Served	LT
Maximum Queue (ft)	33
Average Queue (ft)	7
95th Queue (ft)	28
Link Distance (ft)	577
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 6: SE Water Avenue & SE Clay Street

Movement	WB	WB	NB	SB
Directions Served	L	TR	T	LT
Maximum Queue (ft)	70	25	26	35
Average Queue (ft)	10	3	1	4
95th Queue (ft)	43	15	10	21
Link Distance (ft)		199	369	240
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	200			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: SE Martin Luther King Jr. Boulevard & SE Stark Street

Movement	EB	WB	WB	SB	SB	SB	SB
Directions Served	TR	L	T	LT	T	T	R
Maximum Queue (ft)	80	93	60	232	150	34	34
Average Queue (ft)	41	51	21	131	58	9	2
95th Queue (ft)	75	99	56	205	120	32	16
Link Distance (ft)	698		212	260	260	260	260
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		75					
Storage Blk Time (%)		10	0				
Queuing Penalty (veh)		4	0				

Intersection: 8: SE Grand Avenue & SE Stark Street/ SE Stark Street

Movement	EB	EB	WB	NB	NB	NB	NB
Directions Served	L	T	TR	LT	T	T	R
Maximum Queue (ft)	74	204	252	109	134	117	68
Average Queue (ft)	47	111	104	48	58	24	12
95th Queue (ft)	89	208	195	87	108	79	42
Link Distance (ft)		212	460	3150	3150	3150	3150
Upstream Blk Time (%)		0					
Queuing Penalty (veh)		0					
Storage Bay Dist (ft)	50						
Storage Blk Time (%)	15	40					
Queuing Penalty (veh)	19	16					

Zone Summary

Zone wide Queuing Penalty: 39

SECTION 14: BUILD INTERSECTION REPORTS

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	40	0	310	105	0
Future Vol, veh/h	10	40	0	310	105	0
Conflicting Peds, #/hr	14	3	22	0	0	22
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	0	1	0	0	1	0
Mvmt Flow	12	49	0	383	130	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	527	133	-	0	-	0
Stage 1	130	-	-	-	-	-
Stage 2	397	-	-	-	-	-
Critical Hdwy	6.4	6.21	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.309	-	-	-	-
Pot Cap-1 Maneuver	515	919	0	-	-	0
Stage 1	901	-	0	-	-	0
Stage 2	683	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	515	916	-	-	-	-
Mov Cap-2 Maneuver	515	-	-	-	-	-
Stage 1	901	-	-	-	-	-
Stage 2	683	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	793	-
HCM Lane V/C Ratio	-	0.078	-
HCM Control Delay (s)	-	9.9	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.3	-

Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	185	105	275	10	0	15	0	110	20	15	130	0
Future Vol, veh/h	185	105	275	10	0	15	0	110	20	15	130	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	1	0	2	0	0	0	0	2	0	0	0	0
Mvmt Flow	197	112	293	11	0	16	0	117	21	16	138	0
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	11.9	8.5	9.9	10.2
HCM LOS	B	A	A	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	0%	64%	0%	40%	10%
Vol Thru, %	85%	36%	0%	0%	90%
Vol Right, %	15%	0%	100%	60%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	130	290	275	25	145
LT Vol	0	185	0	10	15
Through Vol	110	105	0	0	130
RT Vol	20	0	275	15	0
Lane Flow Rate	138	309	293	27	154
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.207	0.483	0.373	0.039	0.233
Departure Headway (Hd)	5.398	5.633	4.589	5.271	5.449
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	658	636	775	684	653
Service Time	3.483	3.406	2.362	3.271	3.533
HCM Lane V/C Ratio	0.21	0.486	0.378	0.039	0.236
HCM Control Delay	9.9	13.6	10.1	8.5	10.2
HCM Lane LOS	A	B	B	A	B
HCM 95th-tile Q	0.8	2.6	1.7	0.1	0.9

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	5	40	5	10	0	145	30	30	290	5
Future Vol, veh/h	5	0	5	40	5	10	0	145	30	30	290	5
Conflicting Peds, #/hr	1	0	2	2	0	1	2	0	10	10	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	20	1	0
Mvmt Flow	6	0	6	47	6	12	0	169	35	35	337	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	609	626	344	612	612	198	345	0	0	214	0	0
Stage 1	412	412	-	197	197	-	-	-	-	-	-	-
Stage 2	197	214	-	415	415	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.3	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.38	-	-
Pot Cap-1 Maneuver	410	403	703	408	411	848	1225	-	-	1256	-	-
Stage 1	621	598	-	809	742	-	-	-	-	-	-	-
Stage 2	809	729	-	619	596	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	388	384	700	389	392	839	1223	-	-	1244	-	-
Mov Cap-2 Maneuver	388	384	-	389	392	-	-	-	-	-	-	-
Stage 1	620	576	-	801	735	-	-	-	-	-	-	-
Stage 2	791	722	-	591	574	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.4	14.8	0	0.7
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1223	-	-	499	431	1244	-	-
HCM Lane V/C Ratio	-	-	-	0.023	0.148	0.028	-	-
HCM Control Delay (s)	0	-	-	12.4	14.8	8	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.5	0.1	-	-

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	5	15	15	30	10	140	15	70	245	20
Future Vol, veh/h	5	0	5	15	15	30	10	140	15	70	245	20
Conflicting Peds, #/hr	1	0	5	5	0	1	3	0	11	11	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	6	0	6	18	18	36	12	167	18	83	292	24

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	701	693	312	689	696	188	319	0	0	196	0	0
Stage 1	473	473	-	211	211	-	-	-	-	-	-	-
Stage 2	228	220	-	478	485	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	356	369	733	363	368	859	1252	-	-	1389	-	-
Stage 1	576	562	-	796	731	-	-	-	-	-	-	-
Stage 2	779	725	-	572	555	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	305	334	727	332	333	849	1248	-	-	1374	-	-
Mov Cap-2 Maneuver	305	334	-	332	333	-	-	-	-	-	-	-
Stage 1	568	519	-	779	716	-	-	-	-	-	-	-
Stage 2	719	710	-	523	513	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.6	13.9	0.5	1.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1248	-	-	430	478	1374	-	-
HCM Lane V/C Ratio	0.01	-	-	0.028	0.149	0.061	-	-
HCM Control Delay (s)	7.9	0	-	13.6	13.9	7.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.5	0.2	-	-

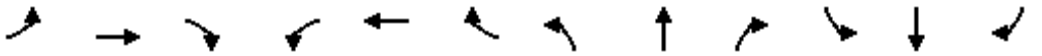
Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	55	10	10	0	0	0	10	100	5	15	145	115
Future Vol, veh/h	55	10	10	0	0	0	10	100	5	15	145	115
Conflicting Peds, #/hr	1	0	1	1	0	1	9	0	7	7	0	9
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	8	1	0
Mvmt Flow	75	14	14	0	0	0	14	137	7	21	199	158

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	499	508	288	366	0	0	151	0	0
Stage 1	329	329	-	-	-	-	-	-	-
Stage 2	170	179	-	-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2	4.1	-	-	4.18	-	-
Critical Hdwy Stg 1	5.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	2.2	-	-	2.272	-	-
Pot Cap-1 Maneuver	535	471	756	1204	-	-	1394	-	-
Stage 1	734	650	-	-	-	-	-	-	-
Stage 2	865	755	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	509	0	749	1194	-	-	1394	-	-
Mov Cap-2 Maneuver	509	0	-	-	-	-	-	-	-
Stage 1	718	0	-	-	-	-	-	-	-
Stage 2	842	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.1	0.7	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1194	-	-	509	749	1394	-	-
HCM Lane V/C Ratio	0.011	-	-	0.175	0.018	0.015	-	-
HCM Control Delay (s)	8.1	0	-	13.6	9.9	7.6	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.1	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	10	0	50	0	65	30	85	70	0
Future Volume (veh/h)	0	0	0	10	0	50	0	65	30	85	70	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		0.97	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1870	1900	1885	1900	0
Adj Flow Rate, veh/h				12	0	60	0	77	36	101	83	0
Peak Hour Factor				0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %				0	0	0	0	2	0	1	0	0
Cap, veh/h				331	0	286	0	769	641	558	379	0
Arrive On Green				0.18	0.00	0.18	0.00	0.41	0.41	0.41	0.41	0.00
Sat Flow, veh/h				1810	0	1565	0	1870	1558	670	920	0
Grp Volume(v), veh/h				12	0	60	0	77	36	184	0	0
Grp Sat Flow(s),veh/h/ln				1810	0	1565	0	1870	1558	1590	0	0
Q Serve(g_s), s				0.1	0.0	0.6	0.0	0.5	0.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s				0.1	0.0	0.6	0.0	0.5	0.3	1.2	0.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.55		0.00
Lane Grp Cap(c), veh/h				331	0	286	0	769	641	937	0	0
V/C Ratio(X)				0.04	0.00	0.21	0.00	0.10	0.06	0.20	0.00	0.00
Avail Cap(c_a), veh/h				3306	0	2859	0	3417	2846	3082	0	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh				6.6	0.0	6.8	0.0	3.6	3.5	3.8	0.0	0.0
Incr Delay (d2), s/veh				0.1	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				6.7	0.0	7.4	0.0	3.6	3.5	3.8	0.0	0.0
LnGrp LOS				A	A	A	A	A	A	A	A	A
Approach Vol, veh/h					72			113			184	
Approach Delay, s/veh					7.2			3.6			3.8	
Approach LOS					A			A			A	

Timer - Assigned Phs	2			6		8						
Phs Duration (G+Y+Rc), s	12.1			12.1		7.6						
Change Period (Y+Rc), s	4.0			4.0		4.0						
Max Green Setting (Gmax), s	36.0			36.0		36.0						
Max Q Clear Time (g_c+I1), s	2.5			3.2		2.6						
Green Ext Time (p_c), s	0.5			0.8		0.6						

Intersection Summary		
HCM 6th Ctrl Delay	4.4	
HCM 6th LOS	A	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	180	10	95	35	0	0	0	0	110	825	65
Future Volume (veh/h)	0	180	10	95	35	0	0	0	0	110	825	65
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00				1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1885	1900	1826	0				1900	1885	1900
Adj Flow Rate, veh/h	0	222	12	117	43	0				136	1019	80
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81				0.81	0.81	0.81
Percent Heavy Veh, %	0	0	1	0	5	0				0	1	0
Cap, veh/h	0	1044	56	715	1069	0				176	1410	449
Arrive On Green	0.00	0.59	0.59	0.59	0.59	0.00				0.29	0.30	0.30
Sat Flow, veh/h	0	1782	96	1163	1826	0				586	4701	1495
Grp Volume(v), veh/h	0	0	234	117	43	0				431	724	80
Grp Sat Flow(s),veh/h/ln	0	0	1879	1163	1826	0				1856	1716	1495
Q Serve(g_s), s	0.0	0.0	4.1	3.7	0.7	0.0				14.8	13.1	2.8
Cycle Q Clear(g_c), s	0.0	0.0	4.1	7.8	0.7	0.0				14.8	13.1	2.8
Prop In Lane	0.00		0.05	1.00		0.00				0.32		1.00
Lane Grp Cap(c), veh/h	0	0	1100	715	1069	0				557	1029	449
V/C Ratio(X)	0.00	0.00	0.21	0.16	0.04	0.00				0.77	0.70	0.18
Avail Cap(c_a), veh/h	0	0	1100	715	1069	0				557	1029	449
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.80	0.95	0.95	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	6.9	8.7	6.2	0.0				22.5	21.7	18.1
Incr Delay (d2), s/veh	0.0	0.0	0.4	0.5	0.1	0.0				10.1	4.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.5	0.9	0.2	0.0				7.6	5.5	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	7.2	9.2	6.2	0.0				32.5	25.8	19.0
LnGrp LOS	A	A	A	A	A	A				C	C	B
Approach Vol, veh/h		234			160						1235	
Approach Delay, s/veh		7.2			8.4						27.7	
Approach LOS		A			A						C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	25.0	45.0	45.0
Change Period (Y+Rc), s	* 4.8	4.0	4.0
Max Green Setting (Gmax), s	* 20	41.0	41.0
Max Q Clear Time (g_c+I1), s	16.8	6.1	9.8
Green Ext Time (p_c), s	1.0	0.3	0.1

Intersection Summary	
HCM 6th Ctrl Delay	22.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	175	0	0	105	45	25	990	215	0	0	0
Future Volume (veh/h)	115	175	0	0	105	45	25	990	215	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	0.98		1.00	1.00		0.98	1.00		0.93			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1885	1900	1856	1870	1900			
Adj Flow Rate, veh/h	128	194	0	0	117	50	28	1100	239			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	0	0	0	0	1	0	3	2	0			
Cap, veh/h	360	543	0	0	355	152	74	3087	901			
Arrive On Green	0.09	0.09	0.00	0.00	0.29	0.29	0.59	0.60	0.60			
Sat Flow, veh/h	1218	1900	0	0	1243	531	123	5145	1501			
Grp Volume(v), veh/h	128	194	0	0	0	167	424	704	239			
Grp Sat Flow(s),veh/h/ln	1218	1900	0	0	0	1775	1864	1702	1501			
Q Serve(g_s), s	7.1	6.7	0.0	0.0	0.0	5.2	8.2	7.3	5.3			
Cycle Q Clear(g_c), s	12.3	6.7	0.0	0.0	0.0	5.2	8.2	7.3	5.3			
Prop In Lane	1.00		0.00	0.00		0.30	0.07		1.00			
Lane Grp Cap(c), veh/h	360	543	0	0	0	507	1119	2042	901			
V/C Ratio(X)	0.36	0.36	0.00	0.00	0.00	0.33	0.38	0.34	0.27			
Avail Cap(c_a), veh/h	360	543	0	0	0	507	1119	2042	901			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.98	0.98	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	30.7	25.7	0.0	0.0	0.0	19.7	7.3	7.1	6.7			
Incr Delay (d2), s/veh	2.7	1.8	0.0	0.0	0.0	1.7	1.0	0.5	0.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.5	3.4	0.0	0.0	0.0	2.3	3.0	2.3	1.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.4	27.5	0.0	0.0	0.0	21.4	8.2	7.5	7.4			
LnGrp LOS	C	C	A	A	A	C	A	A	A			
Approach Vol, veh/h		322			167			1367				
Approach Delay, s/veh		29.8			21.4			7.7				
Approach LOS		C			C			A				

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	46.0	24.0	24.0
Change Period (Y+Rc), s	* 4.7	4.0	4.0
Max Green Setting (Gmax), s	* 41	20.0	20.0
Max Q Clear Time (g_c+I1), s	10.2	14.3	7.2
Green Ext Time (p_c), s	1.5	0.1	0.1

Intersection Summary	
HCM 6th Ctrl Delay	12.8
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection ID and Name	use dropdown NB PhasingType	use dropdown SB PhasingType	use dropdown EB PhasingType	use dropdown WB PhasingType	Cycle Length	Lost Time	use dropdown Use Overlap Calculator	use dropdov NBR Overla	use dropdow SBR Overla	use dropdow EBR Overla	use dropdov WBR Overla
6: SE Water Avenue & SE Clay Street	Permitted	Permitted		Permitted	80	8	No				
7: SE Martin Luther King Jr. Boulevard & SE Stark Street		Protected	Protected	Protected	70	8	No	No	No	No	No
8: SE Grand Avenue & SE Stark Street/ SE S	Protected		Protected	Protected	70	8	No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				

BEGIN CALCULATIONS

1	3 EBL	4 EBT	5 EBR	6 WBL	7 WBT	8 WBR	9 NBL	10 NBT	11 NBR	12 SBL	13 SBT	14 SBR		Critical Flow Calculator WBL/EBT	EBL/WBT	NBL/SBT	SBL/NBT	V/S E/W	V/S N/S
Adj Flow Rate, veh/h	0	0	0	12	0	60	0	77	36	101	83	0	Protected	0.01	0.04	0.09	0.19		
Sat Flow, veh/h	0	0	0	1810	0	1565	0	1870	1558	670	920	0	Permitted or Split	0.00	0.04	0.15	0.04		
V/S	0.00	0.00	0.00	0.01	0.00	0.04	0.00	0.04	0.02	0.15	0.09	0.00	selected phasing	0.00	0.04	0.15	0.04	0.04	0.15
Adj Flow Rate, veh/h	0	222	12	117	43	0	0	0	0	136	1019	80	Protected	0.23	0.02	0.22	0.23		
Sat Flow, veh/h	0	1782	96	1163	1826	0	0	0	0	586	4701	1495	Permitted or Split	0.13	0.10	0.23	0.00		
V/S	0.00	0.12	0.13	0.10	0.02	0.00	0.00	0.00	0.00	0.23	0.22	0.05	selected phasing	0.23	0.02	0.23	0.23	0.23	0.23
Adj Flow Rate, veh/h	128	194	0	0	117	50	28	1100	239	0	0	0	Protected	0.10	0.20	0.23	0.21		
Sat Flow, veh/h	1218	1900	0	0	1243	531	123	5145	1501	0	0	0	Permitted or Split	0.11	0.09	0.00	0.23		
V/S	0.11	0.10	0.00	0.00	0.09	0.09	0.23	0.21	0.16	0.00	0.00	0.00	selected phasing	0.10	0.20	0.23	0.23	0.20	0.23
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00

Overlap Critical Flow Calculator	NBR OV	NB OV V/S	SBR OV	SB OV V/S	EBR OV	EB OV V/S	WBR OV	WB OV V/S	V/S Overlap		Intersection V/C	HCM 6th Ctrl Delay	HCM 6th LOS	Synchro ID
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	Permitted	0.00	Permitted	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.04	0.00	0.04	Permitted	0.09	Permitted	0.09	N/A		**0.21**	**4**	**A**	6
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	Protected	0.10	Protected	0.10	No OV					
Overlap Approach Phasing	Protected	0.13	Protected	0.13	0.00	0.22	0.00	0.22	N/A		**0.52**	**23**	**C**	7
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	Protected	0.23	Protected	0.23	Protected	0.11	Protected	0.11	No OV					
Overlap Approach Phasing	Protected	0.10	Protected	0.10	Protected	0.21	Protected	0.21	N/A		**0.48**	**13**	**B**	8
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	

List of Phasing Types
Protected
Permitted
Split

List of Overlap Types
Yes
No

Sheet Description:
This sheet reads in the adjusted flow rate and the saturation flow rate from Synchro and divides them to calculated the V/S for each movement.
The critical flow calculator calculates the critical v/s for each conflicting phase pair.
for protected phases, this v/s is the left turn v/s plus the max of the opposing movement v/s
for the permitted and split phases, this v/s is the max of the three movement v/s
The next step selects the proper v/s based on phasing provided
V/S by east-west and north-south is selected by taking the max of the phase pairs or by adding them (if split phasing)
If overlap calculator was selected in input section and overlap phases were indicated, then overlap v/s for intersection is calculated. See details below
If the right turn v/s is greater than the through v/s for the right turn overlap approach, then the right turn is assumed the critical movement and intersection v/c calc will use the v/s overlap instead of approach v/
The final step in v/c calculation uses the approach v/s ratios, cycle length, and lost time to calculate overall intersection v/c
Delay and LOS are read directly from the HCM 6 report

Overlap Calculator Details
Overlap calculator reads in whether an overlap phase is in use and what type of phasing is associated with the right turn approach and the overlapped approach
V/S is read in for right turn movement, and remaining approaches from previous calculations
-right turn overlap v/s is just the v/s for the right turn movement (i.e. NBR)
-right turn approach v/s is the critical v/s associated with the right turn approaches (i.e. NB/SB) and is calculated differently for protected vs split
-overlap approach v/s is the critical v/s associated with the overlap approaches (i.e. EB/WB) and is calculated differently for protected vs split phasing
The v/s overlap column sums the 3 v/s values for the overlap phasing to get the total v/s overlap to be used in the v/c calculation
If there are overlaps for both approaches (i.e. N/S or E/W), the v/s overlap will use the greater of the two for most conservative approach
Use Overlap Calculator' must be enabled and 'Use OV V/S' must be showing in V/S Overlap column in order for overlap v/s to be used in final v/c calculation

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	25	0	200	110	0
Future Vol, veh/h	5	25	0	200	110	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	55	55	55	55	55	55
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	45	0	364	200	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	564	200	-	0	-	0
Stage 1	200	-	-	-	-	-
Stage 2	364	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	490	846	0	-	-	0
Stage 1	838	-	0	-	-	0
Stage 2	707	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	490	846	-	-	-	-
Mov Cap-2 Maneuver	490	-	-	-	-	-
Stage 1	838	-	-	-	-	-
Stage 2	707	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	755	-
HCM Lane V/C Ratio	-	0.072	-
HCM Control Delay (s)	-	10.1	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0.2	-

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	20	110	35	0	5	0	170	5	5	130	0
Future Vol, veh/h	25	20	110	35	0	5	0	170	5	5	130	0
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	35	28	155	49	0	7	0	239	7	7	183	0
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	9.1	9.1	10.2	9.7
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	0%	56%	0%	88%	4%
Vol Thru, %	97%	44%	0%	0%	96%
Vol Right, %	3%	0%	100%	12%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	175	45	110	40	135
LT Vol	0	25	0	35	5
Through Vol	170	20	0	0	130
RT Vol	5	0	110	5	0
Lane Flow Rate	246	63	155	56	190
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.329	0.104	0.211	0.085	0.258
Departure Headway (Hd)	4.8	5.886	4.898	5.448	4.893
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	744	605	727	650	728
Service Time	2.864	3.662	2.674	3.544	2.962
HCM Lane V/C Ratio	0.331	0.104	0.213	0.086	0.261
HCM Control Delay	10.2	9.4	9	9.1	9.7
HCM Lane LOS	B	A	A	A	A
HCM 95th-tile Q	1.4	0.3	0.8	0.3	1

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	0	90	0	0	0	155	25	30	300	0
Future Vol, veh/h	5	0	0	90	0	0	0	155	25	30	300	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	7	0	0	130	0	0	0	225	36	43	435	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	764	782	435	764	764	243	435	0	0	261	0	0
Stage 1	521	521	-	243	243	-	-	-	-	-	-	-
Stage 2	243	261	-	521	521	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	323	328	625	323	336	801	1135	-	-	1315	-	-
Stage 1	542	535	-	765	708	-	-	-	-	-	-	-
Stage 2	765	696	-	542	535	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	312	314	625	312	322	801	1135	-	-	1315	-	-
Mov Cap-2 Maneuver	312	314	-	312	322	-	-	-	-	-	-	-
Stage 1	542	512	-	765	708	-	-	-	-	-	-	-
Stage 2	765	696	-	519	512	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.8	24.6	0	0.7
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1135	-	-	312	312	1315	-	-
HCM Lane V/C Ratio	-	-	-	0.023	0.418	0.033	-	-
HCM Control Delay (s)	0	-	-	16.8	24.6	7.8	0	-
HCM Lane LOS	A	-	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	2	0.1	-	-

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	15	15	35	40	0	30	0	135	10	60	330	0
Future Vol, veh/h	15	15	35	40	0	30	0	135	10	60	330	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	0	0	51	0	0	0	0	0	0	0	0	0
Mvmt Flow	21	21	50	57	0	43	0	193	14	86	471	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	865	850	471	879	843	200	471	0	0	207	0	0
Stage 1	643	643	-	200	200	-	-	-	-	-	-	-
Stage 2	222	207	-	679	643	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.71	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.759	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	276	300	504	270	303	846	1101	-	-	1376	-	-
Stage 1	465	472	-	806	739	-	-	-	-	-	-	-
Stage 2	785	734	-	445	472	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	245	275	504	214	277	846	1101	-	-	1376	-	-
Mov Cap-2 Maneuver	245	275	-	214	277	-	-	-	-	-	-	-
Stage 1	465	432	-	806	739	-	-	-	-	-	-	-
Stage 2	745	734	-	349	432	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.9	21.7	0	1.2
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1101	-	-	351	315	1376	-	-
HCM Lane V/C Ratio	-	-	-	0.265	0.317	0.062	-	-
HCM Control Delay (s)	0	-	-	18.9	21.7	7.8	0	-
HCM Lane LOS	A	-	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1	1.3	0.2	-	-

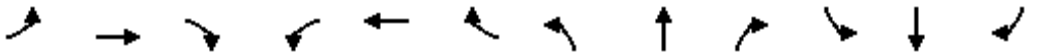
Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	40	0	0	0	0	0	45	85	5	5	155	265
Future Vol, veh/h	40	0	0	0	0	0	45	85	5	5	155	265
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	61	61	61	61	61	61	61	61	61
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	66	0	0	0	0	0	74	139	8	8	254	434

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	778	782	471	688	0	0	147	0	0
Stage 1	487	487	-	-	-	-	-	-	-
Stage 2	291	295	-	-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	368	328	597	916	-	-	1447	-	-
Stage 1	622	554	-	-	-	-	-	-	-
Stage 2	763	673	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	332	0	597	916	-	-	1447	-	-
Mov Cap-2 Maneuver	332	0	-	-	-	-	-	-	-
Stage 1	567	0	-	-	-	-	-	-	-
Stage 2	755	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.5	3.1	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	916	-	-	332	-	1447	-	-
HCM Lane V/C Ratio	0.081	-	-	0.198	-	0.006	-	-
HCM Control Delay (s)	9.3	0	-	18.5	0	7.5	-	-
HCM Lane LOS	A	A	-	C	A	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.7	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	80	0	55	5	80	75	0
Future Volume (veh/h)	0	0	0	0	0	80	0	55	5	80	75	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1900	1900	1796	1900	0
Adj Flow Rate, veh/h				0	0	104	0	71	6	104	97	0
Peak Hour Factor				0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %				0	0	0	0	0	0	7	0	0
Cap, veh/h				395	0	352	0	739	626	513	393	0
Arrive On Green				0.00	0.00	0.22	0.00	0.39	0.39	0.39	0.39	0.00
Sat Flow, veh/h				1810	0	1610	0	1900	1610	630	1009	0
Grp Volume(v), veh/h				0	0	104	0	71	6	201	0	0
Grp Sat Flow(s),veh/h/ln				1810	0	1610	0	1900	1610	1639	0	0
Q Serve(g_s), s				0.0	0.0	1.1	0.0	0.5	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				0.0	0.0	1.1	0.0	0.5	0.0	1.5	0.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.52		0.00
Lane Grp Cap(c), veh/h				395	0	352	0	739	626	906	0	0
V/C Ratio(X)				0.00	0.00	0.30	0.00	0.10	0.01	0.22	0.00	0.00
Avail Cap(c_a), veh/h				3197	0	2845	0	3357	2845	3061	0	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh				0.0	0.0	6.7	0.0	4.0	3.8	4.3	0.0	0.0
Incr Delay (d2), s/veh				0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.3	0.0	0.1	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	7.3	0.0	4.0	3.8	4.3	0.0	0.0
LnGrp LOS				A	A	A	A	A	A	A	A	A
Approach Vol, veh/h					104			77			201	
Approach Delay, s/veh					7.3			4.0			4.3	
Approach LOS					A			A			A	

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		11.9				11.9		8.4				
Change Period (Y+Rc), s		4.0				4.0		4.0				
Max Green Setting (Gmax), s		36.0				36.0		36.0				
Max Q Clear Time (g_c+I1), s		2.5				3.5		3.1				
Green Ext Time (p_c), s		0.3				0.9		0.9				

Intersection Summary		
HCM 6th Ctrl Delay	5.1	
HCM 6th LOS	A	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	165	5	40	15	0	0	0	0	50	340	65
Future Volume (veh/h)	0	165	5	40	15	0	0	0	0	50	340	65
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1870	1707
Adj Flow Rate, veh/h	0	217	7	53	20	0				66	447	86
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	2	13
Cap, veh/h	0	1071	35	725	1113	0				190	1383	421
Arrive On Green	0.00	0.59	0.59	0.59	0.59	0.00				0.29	0.30	0.30
Sat Flow, veh/h	0	1829	59	1175	1900	0				633	4610	1402
Grp Volume(v), veh/h	0	0	224	53	20	0				192	321	86
Grp Sat Flow(s),veh/h/ln	0	0	1888	1175	1900	0				1839	1702	1402
Q Serve(g_s), s	0.0	0.0	3.9	1.6	0.3	0.0				5.7	5.1	3.2
Cycle Q Clear(g_c), s	0.0	0.0	3.9	5.5	0.3	0.0				5.7	5.1	3.2
Prop In Lane	0.00		0.03	1.00		0.00				0.34		1.00
Lane Grp Cap(c), veh/h	0	0	1106	725	1113	0				552	1021	421
V/C Ratio(X)	0.00	0.00	0.20	0.07	0.02	0.00				0.35	0.31	0.20
Avail Cap(c_a), veh/h	0	0	1106	725	1113	0				552	1021	421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.90	0.99	0.99	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	6.8	8.1	6.1	0.0				19.3	18.9	18.3
Incr Delay (d2), s/veh	0.0	0.0	0.4	0.2	0.0	0.0				1.7	0.8	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.4	0.4	0.1	0.0				2.6	2.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	7.2	8.3	6.1	0.0				21.0	19.7	19.4
LnGrp LOS	A	A	A	A	A	A				C	B	B
Approach Vol, veh/h		224			73						599	
Approach Delay, s/veh		7.2			7.7						20.1	
Approach LOS		A			A						C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	25.0	45.0	45.0
Change Period (Y+Rc), s	* 4.8	4.0	4.0
Max Green Setting (Gmax), s	* 20	41.0	41.0
Max Q Clear Time (g_c+I1), s	7.7	5.9	7.5
Green Ext Time (p_c), s	0.8	0.3	0.0

Intersection Summary	
HCM 6th Ctrl Delay	15.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	60	0	0	45	25	10	455	45	0	0	0
Future Volume (veh/h)	155	60	0	0	45	25	10	455	45	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		0.98	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1870	1900			
Adj Flow Rate, veh/h	174	67	0	0	51	28	11	511	51			
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89			
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	0			
Cap, veh/h	438	543	0	0	327	179	63	3099	945			
Arrive On Green	0.29	0.29	0.00	0.00	0.29	0.29	0.59	0.60	0.60			
Sat Flow, veh/h	1330	1900	0	0	1143	627	105	5165	1576			
Grp Volume(v), veh/h	174	67	0	0	0	79	196	326	51			
Grp Sat Flow(s),veh/h/ln	1330	1900	0	0	0	1770	1865	1702	1576			
Q Serve(g_s), s	7.9	1.8	0.0	0.0	0.0	2.3	3.3	3.0	0.9			
Cycle Q Clear(g_c), s	10.2	1.8	0.0	0.0	0.0	2.3	3.3	3.0	0.9			
Prop In Lane	1.00		0.00	0.00		0.35	0.06		1.00			
Lane Grp Cap(c), veh/h	438	543	0	0	0	506	1119	2042	945			
V/C Ratio(X)	0.40	0.12	0.00	0.00	0.00	0.16	0.18	0.16	0.05			
Avail Cap(c_a), veh/h	438	543	0	0	0	506	1119	2042	945			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.99	0.99	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	22.5	18.5	0.0	0.0	0.0	18.7	6.3	6.2	5.8			
Incr Delay (d2), s/veh	2.6	0.5	0.0	0.0	0.0	0.7	0.3	0.2	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.7	0.8	0.0	0.0	0.0	1.0	1.2	0.9	0.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.2	19.0	0.0	0.0	0.0	19.3	6.6	6.4	5.9			
LnGrp LOS	C	B	A	A	A	B	A	A	A			
Approach Vol, veh/h		241			79			573				
Approach Delay, s/veh		23.4			19.3			6.4				
Approach LOS		C			B			A				

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	46.0	24.0	24.0
Change Period (Y+Rc), s	* 4.7	4.0	4.0
Max Green Setting (Gmax), s	* 41	20.0	20.0
Max Q Clear Time (g_c+I1), s	5.3	12.2	4.3
Green Ext Time (p_c), s	0.6	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	12.1
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection ID and Name	use dropdown NB PhasingType	use dropdown SB PhasingType	use dropdown EB PhasingType	use dropdown WB PhasingType	Cycle Length	Lost Time	use dropdow Use Overlap Calculator	use dropdow NBR Overla	use dropdow SBR Overlap	use dropdow EBR Overlap	use dropdow WBR Overla	BEGIN CALCULATIONS	1 EBL	3 EBT	4 EBR	5 WBL	6 WBT	7 WBR	8 NBL	9 NBT	10 NBR	11 SBL	12 SBT	13 SBR	14	Critical Flow Calculator WBL/EBT	EBL/WBT	NBL/SBT	SBL/NBT	V/S f/W	V/S N/S	Overlap Critical Flow Calculator	NBR OV	NB OV V/S	SBR OV	SB OV V/S	EBR OV	EB OV V/S	WBR OV	WB OV V/S	V/S Overlap	Intersection V/C	HCM 6th Ctrl Delay	HCM 6th LOS	Synchro ID
6: SE Water Avenue & SE Clay Street	Permitted	Permitted		Permitted	80		8 No																																					
												Adj Flow Rate, veh/h	0	0	0	0	0	104	0	71	6	104	97	0 Protected	0.00	0.06	0.10	0.20			Right Turn Overlap	No		0.00 No		0.00 No		0.00 No		0.00					
												Sat Flow, veh/h	0	0	0	1810	0	1610	0	1900	1610	630	1009	0 Permitted or Split	0.00	0.06	0.17	0.04			Right Turn Approach Phasing	Permitted		0.00 Permitted		0.00	0.00	0.00	0.00	No OV					
												V/S	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.04	0.00	0.17	0.10	0.00 selected phasing	0.00	0.06	0.17	0.04	0.06	0.17	Overlap Approach Phasing		0.00	0.06	0.00	0.06 Permitted	0.10 Permitted	0.10	N/A		**0.26**	**5**	**A**	6
7: SE Martin Luther King Jr. Boulevard & SE Stark Street	Protected	Protected		Protected	70		8 No	No	No	No	No																																	
												Adj Flow Rate, veh/h	0	217	7	53	20	0	0	0	0	66	447	86 Protected	0.16	0.01	0.10	0.10			Right Turn Overlap	No		0.00 No		0.00 No		0.00 No		0.00					
												Sat Flow, veh/h	0	1829	59	1175	1900	0	0	0	0	633	4610	1402 Permitted or Split	0.12	0.05	0.10	0.00			Right Turn Approach Phasing		0.00	0.00	0.00	0.00 Protected	0.05 Protected	0.05	No OV					
												V/S	0.00	0.12	0.12	0.05	0.01	0.00	0.00	0.00	0.00	0.10	0.10	0.06 selected phasing	0.16	0.01	0.10	0.10	0.16	0.10	Overlap Approach Phasing	Protected	0.12	Protected	0.12	0.00	0.10	0.00	0.10	N/A	**0.30**	**16**	**B**	7
8: SE Grand Avenue & SE Stark Street/ SE 9 Protected			Protected	Protected	70		8 No																																					
												Adj Flow Rate, veh/h	174	67	0	9	51	28	11	511	51	0	0	0 Protected	0.04	0.18	0.10	0.10			Right Turn Overlap	No		0.00 No		0.00 No		0.00 No		0.00					
												Sat Flow, veh/h	1330	1900	0	0	1143	627	105	5165	1576	0	0	0 Permitted or Split	0.13	0.04	0.00	0.10			Right Turn Approach Phasing	Protected		0.10 Protected		0.10 Protected		0.13 Protected		0.13	No OV				
												V/S	0.13	0.04	0.00	0.00	0.04	0.04	0.10	0.10	0.03	0.00	0.00	0.00 selected phasing	0.04	0.18	0.10	0.10	0.18	0.10	Overlap Approach Phasing	Protected	0.04	Protected	0.04	Protected	0.10	Protected	0.10	N/A	**0.32**	**12**	**B**	8
												Adj Flow Rate, veh/h												Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No		0.00 No		0.00 No		0.00 No		0.00					
												Sat Flow, veh/h												Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
												V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing		0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	45	0	305	120	0
Future Vol, veh/h	5	45	0	305	120	0
Conflicting Peds, #/hr	1	0	9	0	0	9
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	1	7	0
Mvmt Flow	7	59	0	401	158	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	560	158	-	0	-	0
Stage 1	158	-	-	-	-	-
Stage 2	402	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	493	893	0	-	-	0
Stage 1	875	-	0	-	-	0
Stage 2	680	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	493	893	-	-	-	-
Mov Cap-2 Maneuver	493	-	-	-	-	-
Stage 1	875	-	-	-	-	-
Stage 2	680	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	826	-
HCM Lane V/C Ratio	-	0.08	-
HCM Control Delay (s)	-	9.7	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.3	-

Intersection	
Intersection Delay, s/veh	11.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	185	110	300	5	0	15	0	105	20	10	155	0
Future Vol, veh/h	185	110	300	5	0	15	0	105	20	10	155	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	1	0	0	0	0	0	0	3	0	0	6	0
Mvmt Flow	201	120	326	5	0	16	0	114	22	11	168	0
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	12.5	8.5	10.1	10.7
HCM LOS	B	A	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	0%	63%	0%	25%	6%
Vol Thru, %	84%	37%	0%	0%	94%
Vol Right, %	16%	0%	100%	75%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	125	295	300	20	165
LT Vol	0	185	0	5	10
Through Vol	105	110	0	0	155
RT Vol	20	0	300	15	0
Lane Flow Rate	136	321	326	22	179
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.208	0.507	0.421	0.032	0.274
Departure Headway (Hd)	5.516	5.69	4.651	5.286	5.502
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	644	628	766	681	647
Service Time	3.612	3.472	2.433	3.286	3.591
HCM Lane V/C Ratio	0.211	0.511	0.426	0.032	0.277
HCM Control Delay	10.1	14.3	10.8	8.5	10.7
HCM Lane LOS	B	B	B	A	B
HCM 95th-tile Q	0.8	2.9	2.1	0.1	1.1

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	5	5	40	5	10	5	135	30	35	335	10
Future Vol, veh/h	0	5	5	40	5	10	5	135	30	35	335	10
Conflicting Peds, #/hr	2	0	0	0	0	2	5	0	7	7	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	6	0	0	2	0
Mvmt Flow	0	6	6	44	6	11	6	150	33	39	372	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	650	663	383	648	652	176	388	0	0	190	0	0
Stage 1	461	461	-	186	186	-	-	-	-	-	-	-
Stage 2	189	202	-	462	466	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	385	384	669	386	390	872	1182	-	-	1396	-	-
Stage 1	584	569	-	820	750	-	-	-	-	-	-	-
Stage 2	817	738	-	584	566	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	361	364	666	364	369	865	1176	-	-	1387	-	-
Mov Cap-2 Maneuver	361	364	-	364	369	-	-	-	-	-	-	-
Stage 1	578	546	-	809	740	-	-	-	-	-	-	-
Stage 2	794	728	-	553	543	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.8	15.4	0.2	0.7
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1176	-	-	471	407	1387	-	-
HCM Lane V/C Ratio	0.005	-	-	0.024	0.15	0.028	-	-
HCM Control Delay (s)	8.1	0	-	12.8	15.4	7.7	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.5	0.1	-	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	5	5	0	15	10	30	15	135	15	65	295	20
Future Vol, veh/h	5	5	0	15	10	30	15	135	15	65	295	20
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	11	11	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	6	0	0	2	0
Mvmt Flow	5	5	0	16	11	32	16	142	16	68	311	21

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	664	661	324	653	663	161	334	0	0	169	0	0
Stage 1	460	460	-	193	193	-	-	-	-	-	-	-
Stage 2	204	201	-	460	470	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	377	385	722	383	384	889	1237	-	-	1421	-	-
Stage 1	585	569	-	813	745	-	-	-	-	-	-	-
Stage 2	803	739	-	585	563	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	335	353	721	354	352	880	1235	-	-	1406	-	-
Mov Cap-2 Maneuver	335	353	-	354	352	-	-	-	-	-	-	-
Stage 1	576	534	-	793	727	-	-	-	-	-	-	-
Stage 2	752	721	-	545	529	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.8	12.7	0.7	1.3
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1235	-	-	344	524	1406	-	-
HCM Lane V/C Ratio	0.013	-	-	0.031	0.11	0.049	-	-
HCM Control Delay (s)	8	0	-	15.8	12.7	7.7	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.4	0.2	-	-

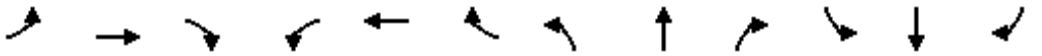
Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	60	5	10	0	0	0	25	105	5	15	175	130
Future Vol, veh/h	60	5	10	0	0	0	25	105	5	15	175	130
Conflicting Peds, #/hr	0	0	1	1	0	0	2	0	3	3	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	10	0	0	0	0	0	0	0	0	0	0	2
Mvmt Flow	65	5	11	0	0	0	27	114	5	16	190	141

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	466	471	264	333	0	0	122	0	0
Stage 1	295	295	-	-	-	-	-	-	-
Stage 2	171	176	-	-	-	-	-	-	-
Critical Hdwy	6.5	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	541	494	780	1238	-	-	1478	-	-
Stage 1	738	673	-	-	-	-	-	-	-
Stage 2	840	757	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	519	0	778	1236	-	-	1478	-	-
Mov Cap-2 Maneuver	519	0	-	-	-	-	-	-	-
Stage 1	720	0	-	-	-	-	-	-	-
Stage 2	827	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.6	1.5	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1236	-	-	519	778	1478	-	-
HCM Lane V/C Ratio	0.022	-	-	0.136	0.014	0.011	-	-
HCM Control Delay (s)	8	0	-	13	9.7	7.5	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	10	0	55	0	80	45	85	100	0
Future Volume (veh/h)	0	0	0	10	0	55	0	80	45	85	100	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.97	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h				11	0	63	0	92	52	98	115	0
Peak Hour Factor				0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				322	0	285	0	816	673	486	472	0
Arrive On Green				0.18	0.00	0.18	0.00	0.43	0.43	0.43	0.43	0.00
Sat Flow, veh/h				1810	0	1604	0	1900	1568	532	1100	0
Grp Volume(v), veh/h				11	0	63	0	92	52	213	0	0
Grp Sat Flow(s),veh/h/ln				1810	0	1604	0	1900	1568	1632	0	0
Q Serve(g_s), s				0.1	0.0	0.7	0.0	0.6	0.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s				0.1	0.0	0.7	0.0	0.6	0.4	1.5	0.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.46		0.00
Lane Grp Cap(c), veh/h				322	0	285	0	816	673	959	0	0
V/C Ratio(X)				0.03	0.00	0.22	0.00	0.11	0.08	0.22	0.00	0.00
Avail Cap(c_a), veh/h				3199	0	2835	0	3359	2771	3022	0	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh				6.9	0.0	7.2	0.0	3.5	3.4	3.7	0.0	0.0
Incr Delay (d2), s/veh				0.1	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.2	0.0	0.1	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				7.0	0.0	7.7	0.0	3.5	3.4	3.8	0.0	0.0
LnGrp LOS				A	A	A	A	A	A	A	A	A
Approach Vol, veh/h					74			144			213	
Approach Delay, s/veh					7.6			3.5			3.8	
Approach LOS					A			A			A	

Timer - Assigned Phs	2			6		8			
Phs Duration (G+Y+Rc), s	12.7			12.7		7.6			
Change Period (Y+Rc), s	4.0			4.0		4.0			
Max Green Setting (Gmax), s	36.0			36.0		36.0			
Max Q Clear Time (g_c+I1), s	2.6			3.5		2.7			
Green Ext Time (p_c), s	0.6			1.0		0.6			

Intersection Summary		
HCM 6th Ctrl Delay	4.3	
HCM 6th LOS	A	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	205	15	100	50	0	0	0	0	110	825	65
Future Volume (veh/h)	0	205	15	100	50	0	0	0	0	110	825	65
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.99		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1870	0				1900	1885	1811
Adj Flow Rate, veh/h	0	253	19	123	62	0				136	1019	80
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81				0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	2	0				0	1	6
Cap, veh/h	0	522	39	305	561	0				343	2753	870
Arrive On Green	0.00	0.30	0.30	0.30	0.30	0.00				0.57	0.59	0.59
Sat Flow, veh/h	0	1739	131	1117	1870	0				586	4701	1486
Grp Volume(v), veh/h	0	0	272	123	62	0				431	724	80
Grp Sat Flow(s),veh/h/ln	0	0	1870	1117	1870	0				1856	1716	1486
Q Serve(g_s), s	0.0	0.0	8.3	7.1	1.7	0.0				8.8	7.8	1.7
Cycle Q Clear(g_c), s	0.0	0.0	8.3	15.4	1.7	0.0				8.8	7.8	1.7
Prop In Lane	0.00		0.07	1.00		0.00				0.32		1.00
Lane Grp Cap(c), veh/h	0	0	561	305	561	0				1087	2010	870
V/C Ratio(X)	0.00	0.00	0.48	0.40	0.11	0.00				0.40	0.36	0.09
Avail Cap(c_a), veh/h	0	0	561	305	561	0				1087	2010	870
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.71	0.95	0.95	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	20.1	26.4	17.7	0.0				7.9	7.6	6.3
Incr Delay (d2), s/veh	0.0	0.0	2.1	3.7	0.4	0.0				1.1	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	3.7	2.1	0.7	0.0				3.2	2.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	22.2	30.1	18.1	0.0				9.0	8.1	6.6
LnGrp LOS	A	A	C	C	B	A				A	A	A
Approach Vol, veh/h		272			185						1235	
Approach Delay, s/veh		22.2			26.1						8.3	
Approach LOS		C			C						A	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	45.0	25.0	25.0
Change Period (Y+Rc), s	* 4.8	4.0	4.0
Max Green Setting (Gmax), s	* 40	21.0	21.0
Max Q Clear Time (g_c+I1), s	10.8	10.3	17.4
Green Ext Time (p_c), s	2.1	0.3	0.0

Intersection Summary	
HCM 6th Ctrl Delay	12.5
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	195	0	0	105	50	45	875	190	0	0	0
Future Volume (veh/h)	120	195	0	0	105	50	45	875	190	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		0.97	1.00		0.94			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1870	1870	1885	1900			
Adj Flow Rate, veh/h	132	214	0	0	115	55	49	962	209			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91			
Percent Heavy Veh, %	0	0	0	0	0	2	2	1	0			
Cap, veh/h	359	543	0	0	343	164	143	2987	889			
Arrive On Green	0.19	0.19	0.00	0.00	0.29	0.29	0.59	0.59	0.59			
Sat Flow, veh/h	1220	1900	0	0	1200	574	242	5062	1506			
Grp Volume(v), veh/h	132	214	0	0	0	170	379	632	209			
Grp Sat Flow(s),veh/h/ln	1220	1900	0	0	0	1774	1873	1716	1506			
Q Serve(g_s), s	7.0	6.9	0.0	0.0	0.0	5.3	7.3	6.5	4.6			
Cycle Q Clear(g_c), s	12.3	6.9	0.0	0.0	0.0	5.3	7.3	6.5	4.6			
Prop In Lane	1.00		0.00	0.00		0.32	0.13		1.00			
Lane Grp Cap(c), veh/h	359	543	0	0	0	507	1105	2024	889			
V/C Ratio(X)	0.37	0.39	0.00	0.00	0.00	0.34	0.34	0.31	0.24			
Avail Cap(c_a), veh/h	359	543	0	0	0	507	1105	2024	889			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.86	0.86	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	27.6	23.0	0.0	0.0	0.0	19.8	7.4	7.2	6.8			
Incr Delay (d2), s/veh	2.5	1.8	0.0	0.0	0.0	1.8	0.8	0.4	0.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.4	3.3	0.0	0.0	0.0	2.3	2.7	2.1	1.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.1	24.8	0.0	0.0	0.0	21.5	8.2	7.6	7.5			
LnGrp LOS	C	C	A	A	A	C	A	A	A			
Approach Vol, veh/h		346			170			1220				
Approach Delay, s/veh		26.9			21.5			7.8				
Approach LOS		C			C			A				

Timer - Assigned Phs		2		4				8	
Phs Duration (G+Y+Rc), s		46.0		24.0				24.0	
Change Period (Y+Rc), s		* 4.7		4.0				4.0	
Max Green Setting (Gmax), s		* 41		20.0				20.0	
Max Q Clear Time (g_c+I1), s		9.3		14.3				7.3	
Green Ext Time (p_c), s		1.3		0.1				0.1	

Intersection Summary		
HCM 6th Ctrl Delay	12.9	
HCM 6th LOS	B	

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection ID and Name	use dropdown NB PhasingType	use dropdown SB PhasingType	use dropdown EB PhasingType	use dropdown WB PhasingType	Cycle Length	Lost Time	use dropdown Use Overlap Calculator	use dropdow NBR Overla	use dropdow SBR Overlap	use dropdow EBR Overlap	use dropdow WBR Overla	BEGIN CALCULATIONS
6: SE Water Avenue & SE Clay Street	Permitted	Permitted		Permitted	80	8	No					
7: SE Martin Luther King Jr. Boulevard & SE Stark Street		Protected	Protected	Protected	70	8	No	No	No	No	No	
8: SE Grand Avenue & SE Stark Street/ SE S	Protected		Protected	Protected	70	8	No					
							No					
							No					
							No					
							No					
							No					
							No					
							No					
							No					
							No					
							No					

1	3 EBL	4 EBT	5 EBR	6 WBL	7 WBT	8 WBR	9 NBL	10 NBT	11 NBR	12 SBL	13 SBT	14 SBR		Critical Flow Calculator WBL/EBT	EBL/WBT	NBL/SBT	SBL/NBT	V/S E/W	V/S N/S
Adj Flow Rate, veh/h	0	0	0	11	0	63	0	92	52	98	115	0	Protected	0.01	0.04	0.10	0.23		
Sat Flow, veh/h	0	0	0	1810	0	1604	0	1900	1568	532	1100	0	Permitted or Split	0.00	0.04	0.18	0.05		
V/S	0.00	0.00	0.00	0.01	0.00	0.04	0.00	0.05	0.03	0.18	0.10	0.00	selected phasing	0.00	0.04	0.18	0.05	0.04	0.18
Adj Flow Rate, veh/h	0	253	19	123	62	0	0	0	0	136	1019	80	Protected	0.26	0.03	0.22	0.23		
Sat Flow, veh/h	0	1739	131	1117	1870	0	0	0	0	586	4701	1486	Permitted or Split	0.15	0.11	0.23	0.00		
V/S	0.00	0.15	0.15	0.11	0.03	0.00	0.00	0.00	0.00	0.23	0.22	0.05	selected phasing	0.26	0.03	0.23	0.23	0.26	0.23
Adj Flow Rate, veh/h	132	214	0	0	115	55	49	962	209	0	0	0	Protected	0.11	0.20	0.20	0.19		
Sat Flow, veh/h	1220	1900	0	0	1200	574	242	5062	1506	0	0	0	Permitted or Split	0.11	0.10	0.00	0.20		
V/S	0.11	0.11	0.00	0.00	0.10	0.10	0.20	0.19	0.14	0.00	0.00	0.00	selected phasing	0.11	0.20	0.20	0.20	0.20	0.20
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00

Overlap Critical Flow Calculator	NBR OV	NB OV V/S	SBR OV	SB OV V/S	EBR OV	EB OV V/S	WBR OV	WB OV V/S	V/S Overlap	Intersection V/C	HCM 6th Ctrl Delay	HCM 6th LOS	Synchro ID
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	Permitted	0.00	Permitted	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.04	0.00	0.04	Permitted	0.10	Permitted	0.10	N/A	**0.25**	**4**	**A**	6
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	Protected	0.11	Protected	0.11	No OV				
Overlap Approach Phasing	Protected	0.15	Protected	0.15	0.00	0.22	0.00	0.22	N/A	**0.55**	**13**	**B**	7
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	Protected	0.20	Protected	0.20	Protected	0.11	Protected	0.11	No OV				
Overlap Approach Phasing	Protected	0.11	Protected	0.11	Protected	0.19	Protected	0.19	N/A	**0.46**	**13**	**B**	8
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00	0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV				
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	**0.00**	**0**	**A**	

List of Phasing Types
Protected
Permitted
Split

List of Overlap Types
Yes
No

Sheet Description:
This sheet reads in the adjusted flow rate and the saturation flow rate from Synchro and divides them to calculated the V/S for each movement.
The critical flow calculator calculates the critical v/s for each conflicting phase pair.
for protected phases, this v/s is the left turn v/s plus the max of the opposing movement v/s
for the permitted and split phases, this v/s is the max of the three movement v/s
The next step selects the proper v/s based on phasing provided
V/S by east-west and north-south is selected by taking the max of the phase pairs or by adding them (if split phasing)
If overlap calculator was selected in input section and overlap phases were indicated, then overlap v/s for intersection is calculated. See details below
If the right turn v/s is greater than the through v/s for the right turn overlap approach, then the right turn is assumed the critical movement and intersection v/c calc will use the v/s overlap instead of approach v/
The final step in v/c calculation uses the approach v/s ratios, cycle length, and lost time to calculate overall intersection v/c
Delay and LOS are read directly from the HCM 6 report

Overlap Calculator Details
Overlap calculator reads in whether an overlap phase is in use and what type of phasing is associated with the right turn approach and the overlapped approach
V/S is read in for right turn movement, and remaining approaches from previous calculations
-right turn overlap v/s is just the v/s for the right turn movement (i.e. NBR)
-right turn approach v/s is the critical v/s associated with the right turn approaches (i.e. NB/SB) and is calculated differently for protected vs split
-overlap approach v/s is the critical v/s associated with the overlap approaches (i.e. EB/WB) and is calculated differently for protected vs split phasing
The v/s overlap column sums the 3 v/s values for the overlap phasing to get the total v/s overlap to be used in the v/c calculation
If there are overlaps for both approaches (i.e. N/S or E/W), the v/s overlap will use the greater of the two for most conservative approach
Use Overlap Calculator' must be enabled and 'Use OV V/S' must be showing in V/S Overlap column in order for overlap v/s to be used in final v/c calculation

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	30	0	265	120	0
Future Vol, veh/h	10	30	0	265	120	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	1	0	0
Mvmt Flow	12	35	0	308	140	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	448	140	-	0	-	0
Stage 1	140	-	-	-	-	-
Stage 2	308	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	572	913	0	-	-	0
Stage 1	892	-	0	-	-	0
Stage 2	750	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	572	913	-	-	-	-
Mov Cap-2 Maneuver	572	-	-	-	-	-
Stage 1	892	-	-	-	-	-
Stage 2	750	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	795	-
HCM Lane V/C Ratio	-	0.059	-
HCM Control Delay (s)	-	9.8	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.2	-

Intersection	
Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	75	65	195	40	0	5	0	185	5	5	145	0
Future Vol, veh/h	75	65	195	40	0	5	0	185	5	5	145	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	1	0	0	0	0	0	0	0	0	0
Mvmt Flow	86	75	224	46	0	6	0	213	6	6	167	0
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	10.1	9.2	10.6	10.1
HCM LOS	B	A	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	0%	54%	0%	89%	3%
Vol Thru, %	97%	46%	0%	0%	97%
Vol Right, %	3%	0%	100%	11%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	190	140	195	45	150
LT Vol	0	75	0	40	5
Through Vol	185	65	0	0	145
RT Vol	5	0	195	5	0
Lane Flow Rate	218	161	224	52	172
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.312	0.26	0.301	0.082	0.25
Departure Headway (Hd)	5.139	5.809	4.832	5.723	5.226
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	692	611	735	630	679
Service Time	3.233	3.603	2.625	3.723	3.326
HCM Lane V/C Ratio	0.315	0.264	0.305	0.083	0.253
HCM Control Delay	10.6	10.7	9.7	9.2	10.1
HCM Lane LOS	B	B	A	A	B
HCM 95th-tile Q	1.3	1	1.3	0.3	1

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	5	10	95	5	5	5	165	30	35	350	10
Future Vol, veh/h	5	5	10	95	5	5	5	165	30	35	350	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	8	0	0	1	0
Mvmt Flow	6	6	12	116	6	6	6	201	37	43	427	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	757	769	433	760	757	220	439	0	0	238	0	0
Stage 1	519	519	-	232	232	-	-	-	-	-	-	-
Stage 2	238	250	-	528	525	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	327	334	627	325	339	825	1132	-	-	1341	-	-
Stage 1	544	536	-	775	716	-	-	-	-	-	-	-
Stage 2	770	704	-	538	533	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	308	318	627	303	323	825	1132	-	-	1341	-	-
Mov Cap-2 Maneuver	308	318	-	303	323	-	-	-	-	-	-	-
Stage 1	541	513	-	770	712	-	-	-	-	-	-	-
Stage 2	753	700	-	499	511	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.2	24.2	0.2	0.7
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1132	-	-	417	313	1341	-	-
HCM Lane V/C Ratio	0.005	-	-	0.058	0.409	0.032	-	-
HCM Control Delay (s)	8.2	0	-	14.2	24.2	7.8	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	1.9	0.1	-	-

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	20	15	40	50	5	35	5	145	10	70	380	5
Future Vol, veh/h	20	15	40	50	5	35	5	145	10	70	380	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	1	0
Mvmt Flow	24	18	48	60	6	42	6	173	12	83	452	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	836	818	455	845	815	179	458	0	0	185	0	0
Stage 1	621	621	-	191	191	-	-	-	-	-	-	-
Stage 2	215	197	-	654	624	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	289	313	609	285	314	869	1114	-	-	1402	-	-
Stage 1	478	482	-	815	746	-	-	-	-	-	-	-
Stage 2	792	742	-	459	481	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	253	286	609	234	287	869	1114	-	-	1402	-	-
Mov Cap-2 Maneuver	253	286	-	234	287	-	-	-	-	-	-	-
Stage 1	475	444	-	810	742	-	-	-	-	-	-	-
Stage 2	743	738	-	374	443	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.4	20.9	0.3	1.2
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1114	-	-	380	332	1402	-	-
HCM Lane V/C Ratio	0.005	-	-	0.235	0.323	0.059	-	-
HCM Control Delay (s)	8.2	0	-	17.4	20.9	7.7	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.9	1.4	0.2	-	-

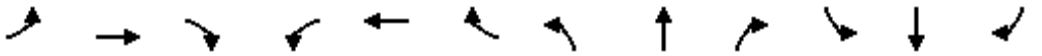
Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	0	0	0	0	0	45	95	5	5	190	280
Future Vol, veh/h	45	0	0	0	0	0	45	95	5	5	190	280
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	52	0	0	0	0	0	52	109	6	6	218	322

Major/Minor	Minor2					Major1			Major2		
Conflicting Flow All	607	610	379			540	0	0	115	0	0
Stage 1	391	391	-			-	-	-	-	-	-
Stage 2	216	219	-			-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2			4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.4	5.5	-			-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-			-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3			2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	463	412	672			1039	-	-	1487	-	-
Stage 1	688	611	-			-	-	-	-	-	-
Stage 2	825	726	-			-	-	-	-	-	-
Platoon blocked, %							-	-		-	-
Mov Cap-1 Maneuver	436	0	672			1039	-	-	1487	-	-
Mov Cap-2 Maneuver	436	0	-			-	-	-	-	-	-
Stage 1	652	0	-			-	-	-	-	-	-
Stage 2	820	0	-			-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.4	2.7	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1039	-	-	436	-	1487	-	-
HCM Lane V/C Ratio	0.05	-	-	0.119	-	0.004	-	-
HCM Control Delay (s)	8.6	0	-	14.4	0	7.4	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.4	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	5	0	85	0	60	15	100	90	0
Future Volume (veh/h)	0	0	0	5	0	85	0	60	15	100	90	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1900	1900	1900	1796	0
Adj Flow Rate, veh/h				6	0	104	0	73	18	122	110	0
Peak Hour Factor				0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %				0	0	0	0	0	0	0	7	0
Cap, veh/h				406	0	354	0	760	644	503	367	0
Arrive On Green				0.22	0.00	0.22	0.00	0.40	0.40	0.40	0.40	0.00
Sat Flow, veh/h				1810	0	1577	0	1900	1610	613	917	0
Grp Volume(v), veh/h				6	0	104	0	73	18	232	0	0
Grp Sat Flow(s),veh/h/ln				1810	0	1577	0	1900	1610	1531	0	0
Q Serve(g_s), s				0.1	0.0	1.2	0.0	0.5	0.1	0.2	0.0	0.0
Cycle Q Clear(g_c), s				0.1	0.0	1.2	0.0	0.5	0.1	1.9	0.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.53		0.00
Lane Grp Cap(c), veh/h				406	0	354	0	760	644	870	0	0
V/C Ratio(X)				0.01	0.00	0.29	0.00	0.10	0.03	0.27	0.00	0.00
Avail Cap(c_a), veh/h				3057	0	2664	0	3210	2721	2757	0	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh				6.4	0.0	6.9	0.0	4.0	3.9	4.4	0.0	0.0
Incr Delay (d2), s/veh				0.0	0.0	0.6	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.3	0.0	0.1	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				6.4	0.0	7.5	0.0	4.0	3.9	4.5	0.0	0.0
LnGrp LOS				A	A	A	A	A	A	A	A	A
Approach Vol, veh/h					110			91			232	
Approach Delay, s/veh					7.4			4.0			4.5	
Approach LOS					A			A			A	

Timer - Assigned Phs	2			6		8						
Phs Duration (G+Y+Rc), s	12.5			12.5		8.8						
Change Period (Y+Rc), s	4.0			4.0		4.0						
Max Green Setting (Gmax), s	36.0			36.0		36.0						
Max Q Clear Time (g_c+I1), s	2.5			3.9		3.2						
Green Ext Time (p_c), s	0.3			1.1		1.0						

Intersection Summary												
HCM 6th Ctrl Delay			5.1									
HCM 6th LOS			A									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	225	10	70	50	0	0	0	0	85	600	75
Future Volume (veh/h)	0	225	10	70	50	0	0	0	0	85	600	75
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1885	1900	1767	0				1900	1885	1900
Adj Flow Rate, veh/h	0	239	11	74	53	0				90	638	80
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	1	0	9	0				0	1	0
Cap, veh/h	0	540	25	324	530	0				360	2736	916
Arrive On Green	0.00	0.30	0.30	0.30	0.30	0.00				0.57	0.59	0.59
Sat Flow, veh/h	0	1800	83	1145	1767	0				614	4672	1564
Grp Volume(v), veh/h	0	0	250	74	53	0				272	456	80
Grp Sat Flow(s),veh/h/ln	0	0	1882	1145	1767	0				1854	1716	1564
Q Serve(g_s), s	0.0	0.0	7.5	3.9	1.5	0.0				5.0	4.4	1.6
Cycle Q Clear(g_c), s	0.0	0.0	7.5	11.4	1.5	0.0				5.0	4.4	1.6
Prop In Lane	0.00		0.04	1.00		0.00				0.33		1.00
Lane Grp Cap(c), veh/h	0	0	565	324	530	0				1086	2010	916
V/C Ratio(X)	0.00	0.00	0.44	0.23	0.10	0.00				0.25	0.23	0.09
Avail Cap(c_a), veh/h	0	0	565	324	530	0				1086	2010	916
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.79	0.96	0.96	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	19.8	24.4	17.7	0.0				7.1	6.9	6.3
Incr Delay (d2), s/veh	0.0	0.0	2.0	1.6	0.4	0.0				0.6	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	3.4	1.2	0.6	0.0				1.8	1.4	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	21.8	26.0	18.0	0.0				7.7	7.2	6.5
LnGrp LOS	A	A	C	C	B	A				A	A	A
Approach Vol, veh/h		250			127						808	
Approach Delay, s/veh		21.8			22.7						7.3	
Approach LOS		C			C						A	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	45.0	25.0	25.0
Change Period (Y+Rc), s	* 4.8	4.0	4.0
Max Green Setting (Gmax), s	* 40	21.0	21.0
Max Q Clear Time (g_c+I1), s	7.0	9.5	13.4
Green Ext Time (p_c), s	1.2	0.3	0.1

Intersection Summary	
HCM 6th Ctrl Delay	12.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	180	130	0	0	90	60	30	715	95	0	0	0
Future Volume (veh/h)	180	130	0	0	90	60	30	715	95	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	0.98		1.00	1.00		0.96	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1885	1900	1900	1885	1900			
Adj Flow Rate, veh/h	191	138	0	0	96	64	32	761	101			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	0	0	0	0	1	0	0	1	0			
Cap, veh/h	363	543	0	0	296	197	119	3012	940			
Arrive On Green	0.09	0.09	0.00	0.00	0.29	0.29	0.59	0.59	0.59			
Sat Flow, veh/h	1225	1900	0	0	1037	691	202	5105	1592			
Grp Volume(v), veh/h	191	138	0	0	0	160	298	495	101			
Grp Sat Flow(s),veh/h/ln	1225	1900	0	0	0	1728	1875	1716	1592			
Q Serve(g_s), s	10.7	4.7	0.0	0.0	0.0	5.1	5.4	4.8	1.9			
Cycle Q Clear(g_c), s	15.8	4.7	0.0	0.0	0.0	5.1	5.4	4.8	1.9			
Prop In Lane	1.00		0.00	0.00		0.40	0.11		1.00			
Lane Grp Cap(c), veh/h	363	543	0	0	0	494	1106	2024	940			
V/C Ratio(X)	0.53	0.25	0.00	0.00	0.00	0.32	0.27	0.24	0.11			
Avail Cap(c_a), veh/h	363	543	0	0	0	494	1106	2024	940			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.89	0.89	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	32.3	24.8	0.0	0.0	0.0	19.7	7.0	6.9	6.3			
Incr Delay (d2), s/veh	4.8	1.0	0.0	0.0	0.0	1.7	0.6	0.3	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	8.9	2.3	0.0	0.0	0.0	2.2	2.0	1.5	0.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.1	25.8	0.0	0.0	0.0	21.4	7.6	7.2	6.5			
LnGrp LOS	D	C	A	A	A	C	A	A	A			
Approach Vol, veh/h		329			160			894				
Approach Delay, s/veh		32.3			21.4			7.2				
Approach LOS		C			C			A				

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	46.0	24.0	24.0
Change Period (Y+Rc), s	* 4.7	4.0	4.0
Max Green Setting (Gmax), s	* 41	20.0	20.0
Max Q Clear Time (g_c+I1), s	7.4	17.8	7.1
Green Ext Time (p_c), s	1.0	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	14.8
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection ID and Name	use dropdown NB PhasingType	use dropdown SB PhasingType	use dropdown EB PhasingType	use dropdown WB PhasingType	Cycle Length	Lost Time	use dropdown Use Overlap Calculator	use dropdov NBR Overla	use dropdov SBR Overlap	use dropdov EBR Overlap	use dropdov WBR Overla	BEGIN CALCULATIONS
6: SE Water Avenue & SE Clay Street	Permitted	Permitted		Permitted	80	8	No					
7: SE Martin Luther King Jr. Boulevard & SE Stark Street		Protected	Protected	Protected	70	8	No	No	No	No	No	
8: SE Grand Avenue & SE Stark Street/ SE S	Protected		Protected	Protected	70	8	No					
							No					
							No					
							No					
							No					
							No					
							No					
							No					
							No					
							No					
							No					

1	3	4	5	6	7	8	9	10	11	12	13	14		Critical Flow Calculator					
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		WBL/EBT	EBL/WBT	NBL/SBT	SBL/NBT	V/S E/W	V/S N/S
Adj Flow Rate, veh/h	0	0	0	6	0	104	0	73	18	122	110	0	Protected	0.00	0.07	0.12	0.24		
Sat Flow, veh/h	0	0	0	1810	0	1577	0	1900	1610	613	917	0	Permitted or Split	0.00	0.07	0.20	0.04		
V/S	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.04	0.01	0.20	0.12	0.00	selected phasing	0.00	0.07	0.20	0.04	0.07	0.20
Adj Flow Rate, veh/h	0	239	11	74	53	0	0	0	0	90	638	80	Protected	0.20	0.03	0.14	0.15		
Sat Flow, veh/h	0	1800	83	1145	1767	0	0	0	0	614	4672	1564	Permitted or Split	0.13	0.06	0.15	0.00		
V/S	0.00	0.13	0.13	0.06	0.03	0.00	0.00	0.00	0.00	0.15	0.14	0.05	selected phasing	0.20	0.03	0.15	0.15	0.20	0.15
Adj Flow Rate, veh/h	191	138	0	0	96	64	32	761	101	0	0	0	Protected	0.07	0.25	0.16	0.15		
Sat Flow, veh/h	1225	1900	0	0	1037	691	202	5105	1592	0	0	0	Permitted or Split	0.16	0.09	0.00	0.16		
V/S	0.16	0.07	0.00	0.00	0.09	0.09	0.16	0.15	0.06	0.00	0.00	0.00	selected phasing	0.07	0.25	0.16	0.16	0.25	0.16
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00

Overlap Critical Flow Calculator	NBR OV	NB OV V/S	SBR OV	SB OV V/S	EBR OV	EB OV V/S	WBR OV	WB OV V/S	V/S Overlap		Intersection V/C	HCM 6th Ctrl Delay	HCM 6th LOS	Synchro ID
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	Permitted	0.00	Permitted	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.07	0.00	0.07	Permitted	0.12	Permitted	0.12	N/A		**0.29**	**5**	**A**	6
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	Protected	0.06	Protected	0.06	No OV					
Overlap Approach Phasing	Protected	0.13	Protected	0.13	0.00	0.14	0.00	0.14	N/A		**0.39**	**12**	**B**	7
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	Protected	0.16	Protected	0.16	Protected	0.16	Protected	0.16	No OV					
Overlap Approach Phasing	Protected	0.09	Protected	0.09	Protected	0.15	Protected	0.15	N/A		**0.46**	**15**	**B**	8
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	

List of Phasing Types
Protected
Permitted
Split

List of Overlap Types
Yes
No

Sheet Description:
This sheet reads in the adjusted flow rate and the saturation flow rate from Synchro and divides them to calculated the V/S for each movement.
The critical flow calculator calculates the critical v/s for each conflicting phase pair.
for protected phases, this v/s is the left turn v/s plus the max of the opposing movement v/s
for the permitted and split phases, this v/s is the max of the three movement v/s
The next step selects the proper v/s based on phasing provided
V/S by east-west and north-south is selected by taking the max of the phase pairs or by adding them (if split phasing)
If overlap calculator was selected in input section and overlap phases were indicated, then overlap v/s for intersection is calculated. See details below
If the right turn v/s is greater than the through v/s for the right turn overlap approach, then the right turn is assumed the critical movement and intersection v/c calc will use the v/s overlap instead of approach v/
The final step in v/c calculation uses the approach v/s ratios, cycle length, and lost time to calculate overall intersection v/c
Delay and LOS are read directly from the HCM 6 report

Overlap Calculator Details
Overlap calculator reads in whether an overlap phase is in use and what type of phasing is associated with the right turn approach and the overlapped approach
V/S is read in for right turn movement, and remaining approaches from previous calculations
-right turn overlap v/s is just the v/s for the right turn movement (i.e. NBR)
-right turn approach v/s is the critical v/s associated with the right turn approaches (i.e. NB/SB) and is calculated differently for protected vs split
-overlap approach v/s is the critical v/s associated with the overlap approaches (i.e. EB/WB) and is calculated differently for protected vs split phasing
The v/s overlap column sums the 3 v/s values for the overlap phasing to get the total v/s overlap to be used in the v/c calculation
If there are overlaps for both approaches (i.e. N/S or E/W), the v/s overlap will use the greater of the two for most conservative approach
Use Overlap Calculator' must be enabled and 'Use OV V/S' must be showing in V/S Overlap column in order for overlap v/s to be used in final v/c calculation

SECTION 15: BUILD QUEUING REPORTS

Intersection: 1: SE Water Avenue & SE Morrison Bridge Off Ramp

Movement	EB	NB	SB
Directions Served	LR	T	T
Maximum Queue (ft)	61	35	59
Average Queue (ft)	26	1	6
95th Queue (ft)	50	12	31
Link Distance (ft)	547	80	1152
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: SE Water Avenue & I-5 Off Ramp/SE Yamhill Street

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	TR	LT
Maximum Queue (ft)	106	137	35	84	61
Average Queue (ft)	55	53	18	38	41
95th Queue (ft)	84	98	46	63	59
Link Distance (ft)	621		232	446	80
Upstream Blk Time (%)					0
Queuing Penalty (veh)					0
Storage Bay Dist (ft)		300			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: SE Water Avenue & SE Salmon Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	35	63	20	35
Average Queue (ft)	8	34	1	9
95th Queue (ft)	30	50	7	32
Link Distance (ft)	306	219	208	446
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: SE Water Avenue & SE Main Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	35	35	35	56
Average Queue (ft)	14	27	2	9
95th Queue (ft)	40	48	17	35
Link Distance (ft)	331	220	440	208
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: SE Water Avenue & Hawthorne Bridge Off Ramp/SE Hawthorne Boulevard

Movement	EB	NB
Directions Served	LT	LTR
Maximum Queue (ft)	79	115
Average Queue (ft)	34	6
95th Queue (ft)	62	43
Link Distance (ft)	577	240
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: SE Water Avenue & SE Clay Street

Movement	WB	WB	NB	NB	SB
Directions Served	L	TR	T	R	LT
Maximum Queue (ft)	55	104	48	31	82
Average Queue (ft)	14	23	7	3	33
95th Queue (ft)	39	61	28	17	75
Link Distance (ft)		199	369		240
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	200			175	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: SE Martin Luther King Jr. Boulevard & SE Stark Street

Movement	EB	WB	WB	SB	SB	SB	SB
Directions Served	TR	L	T	LT	T	T	R
Maximum Queue (ft)	713	99	226	308	280	264	82
Average Queue (ft)	640	70	64	276	223	93	27
95th Queue (ft)	849	118	177	309	319	226	63
Link Distance (ft)	698		212	260	260	260	260
Upstream Blk Time (%)	50		1	30	6	0	
Queuing Penalty (veh)	135		2	0	0	0	
Storage Bay Dist (ft)		75					
Storage Blk Time (%)		20	3				
Queuing Penalty (veh)		7	3				

Intersection: 8: SE Grand Avenue & SE Stark Street/ SE Stark Street

Movement	EB	EB	WB	NB	NB	NB	NB
Directions Served	L	T	TR	LT	T	T	R
Maximum Queue (ft)	75	228	350	123	188	107	137
Average Queue (ft)	71	218	140	66	73	47	42
95th Queue (ft)	77	228	256	112	127	99	93
Link Distance (ft)		212	460	3150	3150	3150	3150
Upstream Blk Time (%)		60					
Queuing Penalty (veh)		174					
Storage Bay Dist (ft)	50						
Storage Blk Time (%)	68	60					
Queuing Penalty (veh)	119	68					

Zone Summary

Zone wide Queuing Penalty: 507

Intersection: 1: SE Water Avenue & SE Morrison Bridge Off Ramp

Movement	EB
Directions Served	LR
Maximum Queue (ft)	33
Average Queue (ft)	17
95th Queue (ft)	43
Link Distance (ft)	547
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: SE Water Avenue & I-5 Off Ramp/SE Yamhill Street

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	TR	LT
Maximum Queue (ft)	31	50	35	100	88
Average Queue (ft)	20	27	19	37	39
95th Queue (ft)	41	38	47	67	60
Link Distance (ft)	621		232	446	80
Upstream Blk Time (%)					0
Queuing Penalty (veh)					0
Storage Bay Dist (ft)		300			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: SE Water Avenue & SE Salmon Street

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	35	76	63
Average Queue (ft)	6	43	8
95th Queue (ft)	26	65	38
Link Distance (ft)	306	219	446
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: SE Water Avenue & SE Main Street

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	89	89	61
Average Queue (ft)	46	35	10
95th Queue (ft)	76	69	38
Link Distance (ft)	331	220	208
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: SE Water Avenue & Hawthorne Bridge Off Ramp/SE Hawthorne Boulevard

Movement	EB	NB	SB
Directions Served	LT	LTR	LTR
Maximum Queue (ft)	60	144	55
Average Queue (ft)	23	35	6
95th Queue (ft)	50	101	26
Link Distance (ft)	577	240	440
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: SE Water Avenue & SE Clay Street

Movement	WB	NB	SB
Directions Served	TR	T	LT
Maximum Queue (ft)	119	22	118
Average Queue (ft)	37	2	28
95th Queue (ft)	95	11	76
Link Distance (ft)	199	369	240
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: SE Martin Luther King Jr. Boulevard & SE Stark Street

Movement	EB	WB	WB	SB	SB	SB	SB
Directions Served	TR	L	T	LT	T	T	R
Maximum Queue (ft)	313	96	121	235	182	59	76
Average Queue (ft)	76	27	7	137	74	8	28
95th Queue (ft)	173	70	46	231	169	33	59
Link Distance (ft)	698		212	260	260	260	260
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		75					
Storage Blk Time (%)		2					
Queuing Penalty (veh)		0					

Intersection: 8: SE Grand Avenue & SE Stark Street/ SE Stark Street

Movement	EB	EB	WB	NB	NB	NB	NB
Directions Served	L	T	TR	LT	T	T	R
Maximum Queue (ft)	75	233	131	123	140	81	35
Average Queue (ft)	69	136	49	52	48	22	6
95th Queue (ft)	85	250	114	92	94	62	26
Link Distance (ft)		212	460	3150	3150	3150	3150
Upstream Blk Time (%)		5					
Queuing Penalty (veh)		11					
Storage Bay Dist (ft)	50						
Storage Blk Time (%)	44	15					
Queuing Penalty (veh)	26	24					

Zone Summary

Zone wide Queuing Penalty: 62

Intersection: 1: SE Water Avenue & SE Morrison Bridge Off Ramp

Movement	EB	SB
Directions Served	LR	T
Maximum Queue (ft)	56	55
Average Queue (ft)	27	7
95th Queue (ft)	53	32
Link Distance (ft)	547	1152
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: SE Water Avenue & I-5 Off Ramp/SE Yamhill Street

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	TR	LT
Maximum Queue (ft)	110	101	35	76	92
Average Queue (ft)	66	52	12	36	55
95th Queue (ft)	99	86	38	60	86
Link Distance (ft)	621		232	446	80
Upstream Blk Time (%)					1
Queuing Penalty (veh)					2
Storage Bay Dist (ft)		300			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: SE Water Avenue & SE Salmon Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	35	63	60	56
Average Queue (ft)	10	30	4	10
95th Queue (ft)	36	57	27	37
Link Distance (ft)	306	219	208	446
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: SE Water Avenue & SE Main Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	35	60	35	90
Average Queue (ft)	12	33	8	8
95th Queue (ft)	38	49	32	42
Link Distance (ft)	331	220	440	208
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: SE Water Avenue & Hawthorne Bridge Off Ramp/SE Hawthorne Boulevard

Movement	EB	NB	SB
Directions Served	LT	LTR	LTR
Maximum Queue (ft)	87	102	32
Average Queue (ft)	33	16	2
95th Queue (ft)	61	60	14
Link Distance (ft)	577	240	440
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)	0		
Queuing Penalty (veh)	0		

Intersection: 6: SE Water Avenue & SE Clay Street

Movement	WB	WB	NB	NB	SB
Directions Served	L	TR	T	R	LT
Maximum Queue (ft)	29	147	48	32	127
Average Queue (ft)	5	41	12	10	39
95th Queue (ft)	22	99	36	32	87
Link Distance (ft)		199	369		240
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	200			175	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: SE Martin Luther King Jr. Boulevard & SE Stark Street

Movement	EB	WB	WB	SB	SB	SB	SB
Directions Served	TR	L	T	LT	T	T	R
Maximum Queue (ft)	716	100	230	290	275	222	56
Average Queue (ft)	574	96	169	194	103	21	20
95th Queue (ft)	852	104	291	296	226	90	51
Link Distance (ft)	698		212	260	260	260	260
Upstream Blk Time (%)	34		30	5	0		
Queuing Penalty (veh)	123		46	0	0		
Storage Bay Dist (ft)		75					
Storage Blk Time (%)		78	8				
Queuing Penalty (veh)		40	9				

Intersection: 8: SE Grand Avenue & SE Stark Street/ SE Stark Street

Movement	EB	EB	WB	NB	NB	NB	NB
Directions Served	L	T	TR	LT	T	T	R
Maximum Queue (ft)	74	227	480	252	207	171	161
Average Queue (ft)	62	195	370	93	80	56	43
95th Queue (ft)	92	255	601	174	142	120	102
Link Distance (ft)		212	460	3150	3150	3150	3150
Upstream Blk Time (%)		22	36				
Queuing Penalty (veh)		70	0				
Storage Bay Dist (ft)	50						
Storage Blk Time (%)	45	49					
Queuing Penalty (veh)	88	59					

Zone Summary

Zone wide Queuing Penalty: 436

Intersection: 1: SE Water Avenue & SE Morrison Bridge Off Ramp

Movement	EB
Directions Served	LR
Maximum Queue (ft)	33
Average Queue (ft)	27
95th Queue (ft)	46
Link Distance (ft)	547
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: SE Water Avenue & I-5 Off Ramp/SE Yamhill Street

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	TR	LT
Maximum Queue (ft)	58	101	84	79	62
Average Queue (ft)	33	31	23	39	41
95th Queue (ft)	54	56	55	63	60
Link Distance (ft)	621		232	446	80
Upstream Blk Time (%)					0
Queuing Penalty (veh)					0
Storage Bay Dist (ft)		300			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: SE Water Avenue & SE Salmon Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	60	88	63	35
Average Queue (ft)	15	42	2	7
95th Queue (ft)	45	68	21	28
Link Distance (ft)	306	219	208	446
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: SE Water Avenue & SE Main Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	62	117	35	56
Average Queue (ft)	40	39	3	7
95th Queue (ft)	59	77	19	31
Link Distance (ft)	331	220	440	208
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: SE Water Avenue & Hawthorne Bridge Off Ramp/SE Hawthorne Boulevard

Movement	EB	NB	SB
Directions Served	LT	LTR	LTR
Maximum Queue (ft)	55	56	23
Average Queue (ft)	22	10	1
95th Queue (ft)	50	38	8
Link Distance (ft)	577	240	440
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: SE Water Avenue & SE Clay Street

Movement	WB	WB	NB	NB	SB
Directions Served	L	TR	T	R	LT
Maximum Queue (ft)	29	115	27	27	61
Average Queue (ft)	2	65	2	1	24
95th Queue (ft)	14	118	12	9	60
Link Distance (ft)		199	369		240
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	200			175	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: SE Martin Luther King Jr. Boulevard & SE Stark Street

Movement	EB	WB	WB	SB	SB	SB	SB
Directions Served	TR	L	T	LT	T	T	R
Maximum Queue (ft)	368	100	169	280	247	34	60
Average Queue (ft)	306	64	32	152	80	6	19
95th Queue (ft)	481	113	89	281	204	26	50
Link Distance (ft)	698		212	260	260	260	260
Upstream Blk Time (%)				2	0		
Queuing Penalty (veh)				0	0		
Storage Bay Dist (ft)		75					
Storage Blk Time (%)		29	3				
Queuing Penalty (veh)		15	2				

Intersection: 8: SE Grand Avenue & SE Stark Street/ SE Stark Street

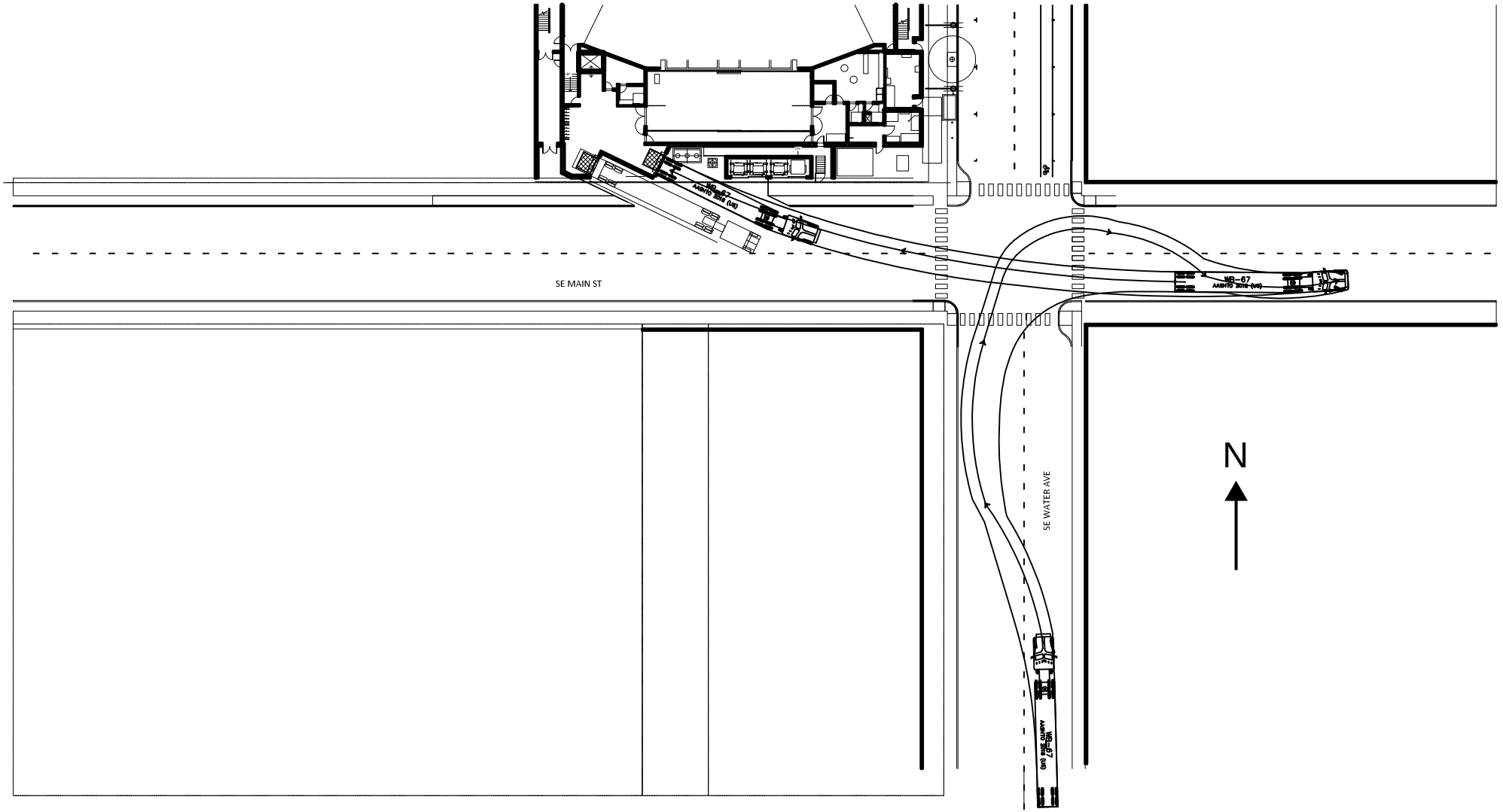
Movement	EB	EB	WB	NB	NB	NB	NB
Directions Served	L	T	TR	LT	T	T	R
Maximum Queue (ft)	75	230	298	124	162	130	76
Average Queue (ft)	70	203	115	57	62	35	21
95th Queue (ft)	84	252	229	98	125	88	58
Link Distance (ft)		212	460	3150	3150	3150	3150
Upstream Blk Time (%)		24					
Queuing Penalty (veh)		75					
Storage Bay Dist (ft)	50						
Storage Blk Time (%)	64	46					
Queuing Penalty (veh)	83	83					

Zone Summary

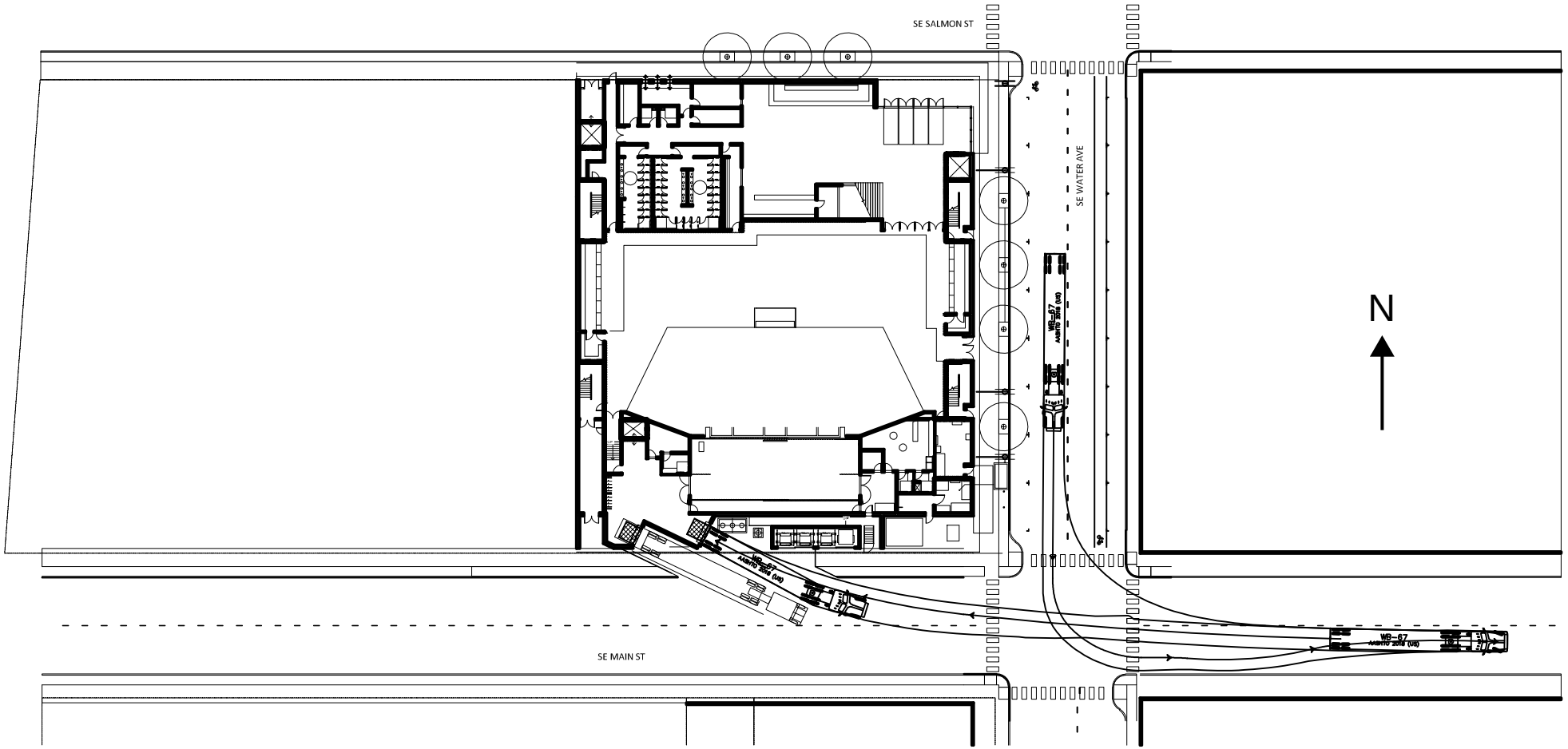
Zone wide Queuing Penalty: 257

SECTION 16: AUTO TURN ANALYSIS

WB-67 Turning Templates:
Northbound Pull In



WB-67 Turning Templates:
Southbound Pull In



MACKENZIE.

May 23, 2024

City of Portland
Bureau of Development Services
Attention: Andrew Gulizia
1900 SW 4th Avenue, Suite 5000
Portland, OR 97201

Re: **Live Nation Conditional Use**
LU 23-111784 CU AD Incomplete Determination Letter
Project Number 2220204.00

Dear Andy:

In response to your plan review checklist dated January 12, 2024, we have addressed the items below, with our responses following your comments.

LAND USE SERVICES

I. Information Necessary To Complete Application

1. *Area plans- Please submit a revised narrative which addresses relevant policies from the Buckman Neighborhood Plan(https://www.portland.gov/bps/planning/comp-plan-2035/documents/buckman-neighborhood-plan-1991/download) and the Central City 2035 Plan (https://www.portland.gov/bps/planning/cc2035/cc2035-documents#toc-cc2035-as-adopted-plan)in your discussion of "desired character" for the Adjustment Review approval criterion in 33.805.040.B. Area plans are referenced in the definition of "desired character" in 33.910.*

Response: A revised narrative is being resubmitted as part of this completeness response which includes responses to relevant portions of the Buckman Neighborhood Plan and the Central City 2035 Plan.

2. *Stormwater planter clarification- Parts of the narrative refer to an at-grade stormwater facility, but the plans seem to show the stormwater planter on top of a roof. Please clarify this. (Clarification is also requested in BES' memo, attached.)*

Response: It will be an elevated stormwater planter. The narrative has been revised to correct this.

3. *Floor plans- Please add a floor plan for each level of the building to your plan set.*

Response: Floor plans for each level have been added; see sheets Z101a-Z104.

4. *Portland Bureau of Transportation (PBOT) issues- Please work with PBOT staff on the issues identified in their attached memo.*

Response: PBOT issues have been addressed. See PBOT responses below.

5. *Ground floor active use standard- Since the site abuts SE Water Ave., 33.510.225 requires active use areas such as lobbies, offices, or concessions to occupy at least 50% of each street-facing façade. This code section also includes dimensional standards for the active use areas. Please note the City Attorney's Office has determined that this*

standard applies to all street frontages on the site, not just the SE Water Ave. frontage. Please provide a ground floor plan and section drawing that shows how this standard is addressed for each of the three street frontages. If necessary, you could apply for an additional Adjustment to allow the "back of house" to face one of the streets. If you apply for an additional Adjustment, please address the approval criteria for this Adjustment (33.805.040.A-F) in a revised narrative. Upon receipt of a revised narrative requesting an additional Adjustment, I would ask our administrative staff to send you an invoice and payment instructions for the additional Adjustment fee ($3,937), unless you withdraw one of the Adjustment requests you already made as suggested in Section II, below. In your responses to the Adjustment Review approval criteria for this standard, you could note the Housing Regulatory Relief Project currently under review by the City Council would limit the applicability of this standard to streets identified on Map 510-9. (However, even if this code update is adopted as proposed, this project would remain vested under the current code language per 33.700.080.)

Response: The revised plan set includes sheet Z101a which shows the areas counted toward the ground floor active use requirement. See the revised narrative for a detailed response on compliance. No Adjustments are required.

II. Issues to Consider

1. *Photo simulation- To better make your case for the building design, please consider providing a photo simulation. Interested parties viewing the elevation drawings alone might not visualize the building design as it's intended.*

Response: A photo simulation has been added to the submission. See Attachment 6.

2. *Short-term bike parking standard- The PBOT memo attached indicates PBOT will oppose the Adjustment to waive the requirement for short-term bike parking on-site (33.266.200.B). Since staff is unlikely to recommend approval for this Adjustment, please consider withdrawing this Adjustment request. Without this Adjustment, a fee-in-lieu payment under 33.266.210.E.1.b would be added to the fees due at building permit issuance ($27,700 under the current fee schedule). Temporary bike parking in the right-of-way could still remain part of your transportation demand management (TDM) proposal for the Conditional Use Review approval criteria if agreed with PBOT. If you withdraw this Adjustment request, we will refund $3,937 of the Adjustment Review fees you paid unless you add an Adjustment request for the ground floor active use standard mentioned in Section I, above.*

Response: The temporary bike parking component of the project has been removed; instead, the applicant proposes as many short-term bike parking spaces as are possible in the Salmon Street right-of-way (on-street parking zone) in front of the venue (100 spaces). These will be permitted through a Public Works permit but still require an Adjustment as they will not be on-site. This approach has been discussed with PBOT in subsequent conversations and remains part of the request. If the Adjustment is not approved, the applicant will pay into the bike parking and request that PBOT provide the spaces for us.

3. *Ecoroof standard- Since a significant reduction to the ecoroof standard in 33.510.243 is requested, please consider the following to increase the likelihood of a staff recommendation for approval:*

   - *Provide a planting plan for the ecoroof areas and details on how the plants selected are likely to fare in the conditions provided and what specific habitat benefits they will provide. Ideally, you would be able to show how your planting plan would create denser ecoroof plantings than usually seen, with taller and more varied plants.*

   Response: A planting plan has been provided for the ecoroof area with details on how the plants will fare in the conditions provided and specific habitat benefits that will be provided. See sheets L202 and L205. As shown, plants

selected include native plants that support pollinators, butterflies, birds, and bees and include a mix of herbaceous and succulent plants.

The landscape plans propose the utilization of a geocell grid within the ecoroof assembly to mitigate potential soil erosion issues, which could adversely affect the long-term health of the plants. The proposed ecoroof plant species have been selected for their ability to provide habitat and ecological benefits. These species consist of a mix of herbaceous and native plants that support pollinators, butterflies, birds, and other wildlife. The proposed plant sizes will be denser than typical for the allowable media depth, ensuring a substantial impact upon installation.

- *Provide more detailed plans including a planting plan for the "ecoscreen" mentioned in your narrative and provide details on how the plants selected are likely to fare in the conditions provided (green walls often fail over time) and what specific habitat benefits the plants will provide.*

Response: The provided landscape plan L202 and the updated architectural plans and rendering show more information on this feature. Selected plants include northwest natives and those that host caterpillars and attract songbirds, pollinators, butterflies, and hummingbirds.

- *Consider how the proposed ecoroof area can be expanded further, even if onto sloped roof forms. To the extent that mechanical equipment needs constrain this, explain how the mechanical equipment needs were determined.*

Response: The area designated as Stage Roof requires a mechanical unit for HVAC needs of the stage itself, precluding the ability to add eco-roof to this portion. The large Sloped Roof portion is of a long span incapable of supporting additional load and the Upper Roof is primarily dedicated to additional mechanical units to support visitor spaces. A narrow east and west eco-roof is proposed, partially over stair cores and on framing adapted to accommodate the additional loading.

- *Consider if an at-grade planted area designed for wildlife habitat can be provided on one of the neighboring lots under the same ownership.*

Response: The project is a partnership between the owner, developer, and tenant. No other lots are available for the proposed development.

4. *Low carbon buildings standard- Please note this requirement in 33.510.244 would apply to a building permit review.*

Response: Understood.

5. *Tree density standard. Please note the tree density requirement in 11.50.050 would apply to a building permit review. 11.50.040.D.3.c provides a fee-in-lieu option.*

Response: Understood.

III. Time to Complete Application

The Portland Zoning Code allows you up to 180 days to complete your application. Since the 180-day period began on the day we received the application, the deadline to make your application complete is Monday, June 17, 2024.
Response: Understood.

IV. Determination of a Complete Application

The application will be determined complete when you have submitted:

- *All of the requested information included in Section I, above. If you cannot provide all of the requested information at one time and intend to submit additional information, please include a written statement with each separate submittal indicating that you still intend to provide the additional missing information by the Monday, June 17, 2024 deadline, or*

- *Some of the requested information included in Section I, above, and a written statement that no additional information will be provided; or*

- *A written statement that none of the requested information included in Section I, above, will be provided.*

Response: All of the requested information requested has been included with this completeness submission.

ENVIRONMENTAL SERVICES

- *The applicant has submitted the minimum level of information for BES to recommend the application be deemed complete and to begin conducting a full review of the land use application. As staff begins reviewing the application against relevant approval criteria and BES code requirements, additional information may be requested.*

Response: Understood.

- *BES requests clarity and alignment between the stormwater report and the associated CU narrative and application. For example, the stormwater report and the CU narrative indicate that stormwater will be managed with an at-grade planter, however, the application and site plan identify partial eco-roof coverage and an elevated stormwater planter. Please update the submittal materials so they are all in alignment.*

Response: An elevated stormwater planter is proposed. This response in the narrative has been revised.

PORTLAND BUREAU OF TRANSPORTATION

- *Transportation Impact Study (TIS): The applicant has submitted a TIS to support the Major Event Entertainment approval criteria listed in 33.815.215, which is being reviewed at this time. However, upon first review by PBOT Traffic Engineering, there are elements which will needed to be added or expanded upon prior to approval of the TIS. More information will be provided once review of the TIS is complete.*

Response: Understood. The applicant has been coordinating with PBOT during the development of the revised TIS included with this response.

- *Bike Parking Adjustment: PBOT is not supportive of waving the short-term bike parking. As recommended in the applicant's Transportation Demand Management (TDM) Plan C.2, paying into the bike fund allows PBOT to direct funding to install permanent bike racks and/or bike corals within the immediate vicinity of the subject site. PBOT does not support this Adjustment request.*

Response: The bike parking proposal has been revised to include 100 spaces in the on-street parking area of SE Salmon Street only, adjacent to the building. The travel lane will not be affected. We understand this can be approved through a standard PBOT process, but an Adjustment to the Zoning Code short-term bicycle parking is still required. If the Adjustment is not approved, the applicant will pay into the bike parking and request that PBOT provide the spaces for us.

- *On-Site Loading Adjustment: PBOT has concerns regarding the change in proposed truck loading from the Pre-Application Conference (22-128857 PC) to what was proposed in the TIS. PBOT's response in Pre-App stated, "Providing sufficient on-site loading is to the site's benefit and PBOT does not recommend an Adjustment to loading." However, as also noted, if requesting to waive or reduce on-site loading requirements, a Loading Demand Study is required. The applicant's TIS scope did not propose to waive on-site loading, therefore further analysis of potential off-site loading impacts was not reviewed prior to submittal of the formal TIS. PBOT's Traffic Engineers have concerns regarding the safety of all modes by the proposed truck turning movements into eastbound SE Main St and then backing up across SE Water Ave into the proposed loading docks. The applicant will need to further demonstrate how all truck movements occurring west of SE Water Ave are possible or infeasible to avoid impacting road users of SE Water Ave. The applicant should also explore a property line adjustment or easement with the neighboring property to the west to accommodate on-site loading perpendicular to SE Main St, so Trucks are able to enter and exit SE Main in a forward motion.*

  PBOT understands the nature of large vehicles needing to access and deliver equipment to support the uses of the proposed development and is open to work with the applicant to explore safe alternative truck loading options to support the project.

  Therefore, at this time, the applicant has not demonstrated to the satisfaction of the City Traffic Engineer that in the materials provided the proposed truck loading movements will not impede the safety of all modes utilizing the Right-of-Way, and as such does not support the truck routing and loading in the ROW as shown. This item remains outstanding.
  Response: The updated TIS includes a cross section detail, truck movement diagrams, traffic control plan, and more analysis of alternate inbound and outbound truck routes and associated turning radius studies. As referenced in the updated TIS, final design and overall street layout will be resolved in through the Angle Loading Permit and/or Public Works Permitting processes.

  If approved, the following information will be required prior to PBOT' support of the Land Use application:

  - *Permits and Approvals: Depending on how the use is ultimately permitted, preliminary support / approvals must be documented and attached as an exhibit, provided prior to PBOT's support of the Land Use application. This item remains outstanding.*

  Response: This is understood. The applicant plans to work closely with PBOT during the Conditional Use review to resolve issues.

  - *Neighboring Property Agreements: TIS materials noted that "additional buses will be staged elsewhere on private property". With a full build out of the site, there are not additional locations on the subject site to place buses. Any agreements with other nearby properties to store additional vehicles will need to be documented and attached as an exhibit. This item remains outstanding.*

  Response: No specific properties have been confirmed, but there are several options nearby. The TIS includes a curb extension into SE Main Street that would shift the travelway slightly south for drivers heading westbound away from SE Water Avenue and would provide space for a tour bus to be staged on-street during events to the east of the loading dock for the proposed venue (see TIS Figure 10).

- *Traffic Control Plan: TIS materials did not provide specifications on a proposed Traffic Control Plan when loading vehicles. Traffic Control Plans are subject to permitting through PBOT Temporary Street Use and Permitting (TSUP). See more information under TDM below. This item remains outstanding.*

Response: A Traffic Control Plan has been added to the revised TIS as Section 1 of the appendix.

- *Driveway Design Exception (DDE): In accordance with TRN 10.40.E.1.a(4), Commercial uses are permitted a driveway width between 20-24 feet wide. The submitted plan proposes a driveway much wider than standard. The applicant has not submitted a DDE application at time of response. An approved DDE will be needed prior to PBOT's support of the Land Use application. This item remains outstanding.*

Response: A DDE for the driveway width has been submitted and conditionally approved (24-021354-TR).

- *TDM Plan: The applicant's TDM is lacking information needed to support the Conditional Use request.*

  - *TDM Strategy B.2 recommended temporary closure of SE Main St to facilitate event loading and staging. PBOT generally supports this strategy, however, additional information including but not limited to the limits of closure, length of closure, number of times per year, site plan, and location of fire lane. etc. is needed to complete our review. This item remains outstanding.*

    Street closures are permitted through PBOT Temporary Street Use and Permitting (TSUP) program. Current rates are $396/week for a street closure, plus an additional $131/week for a sidewalk closure. TSUP fees are updated annually. Moreover, twice a year, there are moratoriums on permits in this area due to city-wide events. More information can be found here:

    https://www.portland.gov/transportation/permitting/temporary-street-use-permitting-tsup.

Response: Former TDM Strategy B.2 is no longer in the TDM plan, just in the TIS as a strategy for loading. The revised Traffic Control Plan provides more information about how this will operate. The applicant team will work with PBOT on the details of an Angle Loading Permit to accommodate the daily truck loading/unloading operations of the proposed use.

This strategy also recommended temporary bike and scoter parking in this area, thus mixing loading / back-of-house uses with event attendees. PBOT encourages the applicant to reconsider this strategy as mixing users could be problematic.

Response: No temporary bike or scooter parking is proposed in the SE Main Street ROW. The movable racks for short-term bike parking in the SE Salmon Street ROW are no longer proposed; instead 100 permanent short-term racks are proposed. Long-term bike parking will be provided in an area that is convenient and secure for employees and can be accessed via the corridor from the southwest (primarily employee) entrance. See Z101a and TIS Figure 15.

  - *TDM Strategy B.1 & C.1 recommended temporary closure of SE Salmon to facilitate bike and scoter parking. PBOT generally supports this strategy, however, additional information including but not limited to the limits of closure, length of closure, number of times per year, site plan, and location of fire lane / through bike lane, etc. is needed to complete our review. Similar to above, closure would incur additional TSUP permits and fees. This item remains outstanding.*

The applicant should be aware that closure of two streets and two sidewalks approximately every weekend could cost the applicant approximately $54,808 per year in fees.

Strategy B.1 also recommended to further study the feasibility of permanent closure of both lanes of SE Salmon Street west of SE Water Ave. Portland Transportation System Plan (TSP) classifies this section of SE Salmon as a Major City Walkway, Major City Bikeway and is the primary route connecting to the Eastbank Esplanade. PBOT does not support this TDM measure.

Response: Temporary partial street closure for movable racks for short-term bike parking in the SE Salmon Street ROW is no longer proposed. Bicycle parking is proposed within the on-street parking lane of the frontage of the venue on SE Salmon Street. No closure of SE Salmon Street is proposed.

- *TDM Strategy B.3 will be completed by the applicant abutting the site associated with required frontage improvements.*

Response: Lighting will be provided along the frontage consistent with City standards.

- *TDM Strategy E.1 calls for designated special event loading/ride hailing zones on streets that do not border the proposed site. This is not a typical PBOT process and is not supported by PBOT at this time. The applicant should consider, however, the utilization of SE Main St as the location for Ride Hailing services.*

Response: Specific locations for ride hailing zones are not proposed. Special event loading zones could be implemented to allow for pre-event drop-off and post-event pick-up activity at locations surrounding the proposed venue, although the final locations are to be determined through future coordination with the venue operator, ride hailing companies, and PBOT. The TIS has been updated to reflect this. We plan to coordinate this through the Public Works permit process.

- *Curb Extension into SE Water: TIS materials indicate that a new curb extension is proposed at SE Salmon St. However, this location is identified on PBOT's Curb Extension Exemption map as noted in TRN 1.28. Therefore, no curb extension will be permitted at this location. Please remove from plans.*

Response: Proposed curb extensions have been revised following discussions with PBOT and are proposed as part of transportation management. See C100 and TIS Figure 10.

Please contact me if you have any questions.

Sincerely,

Suzannah Stanley
Land Use Planner

Enclosure(s): Conditional Use Narrative (Revised)
Attachment 2 – Plans (Revised)
Attachment 3 – Traffic Impact Study (Revised)
Attachment 4 – Stormwater Report (Revised)
Attachment 6 – Photo Simulation (New)

MACKENZIE.

CONDITIONAL USE AND ADJUSTMENT

To
City of Portland

For
Central Eastside Venue

Dated
December 19, 2023
(Revised March 22, 2024)

Project Number
2220204.00

MACKENZIE
Since 1960

RiverEast Center | 1515 SE Water Avenue, Suite 100, Portland, OR 97214
PO Box 14310, Portland, OR 97293 | T 503.224.9560 | www.mackenzie.inc

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3. Traffic Impact Study
4. Stormwater Report
5. Context Images
6. Photo Simulation

I. PROJECT SUMMARY

Applicant:	Jonathan Malsin Beam Development 1001 SE Water Avenue, Suite 400 Portland, OR 97214
Owner:	PDC DBA Prosper Portland 222 NW 5th Avenue Portland, OR 97209
Site Address:	Between Main Street and Salmon Street on SE Water Avenue Portland, OR 97214
Assessor Site Acreage:	0.80 AC (34,862 SF) (before dedications), 0.74 AC (32,040 SF) after dedications
Zoning:	General Industrial (IG1)
Comprehensive Plan:	Industrial Sanctuary
Plan District:	Central City Subdistrict: Central Eastside
Existing Structures:	N/A

Request:	- Conditional Use for Major Event Entertainment Use
	- Adjustments to standards:
	  - 33.266.200.B.1. (number of short-term bike parking spaces provided on the site)
	  - 33.266.310.C.2.c. (number of Standard A loading spaces located entirely on the site)
	  - 33.510.243.B.1. (ecoroof coverage)

Project Contact:	Suzannah Stanley Mackenzie 1515 SE Water Avenue, Suite 100 Portland, OR 97214

II. INTRODUCTION

Description of Request

The applicant is seeking Conditional Use approval for a proposed event venue on a vacant lot in a General Industrial 1 (IG1) zone. Three Adjustments are also requested to allow alternative approaches for short-term bicycle parking, loading area, and ecoroof requirements; short-term bicycle parking and loading will be provided partially in the SE Main Street right-of-way, loading will be provided by extending into the right-of-way, and the structural design of the roof does not allow for 100% ecoroof coverage.

Site and Surrounding Land Uses

The subject site is 0.80 acres (34,862 SF) and is currently vacant. The lot abuts SE Salmon Street to the north, SE Water Avenue to the east, and SE Main Street to the south. To the west is another vacant lot. The area is just east of the Eastbank Esplanade and Interstate-5. The lot is zoned General Industrial (IG1) and is surrounded by other IG1 zoned lots.

Description of Proposed Development

The applicant is proposing a 98,500 SF, four-story event venue with a 31,600 SF footprint. The building will take up over 80% of the lot. The remaining area will be landscape or hardscape area for pedestrians. The building will have a 2,100 SF ecoroof. The building will have two main entrances, each near the northeast and northwest corners.

Aerial Image – Project Site

III. CONDITIONAL USE COMPLIANCE

33.140 Employment and Industrial Zones

33.140.100 Primary Uses

Table 140-1
Employment and Industrial Zone Primary Uses

Use Categories	EG1	EG2	EX	IG1	IG2	IH
Residential Categories						
Household Living	N	N	Y	CU [1]	CU [1]	CU [1]
Group Living	N	N	Y	CU [1]	CU [1]	CU [1]
Commercial Categories						
Retail Sales And Service	L/CU [2]	L/CU [2]	Y	L/CU [3]	L/CU [4]	L/CU [5]
Office	Y	Y	Y	L/CU [3]	L/CU [4]	L/CU [5]
Quick Vehicle Servicing	Y	Y	N	Y	Y	Y
Vehicle Repair	Y	Y	Y	Y	Y	Y
Commercial Parking	CU [13]	CU [13]	CU [13]	CU [13]	CU [13]	CU [13]
Self-Service Storage	L [7]	L [7]	L [6]	Y	Y	Y
Commercial Outdoor Recreation	Y	Y	Y	CU	CU	CU
Major Event Entertainment	CU	CU	CU	CU	CU	CU
Industrial Categories						
Manufacturing And Production	Y	Y	Y	Y	Y	Y
Warehouse And Freight Movement	Y	Y	Y	Y	Y	Y
Wholesale Sales	Y	Y	Y	Y	Y	Y
Industrial Service	Y	Y	Y	Y	Y	Y
Bulk Fossil Fuel Terminal	L [15]	L [15]	N	L [15]	L [15]	L [15]
Railroad Yards	N	N	N	Y	Y	Y
Waste-Related	N	N	N	L/CU [7]	L/CU [7]	L/CU [7]

Y = Yes, Allowed
L = Allowed, But Special Limitations
CU = Conditional Use Review Required
N = No, Prohibited

Notes:

- The use categories are described in Chapter 33.920.
- Regulations that correspond to the bracketed numbers [ ] are stated in 33.140.100.B.
- Specific uses and developments may also be subject to regulations in the 200s series of chapters.

Response: The proposed use – an event venue – is considered Major Event Entertainment. Conditional Use review is required for this use in the IG1 zone; this application requests that review.

33.815 Conditional Uses

33.815.040 Review Procedures

The procedure for reviewing conditional uses depends on how the proposal affects the use of, or the development on, the site. Subsection A, below, outlines the procedures for proposals that affect the use of the site while Subsection B outlines the procedures for proposals that affect the development or reduce the conditional use site boundary. Proposals may be subject to Subsection A or B or both.

The review procedures of this section apply unless specifically stated otherwise in this Title.

Proposals may also be subject to the provisions of 33.700.040, Reconsideration of Land Use Approvals.

A. Proposals that affect the use of the site.

1. A new conditional use. A request for a new conditional use is processed through a Type III procedure.
Response: This application is for a new Conditional Use, a Type III review.

2. Changing to another use:…
3. Adding another use…
4. Changes to an existing conditional use…
Response: This application is for a new Conditional Use. These standards do not apply.

5. Conditional uses within institutional campuses in the IR zone…
6. Conditional uses in landmarks…
Response: This proposal does not include institutional campuses in the IR zone or landmarks. These standards do not apply.

B. Proposals that alter the development of an existing conditional use. Alterations to the development on a site with an existing conditional use and reducing the boundary of a conditional use site may be allowed, require an adjustment, modification, or require a conditional use review, as follows:…
Response: This proposal is for a new Conditional Use. This provision does not apply.

33.815.215 Major Event Entertainment

These approval criteria ensure that the potentially large size and impacts of these uses are not harmful to surrounding areas and that transportation services are or will be sufficient to serve the use. The approval criteria are:

A. Public services.

1. The proposed use is in conformance with the street designations shown in the Transportation Element of the Comprehensive Plan;
Response: As described in the TIS in Attachment 3, the proposed use is appropriate for the site's traffic street designations. Additionally, the design classifications (SE Salmon Street and SE Main Street are Local Streets, and SE Water Avenue is a Neighborhood Main Street) are also suited for the proposed land use. The intended land use of these designations is:

- SE Salmon Street and SE Main Street (Local Streets): Local Streets are multimodal and important for local circulation of trucks in commercial and industrial areas.
- SE Water Avenue (Neighborhood Main Street): These are segments of Neighborhood Corridors located within the Central City and areas of intensive commercial activity. They are intended to serve a mix of uses which are oriented toward the street.

The street frontages of the proposed venue will be improved to feature wider sidewalks corridors on SE Main Street and SE Salmon Street, consistent with their local street designations in a

Pedestrian District and along SE Water Avenue, consistent with its Major City Walkway and Neighborhood Main Street designations.

It is important to note that the Local Streets along the site's north and south frontages (SE Salmon Street and SE Main Street) terminate as dead ends at the west, adjacent to the Eastbank Esplanade and the I-5 corridor. Because there is no through traffic, local circulation on these streets is light.

As described in the TIS, the proposed use will not impede mobility and streets will continue to fully accommodate truck movements as well as all modes. Cyclists are expected to utilize the Eastbank Esplanade, Major City Bikeways along SE Water Avenue and SE Salmon Street, and the City Bikeway along SE Main Street to travel to/from areas surrounding the proposed venue.

2. *If the proposed use will be located in an industrial zone, it will not have a significant adverse effect on truck and freight movement;*

Response: As noted in the TIS, the project is not expected to significantly impact truck movement and will protect the important freight connection between the Central Eastside and nearby regional truck routes along Interstate 5 and OR 99E. Adjacent and nearby streets will continue to fully accommodate truck movements (and all modes of transportation). The loading dock and staging area for the proposed venue will be located away from the SE Water Avenue Priority Truck Street to allow efficient passage for large vehicles. See the updated Traffic Control Plan. This standard is met.

3. *Transportation system:*

   a. *The transportation system is capable of supporting the proposed use in addition to the existing uses in the area. Evaluation factors include safety, street capacity, level of service, connectivity, transit availability, availability of pedestrian and bicycle networks, on-street parking impacts, access restrictions, neighborhood impacts, impacts on pedestrian, bicycle, and transit circulation. Evaluation factors may be balanced; a finding of failure in one or more factors may be acceptable if the failure is not a result of the proposed development, and any additional impacts on the system from the proposed development are mitigated;…*

Response: As stated in the TIS and its attached Transportation and Parking Demand Management (TDM) Plan, with the recommended and planned improvements, the transportation system is capable of safely supporting the proposed development in addition to accommodating the existing uses. The site is very accessible to pedestrians and bicyclists and is well-served by a network of continuous sidewalks and bike facilities on the surrounding streets as well as nearby existing private vehicle parking, and transit stops. See the TIS for more discussion on the system in general, and the itemized responses below.

…safety,…

Response: The proposed enhancements such as frontage improvements and those described in the TDM (attached to the TIS) will improve safety.

…street capacity,…

Response: Tables 17-19 in the TIS provide the post project analysis; no impacts were identified.

…level of service,…

Response: Table 17 shows all study intersections are expected to continue to meet mobility targets.

…connectivity,…
Response: The pedestrian and bikeway discussions in the TIS address connectivity. The project is adjacent to a well-connected system and has connections to transit stops and other destinations. Also, see the TDM plan (attached to the TIS) for discussion on these modes.

…transit availability,…
Response: See the transit travel demand and access discussion in the TDM plan, which addresses where transit stops are located and what service is running during the events.

…availability of pedestrian and bicycle networks,…
Response: The TIS and the TDM plan (attached to the TIS) explain that these are available.

…on-street parking impacts,…
Response: The parking analysis in the TIS explains the supply exceeds demand; also, see the TDM plan (attached to the TIS).

…access restrictions,…
Response: As noted in the TIS, loading access is not allowed on two streets; this means no driveways for loading are allowed: "Loading is not allowed on the SE Water Avenue and SE Salmon Street frontages of the proposed venue given the Major City Bikeway designation that prohibits it." Loading access is not proposed on these limited streets.

…neighborhood impacts,…
Response: The TIS discusses site conditions and land use. All other components of this response are related to impacts in general.

…impacts on pedestrian, bicycle, and transit circulation.
Response: The proposed "impact" is the amount of trips the site generates, summarized in the TIS. The improvements in the TIS and TDM plan address these new trips. There are no expected off-site impacts. The Conceptual Traffic Control Plan and flagging operations plan described and shown in the TIS shows how truck movements can occur safely.

This standard is met.

b. Measures proportional to the impacts of the proposed use are proposed to mitigate on- and off-site transportation impacts. Measures may include transportation improvements to on-site circulation, public street dedication and improvement, private street improvements, intersection improvements, signal or other traffic management improvements, additional transportation and parking demand management actions, street crossing improvements, improvements to the local pedestrian and bicycle networks, and transit improvements.

Response: The proposed on-site "impact" is the amount of trips the site generates, summarized in the TIS. Mitigations are summarized in the TIS and TDM plan and below. There are no expected off-site impacts. The development's street frontages will be improved to feature wider sidewalks, to include 12' sidewalk corridors on SE Main Street and SE Salmon Street, consistent with their local street designations in a Pedestrian District,

and a 15' sidewalk corridor along SE Water Avenue, consistent with its Major City Walkway and Neighborhood Main Street designations. Improvements at southwest corner of the SE Water Avenue/SE Salmon Street intersection will encourage safe and convenient crossings of SE Water Avenue for pedestrians walking between nearby destinations. See the TIS for more discussion on proposed measures.

A TDM plan (attached to the TIS) was also prepared for the proposed project to reduce the impact of events on the transportation system and provide employees and attendees with information and incentives to use transportation methods other than single occupancy vehicles. The plan provides strategies to increase the transit, walking, and biking travel options, along with traffic management techniques to ensure that people who travel via motor vehicle effectively navigate to their parking location with fewer delays than would occur under an unmanaged setting.

This standard is met.

c. Transportation improvements adjacent to the development and in the vicinity needed to support the development are available or will be made available when the development is complete or, if the development is phased, will be available as each phase of the development is completed.

Response: As discussed in the TIS, the proposed improvements that are needed to support the venue will be made by the completion of the development in 2025. This standard is met. Additional nearby projects identified in previous studies or plans are not related to project trips and will be completed later by the City as funding becomes available.

4. Public services for water supply, police and fire protection are capable of serving the proposed use, and proposed sanitary waste disposal and stormwater disposal systems are acceptable to the Bureau of Environmental Services.

Response: An Early Assistance meeting was held mid 2022 in which the Portland Water Bureau stated that water is available from the 12" CI water main in SE Water Avenue. The Bureau stated that if the service is found to be inadequate, it can be resized at the expense of the Applicant. In the same EA meeting, BES found that sanitary service is available in SE Water Avenue (12") and if upsizing is needed, that can be done at the expense of the Applicant. BES also found that stormwater infrastructure is available in SE Main Street (8") and SE Water Avenue (12"). See the attached utility plan (sheet C200). The project will pay the fee in lieu of public stormwater management.

PF&R stated in the EA meeting that the Applicant is expected to be able to meet access and water supply requirements. As shown in the utility plan, these services will be used. The Applicant will also pay into the special circumstances fund for off-site stormwater management. Portland Police service is available in the area. Existing public infrastructure is expected to be sufficient, but can be upgraded if necessary as noted by these bureaus, verified through building permit. This standard is met.

B. Appearance. The appearance of the facility is consistent with the intent of the zone in which it is to be located and with the character of the surrounding uses and development;

Response: The intent of the General Industrial Zones is to "promote viable and attractive industrial areas" and the General Industrial 1 (IG1) zone is described in the code as generally having "smaller lots and a grid

block pattern. The area is mostly developed, with sites having high building coverages and buildings which are usually close to the street."

From the exterior, the proposed building will have a similar look and feel to a very upscale warehouse, which will allow it to blend into the industrial area and improve the attractiveness of the area in general. See Attachment 5, which shows how the proposed building exterior design was inspired by existing nearby building exteriors. The proposed building will be four stories in height, similar to the height of surrounding buildings. The building will occupy 31,600 SF of the 32,040 SF lot (after dedications), giving the site a high building coverage ratio. The building's perimeter walls will be at the lot line of abutting street frontages to the north and east, and at or within several feet along the south elevation.

Additionally, other similar uses such as venues, bars, and entertainment exist in the nearby area, including the following listed below. The event venue facility will be very consistent with the character of these surrounding uses and their associated development because it will be in the same or complementary use categories. Event attendees could visit the bars and restaurants before or after attending an event at the proposed venue or the existing entertainment or private event spaces.

- Entertainment: Oregon Museum of Science and Industry (OMSI), Portland Night Market, and Grand Central Bowl.
- Event Venues: Exchange Ballroom, Union/Pine, The Melody Event Center, The Evergreen, and The Redd.
- Bars/Restaurants: Wayfinder, Produce Row, Labyrinth Forge Brewing, Olympia Provisions, Westward Whiskey, Shalom Ya'll, and multiple food cart pods.

Finally, the general purpose of the employment and industrial zone is to provide for a diversity of industrial and business areas, and to support developments that will bring economic viability to the district. Currently, this and other nearby lots are vacant and the proposed building's economic catalyst as an event venue will likely attract other improvements to the area, such as new supporting businesses and development. The City does not have any other venues of this size and level of investment, and the venue is expected to be a significant draw, bringing people to the district and benefitting the surrounding establishments that complement the venue.

C. Benefit. Public benefits of the proposed use outweigh any impacts that cannot be mitigated;
Response: As described above, the proposed on-site "impact" is the amount of trips the site generates, summarized in the TIS. Mitigations are summarized in the TIS and TDM plan and include public frontage improvements and TDM methods. There are no expected off-site impacts and there are no impacts that cannot be mitigated. This standard does not apply.

An event venue on this lot, which is currently vacant and surrounded by commercial and industrial buildings and other vacant lots, will have no other negative public impacts as it will operate largely outside of the hours of operation of the nearby businesses, with the exception of nearby hotels, bars, and restaurants which will likely benefit from the increased after-hours business activity. The proposed development is expected to produce public benefits in large part because its higher level of activity will likely reduce the presence of discarded waste, abandoned cars, crime, and illegal camping, all of which have recently been observed in the vicinity. Additionally, the development will be accompanied by public infrastructure improvements surrounding the block, which will improve the safety and security of the pedestrian environment for people who live and work in the district.

D. In the campus institutional zones…
Response: The site is not in a campus institutional zone. This standard does not apply.

IV. SELECT DEVELOPMENT STANDARDS COMPLIANCE

Staff noted that, while not applicable to the Conditional Use review, the project will need to meet Central City Plan District development standards including ground floor active use. The following section explains the project's compliance with these standards which will be reviewed at time of building permit.

33.510.225 Ground Floor Active Uses

A. Purpose. The ground floor active use standards are intended to reinforce the continuity of pedestrian-active ground-level building uses. The standards help maintain a healthy urban district through the interrelationship of ground-floor building occupancy and street level accessible public uses and activities, and they encourage a transit-supportive, pedestrian-oriented environment that is safe, active with uses, and comfortable for residents, visitors, and others. Active uses include but are not limited to: lobbies, retail, commercial, and office uses, but do not include storage, vehicle parking, garbage, recycling, mechanical, or utility uses.

B. Sites and development subject to the ground floor active use standard. The ground floor active use standards apply to new development and major remodels on sites with frontage on a street shown on Map 510-9.

Response: The site has frontage SE Water Avenue, a street shown on Map 510-9.

C. Ground floor active use standards.

1. Dwelling units are prohibited on the ground floor.

Response: As shown in the attached plans, no dwelling units are proposed on the ground floor. This standard is met.

2. Buildings must be designed and constructed to accommodate uses such as those listed in Subsection A. Areas designed to accommodate these uses must be developed at the time of construction. This standard must be met along at least 50 percent of the ground floor of walls that front onto a sidewalk, plaza, or other public open space.

Response: The proposal is for commercial use, which is an example of an active used described above in 33.510.225.A. As shown in the attached plan Z101a, the site has 506' 11" of wall length along sidewalks and 262'10" (52%) of this will be commercial use area not including excepted functions such as those described above in 33.510.225.A. Storage rooms, utility uses, and other excepted functions are not included in the calculation.

Areas designed to accommodate active uses must meet the following standards:

a. The distance from the finished floor to the bottom of the structure above must be at least 12 feet. The bottom of the structure above includes supporting beams;

Response: As shown in the attached elevations (Z201), the ground floor will be 18'8". This standard is met.

b. The area must be at least 25 feet deep, measured from the street-facing facade;

Response: As shown in the plans (see Z101), the building (the commercial use area) is at least 164'6" deep. This standard is met.

c. The area may be designed to accommodate a single tenant or multiple tenants. In either case, the area must meet the standards of the Accessibility Chapter of

the State of Oregon Structural Specialty Code. This code is administered by BDS; and

Response: The building/commercial use area is designed to accommodate one tenant. The project will meet accessibility requirements; this will be verified through permit review.

d. The street-facing facade must include windows and doors.

Response: As shown on the elevations, all three of the street-facing façades include windows and doors.

3. In the Pearl District and West End subdistricts, on the portion of a site within 100 feet of a streetcar alignment shown on Map 510-13, parking is not allowed in the portions of a building that meet the ground floor active use standard of Paragraph C.

Response: The site is not in the Pear District or West End subdistrict. This standard does not apply.

V. ADJUSTMENT COMPLIANCE

This application requests Adjustments with respect to three Code requirements:

- 33.266.200.B.1. (number of short-term bike parking spaces provided on the site).
- 33.266.310.C.2.c. (number of Standard A loading spaces located entirely on the site).
- 33.510.243.B.1. (ecoroof coverage).

The applicable sections are quoted and addressed below, followed by responses to the Adjustment approval criteria.

33.266 Parking and Loading

33.266.200 Minimum Required Bicycle Parking

A. Purpose. Bicycle parking is required for most use categories to encourage the use of bicycles by providing secure and convenient places to park bicycles. These regulations ensure adequate short and long-term bicycle parking based on the demand generated by different uses. Minimum bicycle parking facilities are based on the City's mode split goals, while acknowledging the usage rates for different uses. These regulations will help meet the City's goal that 25 percent of all trips be made by bicycle, while still acknowledging that to meet the citywide goal the bicycle mode split will vary by geographic area.

B. Number of spaces required.

1. The required minimum number of bicycle parking spaces for each use category is shown in Table 266-6. No bicycle parking is required for uses not listed. Minimum bicycle parking is calculated on a geographic hierarchy based on the current and future bicycle usage. Standard A in Table 266-6 applies to the areas shown as Standard A on Map 266-1. Standard B in Table 266-6 applies to all other areas of the city. (The following table is an excerpt from Table 266-6)…

Table 266-6
Minimum Required Bicycle Parking Spaces [1]

		Long-term Spaces		Short-term Spaces	
Uses	**Specific Uses**	**Standard A**	**Standard B**	**Standard A**	**Standard B**
Commercial Categories					
Major Event Entertainment		10, or 1 per 10,000 sq. ft. of net building area	10, or 1 per 20,000 sq. ft. or net building area	10, or 1 per 40 seats	10, or 1 per 40 seats

Response: The proposed venue is located in the Standard A area. The building will have 62,200 SF of net building area and 1,280 seats. Based on these numbers, 10 long-term bike parking spaces and 32 short-term spaces are required. As shown in the attached plans (see sheet Z101), 11 long-term spaces are proposed in the bike enclosure. This standard is met.

As described in the TIS (and TDM plan), the expected demand for short-term bike parking spaces at peak event times is 193 spaces (with 1.5% of these or 58 expected to be e-scooters, so 135 for standard bicycles); however, as shown in the attached plans, because the building is built to the lot lines in most locations, short-term bike parking meeting the standards of 33.266.210.E cannot be provided on the site.

Instead, the applicant proposes to provide as many short-term bike parking spaces as possible (100) in the on-street parking lane in front of the building in the SE Salmon Street right-of-way west of SE Water Avenue, north of and generally within 50' of the main entrances. The racks are expected to be permitted through the PBOT Temporary Street Use permitting process.

33.266.210 Bicycle Parking Development Standards

A. *Purpose. These standards ensure that required bicycle parking is designed so people of all ages and abilities can access the bicycle parking and securely lock their bicycle without undue inconvenience. Bicycle parking is in areas that are reasonably safeguarded from theft and accidental damage. The standards allow for a variety of bicycle types, including but not limited to standard bicycles, tricycles, hand cycles, tandems, electric motor assisted cycles and cargo bicycles. Long-term bicycle parking is in secure, weather protected facilities and is intended for building and site occupants, and others who need bicycle parking for several hours or longer. Short-term bicycle parking is located in publicly accessible, highly visible locations that serve the main entrance of a building. Short-term bicycle parking is visible to pedestrians and bicyclists on the street and is intended for building and site visitors.*

B. Where these standards apply. The standards of Subsection C and D apply to required long-term bicycle parking, and the standards of Subsection C and E apply to required short-term bicycle parking.

C. Standards for all bicycle parking. The Bureau of Transportation maintains a bicycle parking handbook that includes information on rack standards, siting guidelines and other standards of this code chapter. Long-term and short-term bicycle parking must be provided in lockers or racks that meet the following standards:

1. Bicycle parking area standards. The area devoted to bicycle parking must be hard surfaced.

2. Bicycle racks. Where bicycle parking is provided in racks, the racks must meet the following standards:

a. The rack must be designed so that the bicycle frame and one wheel can be locked to a rigid portion of the rack with a U-shaped shackle lock, when both wheels are left on the bicycle;

b. If the rack is a horizontal rack, it must support the bicycle at two points, including the frame; and

c. The rack must be securely anchored with tamper-resistant hardware.

Response: These standards will be met by the proposed long-term bicycle parking, as verified through building permit review, and are not relevant to this Adjustment request for the long-term bicycle parking. No short-term bicycle parking is proposed on the site and thus these standards cannot be applied to any short-term bicycle parking.

D. Standards for Long-Term Bicycle Parking...

Response: These standards will be met by the proposed long-term bicycle parking, as verified through building permit review, and are not relevant to this Adjustment request.

E. Standards for Short-term Bicycle Parking…

Response: The applicant is requesting an Adjustment to the short-term bike parking development standards in Section 33.266.200.B.1. No short-term bicycle parking is proposed on the site, and thus, these standards cannot be applied. Instead of on-site short-term bicycle parking, the developer will provide short-term bike parking facilities within the adjacent SE Salmon Street on-street parking area, subject to obtaining PBOT Temporary Street Use Permits or other required permits. The secure racks will be at the same grade as the sidewalk and within 50' of a main entrance, consistent with the standards applicable to short-term bike parking racks.

33.266.310 Loading Standards

A. Purpose. A minimum number of loading spaces are required to ensure adequate areas for loading for larger uses and developments. These regulations ensure that the appearance of loading areas will be consistent with that of parking areas. The regulations ensure that access to and from loading facilities will not have a negative effect on the traffic safety or other transportation functions of the abutting right-of-way.

B. Where these regulations apply. The regulations of this section apply to all required and non-required loading areas.

Response: The applicant is proposing an Adjustment for required loading areas.

C. Number of loading spaces.

1. Buildings where all of the floor area is in Household Living uses must meet the standards of this Paragraph…

Response: None of the floor area will be in Household Living uses. This standard does not apply.

2. Buildings where any of the floor area is in uses other than Household Living must meet the standards of this Paragraph.

a. Buildings with any amount of net building area in Household Living and with less than 20,000 square feet of floor area in uses other than Household Living are subject to the standards in C.1. above.

b. One loading space meeting Standard A is required for buildings with at least 20,000 and up to 50,000 square feet of net building area in uses other than Household Living.

c. Two loading spaces meeting Standard A are required for buildings with more than 50,000 square feet of net building area in uses other than Household Living.

Response: The proposed building has more than 50,000 SF of net building area in uses other than Household Living; therefore, two Standard A loading spaces are required. An Adjustment is being requested for the requirement of on-site loading areas. The applicant is proposing, instead, to obtain agreements with PBOT for an Angle Loading Permit on SE Main Street to address loading needs. The side streets abutting the proposed development dead-end at the west (at the I-5 corridor) and do not experience much vehicular use because they do not accommodate through traffic. Due to the site location and layout of streets, access, and traffic patterns, temporary closures will not have any negative effect on the traffic safety or other transportation functions of the abutting right-of-way.

D. Size of loading spaces. Required loading spaces must meet the standards of this subsection.

1. Standard A: the loading space must be at least 35 feet long, 10 feet wide, and have a clearance of 13 feet.

2. Standard B: The loading space must be at least 18 feet long, 9 feet wide, and have a clearance of 10 feet.

Response: The proposed Adjustment will involve an agreement with PBOT to use temporary road closures for loading needs. This standard does not apply to the spaces extending into the right-of-way or the portions of those spaces on the site as those are not required following this Adjustment approval;

however, as shown in the attached plans, the proposed the loading spaces will be 35' long and 10' wide in compliance with the size requirements, with 63% of the loading area located off the site.

E. Placement, setbacks and landscaping. Loading areas must comply with the setback and perimeter landscaping standards stated in Table 266-8 below. When parking areas are prohibited or not allowed between a building and a street, loading areas are also prohibited or not allowed.

Response: An Adjustment is being requested to reduce the requirement for on-site loading spaces from two to zero because, while the building will have two Standard A loading docks near the southwest building corner, the standing area for the docked trailers and semi-tractors will be located mostly within the SE Main Street right-of-way rather than on the property itself. The operation will require PBOT Angle Loading Permits. Under this Adjustment and PBOT permitting, the limited on-site areas used for loading would be categorized as general vehicle area and would not be subject to setback and perimeter landscaping standards for loading facilities.

F. Forward motion.

1. Outside the Central City plan district. Outside the Central City plan district, loading facilities generally must be designed so that vehicles enter and exit the site in a forward motion. Standard B loading spaces that are accessed from a Local Service Traffic Street are exempt from this requirement.

2. In the Central City plan district. In the Central City plan district, loading facilities that abut a light rail or streetcar alignment must be designed so that vehicles enter and exit the site in a forward motion.

Response: The site is in the Central City Plan District. The site does not abut a light rail or streetcar alignment. This standard does not apply.

G. Paving. In order to control dust and mud, all loading areas must be paved.

Response: If the Adjustment is approved, the alternative loading will still occur in a paved area. Paving of all required surfaces, within both the site and the public right-of-way, will comply with this standard.

33.510 Central City Plan District

33.510.243 Ecoroofs

A. Purpose. Ecoroofs provide multiple complementary benefits in urban areas, including stormwater management, reduction of air temperatures, mitigation of urban heat island impacts, air quality improvement, urban green spaces, and habitat for birds, plants and pollinators. The standards are intended to:

- *Maximize the coverage of ecoroofs;*
- *Allow for the placement of structures and other items that need to be located on roofs; and*
- *Support the architectural variability of rooftops in the Central City.*

B. Ecoroof standard. In the CX, EX, RX, and IG1 zones, new buildings with a net building area of 20,000 square feet or more must have an ecoroof that meets the following standards:

1. The ecoroofs, including required firebreaks between ecoroofs areas, must cover 100 percent of the building roof area, except that up to 40 percent of the building roof area can be covered with a combination of the following. Roof top parking does not count as roof area. Roof area that has a slope greater than 25% does not count as roof area:

a. *Mechanical equipment, housing for mechanical equipment, and required access to, or clearance from, mechanical equipment;*
b. *Areas used for fire evacuation routes;*
c. *Stairwell and elevator enclosures;*
d. *Skylights;*
e. *Solar panels;*
f. *Wind turbines;*
g. *Equipment, such as pipes and pre-filtering equipment, used for capturing or directing rainwater to a rainwater harvesting system; or*
h. *Uncovered common outdoor areas. Common outdoor areas must be accessible through a shared entrance.*

Response: As shown in the attached plans (see sheet Z105), the roof area (not including areas with slope greater than 25%) is 10,380 SF. Mechanical equipment areas occupy 2,600 SF (25%). As shown, 2,100 SF of the roof area (20%) is proposed for ecoroofs due to structural design requirements for ecoroofs that cannot be met for the proposed structure (this does not include plant material on the canopy over the main entrance). An Adjustment to standard B.1. is requested.

2. *The ecoroof must be approved by the Bureau of Environmental Services as meeting the Stormwater Management Manual's Ecoroof Facility Design Criteria.*

Response: As noted in the stormwater report in Attachment 4, the ecoroof will meet BES standards. This can be verified at time of building permit. This standard is met.

33.805 Adjustments

This application includes three Adjustment requests, as noted above. The section below responds to the Adjustment approval criteria for each Adjustment separately.

33.805.040 Approval Criteria

The approval criteria for signs are stated in Title 32. All other adjustment requests will be approved if the review body finds that the applicant has shown that either approval criteria A. through F. or approval criteria G. through I., below, have been met.

A. Granting the adjustment will equally or better meet the purpose of the regulation to be modified; [and]

Adjustment 1 Response: The Purpose of the bicycle parking standards is in Section 33.266.200.A:

> *Bicycle parking is required for most use categories to encourage the use of bicycles by providing secure and convenient places to park bicycles. These regulations ensure adequate short and long-term bicycle parking based on the demand generated by different uses. Minimum bicycle parking facilities are based on the City's mode split goals, while acknowledging the usage rates for different uses. These regulations will help meet the City's goal that 25 percent of all trips be made by bicycle, while still acknowledging that to meet the citywide goal the bicycle mode split will vary by geographic area.*

Based on the size and land use activity of the proposed building, the Code requires 32 short-term bicycle parking spaces. None of these can be provided on the site as the building is built to the lot lines in most locations and short-term bike parking meeting the standards of 33.266.210.E. cannot be provided. The

Applicant has the option to pay into the bike parking fund (per 33.266.210.E.b), but this would not immediately provide any of the short-term bike parking needed to accommodate events for which the proposed facility is designed.

As described in the TIS and TDM plan, the expected demand for short-term bike parking spaces at peak event times is 193 spaces (for a sold-out event, including employees). All of the Code-required short-term bike parking plus as many as possible of the anticipated needed short-term bike parking (100) will be provided in racks placed in the SE Salmon Street right-of-way north of and generally within 50' of the main entrances, anticipated to be allowed via PBOT Temporary Street Use Permits.

The TIS assumes 5% of all trips to the venue will be made by bicycle and the proposed bike parking will support this. The project anticipates demand for bicycle parking and will accommodate as much as possible in a strategic way despite the high building coverage design expected for and encouraged by the zone. By using the adjacent right-of-way, the project can provide more than would the Code minimum bicycle parking or racks along the sidewalk funded by the bicycle parking fund, thereby encouraging the use of bicycles and better supporting the demand associated with events at the facility. This criterion is met.

Adjustment 2 Response: The purpose of the loading space standard is in 33.266.310.A. The response below addresses each component of the purpose statement.

> *A minimum number of loading spaces are required to ensure adequate areas for loading for larger uses and developments…*
> **Response:** The minimum number of loading spaces is two, required to be provided on the site; however, due to the high building coverage design expected for and encouraged by the zone, these cannot be provided entirely on-site. Two Standard A spaces will be provided, meeting the purpose of the standard, in an alternative location partially within the SE Main Street public right-of-way.
>
> *These regulations ensure that the appearance of loading areas will be consistent with that of parking areas…*
> **Response:** Surface parking is prohibited in the Central City Plan District, though street parking exists throughout the District. It would not be as appropriate and consistent with the neighborhood to provide loading areas with standard landscape setbacks in this urban location within the Central Eastside Freight District. The proposed loading spaces will look more like the allowed street parking as they will be part of the public street.
>
> *The regulations ensure that access to and from loading facilities will not have a negative effect on the traffic safety or other transportation functions of the abutting right-of-way…*
> **Response:** As described in the TIS, all three streets near the proposed venue have Freight District or Priority Truck District Street designations since the area is located within the Central Eastside Freight District. These designations require the streets to be designed to fully accommodate truck movements without impeding their mobility. The proposed loading docks will require an Angle Loading Permit from PBOT when in use to support events. Such street closure will not impede traffic safety or transportation functions because the affected street section on SE Main Street dead ends into the Eastbank Esplanade area and experiences minimal traffic circulation. Additionally, SE Main Street is not designated a Major City Bikeway, so cyclists will not be affected by operations at the dock doors.

Safety support for truck maneuvering will be achieved through the likely requirement of a flagger to assist with the maneuver.

The applicant has had conversations with PBOT representatives who have indicated their support for Angle Loading Permits as a solution to our loading strategy. PBOT indicated a willingness to provide us with long-term certainty on our ability to use the SE Main Street right-of-way for this loading use.

This criterion is met.

Adjustment 3 Response: The purpose of the ecoroof standard is in 33.510.243.A. The response below addresses each component of the purpose statement.

> *Ecoroofs provide multiple complementary benefits in urban areas, including stormwater management,…*
> **Response:** The proposal will include stormwater management methods in compliance with BES standards, as described in the attached stormwater report.
>
> *reduction of air temperatures, mitigation of urban heat island impacts,…*
> **Response:** As shown in the attached roof plan, in areas where there is no ecoroof installed, the building will have a white TPO roof designed to reflect solar radiation, reduce ambient air temperatures, and mitigate the urban heat island effect.
>
> *air quality improvement, urban green spaces, and habitat for birds, plants and pollinators…*
> **Response:** In addition to 2,100 SF of ecoroof, the project proposes planters installed on the canopies along all three street-facing sides of the building, allowing for additional planting area for plants and trees which will improve air quality. Non-structural stainless-steel cables will extend from the planters to the building parapet to allow plants to grow vertically. The ecoscreen of plants along the building's upper façades will also reduce the overall heat gain of the building while also increasing air quality and providing habitats for birds, plants, and pollinators. These planters will also add significantly to the urban greenspace appearance of the building and site (currently impervious gravel) and create additional habitat.
>
> *The standards are intended to:*
> - *Maximize the coverage of ecoroofs;*
> - *Allow for the placement of structures and other items that need to be located on roofs; and*
> - *Support the architectural variability of rooftops in the Central City.*
>
> **Response:** The project includes as much ecoroof as possible given the design and structural support needs of ecoroofs. Adequate mechanical equipment area is allowed. The angled roof shape and variety within the form of the proposed building will be a unique feature in the district that will add significantly to the overall architectural variability of rooftops in the Central City, most of which are flat or relatively flat.

The landscape plans (see L202 and L205) propose the utilization of a geocell grid within the ecoroof assembly to mitigate potential soil erosion issues, which could adversely affect the long-term health of the plants. The proposed ecoroof plant species have been selected for their ability to provide habitat and ecological benefits. These species consist of a mix of herbaceous and native plants that support pollinators, butterflies, birds, and other wildlife. The proposed plant sizes will be denser than typical for the allowable media depth, ensuring a substantial impact upon installation.

B. If in a residential, CI1, or IR zone, the proposal will not significantly detract from the livability or appearance of the residential area, or if in an OS, C, E, I, or CI2 zone, the proposal will be consistent with the classifications of the adjacent streets and the desired character of the area; [and]

Response: This response addresses the proposal as a whole, including the three Adjustments.

The site is in an I zone. The classifications of the adjacent streets are addressed in the Public Services section above (33.815.215.A); as described there, the project will be consistent.

As also discussed above (33.815.215.B), the local area has many other event and entertainment venues and businesses, and the building appearance and height will blend in with the surrounding buildings. This is consistent with the desired character of the IG1 zone at and adjacent to the subject property:

> ***Desired Character.*** *The preferred and envisioned character (usually of an area) based on the purpose statement or character statement of the base zone, overlay zone, or plan district. It also includes the preferred and envisioned character based on any adopted area plans or design guidelines for an area.*

As noted in the responses to 33.815.215.B. above, the intent of the General Industrial Zones is to "promote viable and attractive industrial areas" and the General Industrial 1 (IG1) zone is described in the code as generally having "smaller lots and a grid block pattern. The area is mostly developed, with sites having high building coverages and buildings which are usually close to the street." See the response to 33.815.215.B. for an explanation of how the proposal is consistent with the purpose of the base zone.

There is no overlay district, but the site is in the Central City plan district, which implements the Central City 2035 Plan, a plan that identifies many components of the unique character of the Central City. Per 33.510.010:

> *The Central City plan district implements the Central City 2035 Plan. The regulations address the unique role the Central City plays as the region's premier center for jobs, health and human services, tourism, entertainment and urban living. The regulations encourage a high-density urban area with a broad mix of commercial, residential, industrial and institutional uses, and foster transit-supportive development, pedestrian and bicycle-friendly streets, a vibrant public realm and a healthy urban river.*

The Central City is the area of the City most appropriate for a large entertainment venue such as the proposed development. The proposal will connect users to transit, improve pedestrian facilities, provide bicycle facilities, and create a more vibrant public realm. The proposed development is consistent with the desired character of the Central City district as it provides an entertainment venue, supports a mix of uses in the area, and will encourage multimodal transportation through several methods identified in the TDM plan (attached to the TIS).

Additional descriptions of how the proposal meets the desired character of the area can be found in Section VI of this narrative. In Section VI, the relevant policies from the Buckman Neighborhood Plan and the Central City 2035 Plan are discussed.

As component features of the overall project, Adjustment 1 will allow short-term bike parking to be provided by alternative means, Adjustment 2 will allow the proposed dock door configuration, and Adjustment 3 will allow the project to satisfy stormwater management requirements by combining a partial eco-roofing of the building (to the extent feasible based on its compound-slope design) with other on-site treatment facilities.

None of the requested adjustments will cause the proposed development to be inconsistent with the classifications of the adjacent streets and the desired character of the area. This standard is met.

C. If more than one adjustment is being requested, the cumulative effect of the adjustments results in a project which is still consistent with the overall purpose of the zone; and

Response: The three adjustment requests pertain to distinct and mostly unrelated code compliance issues concerning the proposed plan for a new event venue. This venue is allowed conditionally and meets all the criteria for conditional use approval, including alignment with the zone's intent, as previously discussed in the responses to 33.815.215.B. and 33.805.040.B.

Adjustment 1 will allow far more bicycle parking than required by Code, within right-of-way during events instead of on the site. Adjustment 2 will allow the required number of loading spaces in a more urban setting, which is quite typical within the Central Eastside industrial area. Adjustment 3 will allow for less ecoroof coverage than required, but the proposal includes several unique and innovative green design features, including partial eco-roofing combined with stormwater facilities to meet the purpose of the standard. The combined effect of the proposed Adjustments will be to allow a better site-specific design for the conditionally allowed use, which will benefit the district and zone in this area.

This criterion is met.

D. City-designated scenic resources and historic resources in Historic, Conservation and National Register Districts and within the boundaries of Historic, Conservation and National Register Landmarks are preserved; and

Response: The site does not contain any City-designated scenic or historic resources. The requested Adjustments will not have any adverse impact on any City-designated resources.

E. Any impacts resulting from the adjustment are mitigated to the extent practical; and

Adjustment 1 Response: No impacts are anticipated as a result of the requested Adjustment to allow the facility to address short-term bike parking needs by providing bike parking within the SE Salmon Street right-of-way. Adjustment 1 will allow the repurposing of the on-street parking area of SE Salmon Street adjacent to the building (with permitting from PBOT) for bike parking, making it directly accessible to the venue doors and by bike along a designated bike route. The travel lane will not be affected. This will provide a safe area for bicyclists as well as other visitors. Because only the parking lane will be affected and availability of off-street vehicle parking is not a concern for the venue (as described in the TIS), there will be no significant impact on traffic operations that requires mitigation; therefore, this standard does not apply to Adjustment 1. As discussed in the TIS, however, a curb extension may be proposed on Salmon Street adjacent to the bike parking to buffer the bike parking area and add to the pedestrian environment.

Adjustment 2 Response: The proposed alternative to loading requirements will not impact traffic operations because the street dead-ends at the west end of SE Main Street, so no through traffic is allowed. Additionally, within the Central Eastside Industrial District, streets were designed to accommodate truck traffic and loading within the right-of-way and continue to operate on that basis today. Finally, since event-based PBOT Angle Loading Permits will be used for loading on the dead-end segment of SE Main Street, traffic on these roads will not be impacted. Other potential changes are discussed in the TIS and could include: a semi-permanent swinging gate that can be closed to block the sidewalk and landscape area when trucks are parked at the loading docks; a curb extension on Main Street (and subsequent removal of the existing curb extension on Water Avenue for the future two-way cycle track); and reconfiguration of the travelway to the west of the loading dock for the proposed venue to include angled parking on the north side of SE Main Street. Proposed Adjustment 2 meets this criterion.

Adjustment 3 Response: No impacts are anticipated as a result of the requested Adjustment to meet stormwater requirements using less ecoroof area than the standard requires. The proposal includes several unique design qualities, including an elevated stormwater planter, to meet the purpose of the standard being modified. This standard does not apply to Adjustment 3.

F. If in an environmental zone, the proposal has as few significant detrimental environmental impacts on the resource and resource values as is practicable;[or]

Response: The proposed project is not located within an environmental zone. This standard does not apply.

G. Application of the regulation in question would preclude all reasonable economic use of the site; and

H. Granting the adjustment is the minimum necessary to allow the use of the site; and

I. Any impacts resulting from the adjustment are mitigated to the extent practical.

Response: The applicant requests approval based on compliance with criteria A through F. Findings are therefore not required to address criteria G through I.

VI. AREA PLANS COMPLIANCE

Buckman Neighborhood Plan

Policy 1: Maintain and improve the quality and urban character of Buckman's physical environment and attract compatible development.

Objective 1.1 Maintain and improve the historic character of Buckman.

A. Modify the 19th century street grid to reduce through traffic and provide opportunities for recreation and parking improvements. (PDOT)

Response: The proposed event venue will be consistent with and improve the character of the industrial area surrounding SE Water Avenue. No changes are proposed to the block layout, but the proposed attractive building design and pedestrian improvements will create a more appealing and walkable block where there is currently an empty lot which is often occupied with illegal camping and trash. The newly improved sidewalk and proposed street tree additions will also create extra visual friction along the roadside which is known to be traffic calming. The project includes temporary street closures and parking measures for bicycles to improve existing infrastructure and promote foot traffic for the proposed venue. The proposal aligns with this guideline.

Objective 1.2 Advocate physical changes that strengthen neighborhood identity and livability.

A. Work to develop a target area improvement plan (TAIP) for areas in need of direct revitalization. (REACH)

B. Develop a neighborhood marketing plan and work with realtors to implement it. (BCA)

C. Create special street signs for the neighborhood. (BCA)

D. Remove billboards along neighborhood collector streets. (Legislature)

E. Encourage shared use of yards. (BCA)

F. Support placing utility wires and facilities underground. (BCA, City)

G. Create a community land trust to preserve land for uses like affordable housing and open space. (REACH)

H. Clearly indicate entry into the Buckman neighborhood by signs and landmarks. (BCA)

I. Expand the use of vacant land for vegetable gardening (community or private vegetable gardens). (Parks, private, HCD, PDC)

Response: The proposed venue has a thoughtfully designed exterior that will not only be in line with the character of the area but also an aesthetic improvement to the surrounding blocks. The addition of the living walls, ecoroof, storm planter, and street trees will bring added green to an industrial area. The venue use will also bring added foot traffic and patronage to the surrounding businesses. The proposal aligns with this guideline.

Objective 1.3 Develop and enhance Buckman's pedestrian environment.

A. Widen sidewalks and install street furniture, informational kiosks, and neighborhood identification signs at appropriate locations in Buckman. (PDOT, HCD)

B. Plant street trees, including appropriate fruit and nut trees, in residential and commercial areas. (BCA, FOT)

Response: The proposed project includes dedications and improvements for an enriching pedestrian landscape through the planting of 11 street trees and the inclusion of a stormwater planter overlooking the sidewalk on SE Main Street. Ecoroofs will be provided on the east and west sides of the building, and another planter will be provided at the main entrance corners adding live plant material and softness to the pedestrian environment. The proposal aligns with this guideline.

Objective 1.4 Encourage restoring existing properties rather than razing and replacing them.

Response: The proposed venue will be built on a vacant lot. No structures will be razed or replaced. This guideline does not apply to this site.

Objective 1.5 Encourage new development and renovation of existing structures to meet Buckman commercial and residential architectural guidelines. (see Appendix)

Response: The proposed venue is designed to blend in with the surrounding built environment by incorporating windows, painted masonry and concrete, and suspended canopies into the building exterior. These elements are found throughout existing buildings within the Buckman Neighborhood as shown in Attachment 5 Context Images. The proposal aligns with this guideline.

Objective 1.6 Support planning and design of new developments that enhance neighborhood livability.

A. Work with developers early in the development process to comment on their plans and discuss environmental impacts of proposed development on the neighborhood, e.g. noise, air, lead, and particulate pollution, hazardous waste, vibration and odor. (BCA)

B. Work with realtors and developers to attract development compatible with the neighborhood. (BCA)

C. Preserve public views to downtown and the west hills. (BOP)

Response: The proposed venue has a thoughtfully designed exterior that will not only be in line with the character of the area but also an aesthetic improvement to the surrounding blocks. The addition of the living walls, ecoroof, storm planters, and street trees will bring added green to an industrial area. The venue use will also bring added foot traffic and patronage to the surrounding businesses.

Objective 1.7 Promote the development of a clear identity for commercial nodes on Burnside, Belmont/Morrison, Hawthorne and the Central Eastside.

A. Work with businesses to encourage the use of signs that reinforce neighborhood identification. (BCA)

Response: No signs are proposed for the project at this time. This guideline is not applicable to the proposal.

Objective 1.8 Promote the use of renewable resources.

A. Encourage property owners to preserve solar access on their own and neighboring properties. (BOP)

Response: The proposed venue is adjacent to and across the street from other vacant lots. At only four stories in height, the proposed building is within the height limit for the zone and will not have significant impact on future developments' access to solar energy. The proposal aligns with this guideline.

Objective 1.9 Promote the reduction of air pollution, noise, energy use, litter, solid waste, and use of hazardous materials in Buckman.

A. Provide education and incentives for residents to recycle solid and organic waste materials. (Metro)

Response: Sustainability guided both the interior and exterior design of the proposed venue with the inclusion of the ecoroof, stormwater well, and choice of construction materials. The proposed building will have a roofing membrane that is compliant with cool roof requirements to conserve energy. Throughout the venue, responsible waste disposal receptacles will be readily available for patrons. The proposal aligns with this guideline.

Objective 1.10 Ensure that zoning, building, noise and nuisance regulations are enforced.

A. Bring existing parking lots up to city standards for surfacing, striping, and landscaping. (BOP, BOB, Private)

B. Improve control of animals. (Mult. Co.)

Response: The proposed project meets all the relevant zoning, building, noise, and nuisance requirements. The proposal aligns with this guideline.

A. The proposed venue will be built on a vacant lot and does not include a parking lot. This guideline is not applicable to the proposal.
B. The proposed venue is not related to animals. This guideline is not applicable to the proposal.

Objective 1.11 Use the design review process in the CEID to encourage development that is compatible with the surrounding area and encourage voluntary design review in the rest of the neighborhood.

Response: The site is not in a design overlay. This guideline is not applicable to the proposal; however, the thoughtful design of the proposed building will not only fit in with the character of the area but will be an improvement to the immediate surroundings.

Objective 1.12 Continue to work toward the expansion of design review in Buckman.

Response: The site location is in the Central Eastside Industrial District of the Buckman neighborhood in an area that is currently underdeveloped and adjacent to I-5 and Design Review is not a requirement. This guideline is not applicable to the proposal; however, the thoughtful design of the proposed building will not only fit in with the character of the area but will be an improvement to the immediate surroundings.

Objective 1.13 Enourage business owners to provide privately owned open spaces that can be enjoyed by the neighborhood.

Response: The proposed widened pedestrian area along SE Water Avenue will provide an amenity space for patrons of the venue as well as the public. The proposal aligns with this guideline.

Objective 1.14 Encourage business owners to provide public art and associated amenities such as: benches, flower boxes and drinking fountains.

Response: The proposed building and natural amenities such as the green walls at the main entrance corners will feel elegant and artistic, and bring a sense of style and charm to the area. The proposal aligns with this guideline.

Policy 4: Keep Buckman Safe and neighborly through active involvement in crime prevention and by building a sense of community.

Objective 4.1 Ensure that life, property, and human rights are protected.

Response: The proposed venue will not create any infringements on life, property, or human rights. Opposingly, the active nature of the development particularly at night will likely make the neighborhood safer for all who are there. The proposal aligns with this guideline.

Objective 4.2 Encourage the police to increase their visibility and accessibility.

A. Support Portland's Community Policing program. (BCA, CEIC, Citizens)

Response: The presence of a development such as the proposed event venue will be naturally accompanied by both an increased police presence and higher foot traffic and visibility during the hours of nighttime operation that don't currently exist in the immediate surrounding area. Currently, the area is a magnet for crime as several of the surrounding lots are vacant and the immediate area is mostly occupied by daytime or early evening activity. The proposal aligns with this guideline.

Objective 4.3 Promote crime-prevention programs that help residents, business people and property owners share responsibility for neighborhood safety and security.

A. Better coordinate crime prevention and community building activities. (BCA, SEUL)

B. Sponsor crime prevention workshops, programs, and activities which include discussion of the causes and remedies for criminal activity, including preventative measures. (BCA, SEUL, Community Police)

C. Increase the number of neighborhood watch blocks. (BCA)

D. Encourage landlords to participate in education programs stressing crime prevention and community building. (Police, BCA)

Response: Venue security, along with increased foot traffic during event times, will create a more safe and secure feeling area. The proposal aligns with this guideline.

Objective 4.4 Increase the neighborhood use of and enhance safety at Buckman parks and open spaces.

A. Ensure park security by enforcing the prohibitions on alcohol and hours of operation, trimming landscaping, and enforcing city curfews. (Parks, Police, CPTED)

B. Install an emergency phone in Colonel Summers Park. (Parks)

C. Work with the St. Francis Park Board to increase visibility and safety in St. Francis Park. (St. Francis)

D. Support consistent, year-round hours of operation for Lone Fir Cemetery. (Mult. Co.)

Response: Events at the proposed venue will attract many visitors to the neighborhood and could increase the use of Buckman parks; however, this objective seems geared toward specific parks with specific goals that will not apply to the proposed development.

That said, alcohol consumption will be limited to inside the proposed venue. Patrons will be monitored both entering and exiting the proposed venue to ensure compliance. Park security will not be affected. This guideline is not applicable to the proposal.

Objective 4.5 Address the neighborhood problems of drug houses, racism, and gang activity such as graffiti.

E. Use the neighborhood mediation program to resolve problems. (Mediation)

Response: As mentioned, the proposed development will reduce crime and increase security in the area, which will only assist in accomplishing Objective 4.5. The proposal aligns with this guideline.

Objective 4.6 Encourage development of appropriate landscaping and apply the principles of crime prevention through environmental design to create safer streets, yards, and open spaces.

Response: The proposed venue includes many welcoming elements like widened sidewalks, stormwater planter, trees, and lighting that will make the area feel safer. The proposal aligns with this guideline.

Objective 4.7 Promote ongoing activities and special events that develop a greater sense of community.

A. Organize community self-help projects and celebrations such as: clean-ups, paint-a-thons, block parties and garage sales. (BCA)

B. Recognize the accomplishments of individuals and organizations that help to improve the Buckman neighborhood. (BCA)

C. Involve renters in neighborhood activities. (BCA)

D. Seek funding to help implement strategies outlined in the neighborhood plan. (BCA, SEUL)

E. Create T-shirts, pins, hats, and various other items with the Buckman Commmunity Association logo for sale to improve neighborhood identity. (BCA)

Response: The tenant for the venue encourages its employees to support local charities, non-profits, and community organizations. This could bring much needed capacity to jumpstart these initiatives. This proposal aligns with this guideline.

Objective 4.8 Encourage the development and maintenance of a Buckman communications network to promote a positive neighborhood environment.

A. Expand newsletters and other means of communication to share current information, activities, and opinions, including a calendar of neighborhood events. (BCA, Newsletter)

B. Create opportunities for Buckman neighbors to share skills and interests. (BCA)

C. Identify individuals who have skills and knowledge that can benefit the neighborhood. (BCA)

Response: The capacity of the proposed venue is 3,500, creating the opportunity for flyers and announcements posted in the area to reach a broad audience. The proposed venue may serve as an attractive gathering place for community events. The proposal aligns with this guideline.

Objective 4.9 Encourage schools, churches, and business groups to sponsor or assist in organizing activities that serve Buckman neighbors.

Response: A proposed event venue on this site will increase activity options for Buckman neighbors as well as event space options. The proposal aligns with this guideline.

Policy 5: Maintain mobility through alternative forms of transportation and reduce the impact of auto and truck use in Buckman.

Objective 5.1 Control neighborhood traffic and parking to ensure safety and livability for neighborhood residents.

A. Consider a street design plan for Buckman's local streets. (BCA)

B. Request a neighborhood traffic management plan for streets where specific problems are identified. (BCA, NTMP)

C. Establish a traffic subcommittee of the Buckman Community Association to identify and respond to traffic problems. (BCA)

D. Identify intersections where traffic visibility is impaired and report them to the district traffic engineer. (BCA, Citizens)

E. Place "no parking" signs near intersections to improve visibility. (PDOT)

F. In residential areas, oppose new surface parking lots where housing would be removed or open space would be reduced. As an alternative to new parking lots, encourage alternative methods such as carpooling or transit. (BCA)

G. Investigate the implementation of diagonal parking where the parking is needed and the right-of-way is of sufficient width. (PDOT)

H. Improve the Burnside/12th/Sandy intersection. (PDOT)

I. Only support reductions to required parking where on-street parking is underutilized or when the property owner agrees to rent only to tenants without autos. (BCA)

Response: The proposed venue will not be built in a residential zone. Neighborhood residents should be minimally impacted by parking and traffic especially as the venue event times will often be after hours in the business and industrial area. The proposal aligns with this guideline.

Objective 5.2 Encourage alternatives to automobile use.

A. Encourage new residential development that is targeted to populations without autos. (BOP)

B. Encourage employers to provide incentives for the use of alternative transportation modes. (Private)

C. Advertise the benefits of transit ridership. (Tri-Met, BCA, Neigh. media)

D. Require local businesses and large institutions to use travel demand management to alleviate parking problems. (Private)

Response: The proposed venue does not include a parking lot and will instead encourage the use of walking, biking, transit, and rideshare services, as described in the TDM plan attached to the TIS in Attachment 3.

Objective 5.3 Support improved public transit service to: 1) better serve Buckman residents, 2) ensure that citizens with special needs are served and 3) accommodate future increased commuter trips between downtown and East Multnomah County, without adding auto and truck traffic in the Buckman neighborhood.

A. Establish transit shortline routes between Buckman and downtown to ensure that there is space on buses for Buckman residents. (Tri-Met)

B. Provide amenities (shelters, schedules, rider information, trash receptacles, etc) at more bus stops. (Tri-Met)

C. Pursue re-establishment of bus service on SE Stark Street. (Tri-Met)

D. Support efforts to re-establish electric trolley service. (Tri-Met)

Response: The site is located in the Central Eastside Industrial District portion of Buckman and is not expected to increase auto and truck traffic in neighborhood areas. There is, however, nearby transit service available for patrons of the venue and modes of transportation other than drive alone trips will be encouraged, as described in the TDM plan attached to the TIS in Attachment 3. The proposal aligns with this guideline.

Objective 5.4 Support improvements for pedestrian and bicycle use and safety.

A. For the bike routes on SE Ankeny and Salmon, install traffic diverters that decrease auto traffic on through streets without restricting bike access. (PDOT)

B. Request additional curb ramps. (PDOT)

C. Improve routes to the Willamette River. (PDOT)

D. Paint stop bars (white lines) across streets where there are stop signs. (PDOT)

Response: The proposal includes a widened sidewalk along SE Water Avenue and other sidewalk improvements such as street trees. Ther is also already existing bike lanes along SE Water Avenue and a bikeway leading to the Eastbank Esplanade. The proposal aligns with this guideline.

Objective 5.5 Support reduction of auto traffic speeds and volumes on neighborhood collectors and local traffic streets.

A. Use the Speed Watch program to control traffic speeds. ((PDOT, Citizens)

Response: The wide sidewalk and proposed street tree additions will create extra visual friction along the roadside which is known to be traffic calming. The proposal aligns with this guideline.

Objective 5.6 Reclaim neighborhood streets through methods such as traffic control devices, pedestrian-activated signals, traffic circles, street signs, and through education and enforcement.

Response: The site is not located within the neighborhood sections of Buckman. This objective doesn't apply but there are existing signals and street signs in the area and along SE Water Avenue.

Objective 5.7 Consider traffic operation changes on SE Belmont to ensure that it functions as a pedestrian-friendly, neighborhood-shopping street.

A. Consider changing the Morrison/Belmont couplet to two-way streets as far west as possible to reduce traffic volume and speed and enhance the neighborhood character. (PDOT)

Response: The proposed project does not include any traffic operation changes on SE Belmont. This guideline is not applicable to the proposal.

Objective 5.8 Discourage nonresident commuters from driving through or parking on Buckman streets.

A. Enforce overnight truck parking regulations. (PDOT, Police)

Response: The site is not located within the neighborhood sections of Buckman.

Objective 5.9 Encourage shared uses of commercial and institutional off-street parking.

Response: The proposed project involves utilizing existing commercial and institutional off-street parking at non-peak times. Additionally, the proposal aims to discourage vehicular traffic through temporary street closures. See the TIS. The proposal aligns with this guideline.

Objective 5.10 Discourage trucks from blocking the streets when loading and unloading, except in the designated truck zone.

Response: The proposal includes an Adjustment for on-site loading and meets the approval criteria for adjustment. A separate approval will be obtained through PBOT for a designated truck zone on and adjacent to the site. The proposal aligns with this guideline.

Policy 6: Promote and improve educational, recreational, and cultural resources and activities in the Buckman neighborhood.

Objective 6.1 Strengthen interaction between the schools and the community.

A. Improve citizen interaction with Portland Public School District Number One. (School District, Citizens)

B. Promote better interagency coordination, e.g., between city Parks Bureau and the public school system in order to enhance neighborhood use of existing facilities. (School District, Parks)

Response: The proposed venue is not related to Portland Public Schools. This guideline is not applicable to the proposal.

Objective 6.2 Advocate strengthening school programs that enhance personal development, neighborhood identity and livability.

A. Identify programs that aid parents in fostering the academic performance of their children. (School District, Impact, OMSI, PTA)

B. Attract an educational program to the vacant St. Francis School. (BCA)

Response: The proposed venue is not related to Portland Public Schools. This guideline is not applicable to the proposal.

Objective 6.3 Support the continued availability of Buckman Elementary School for primary education, as an arts magnet school, and for before- and after-school care.

Response: The proposed venue is not related to Portland Public Schools. This guideline is not applicable to the proposal.

Objective 6.4 Foster life-long educational opportunities for residents.

A. Make Buckman school a Community School. (School District, Parks)

B. Use school buildings for evening classes and recreational activities for all ages. (School District)

C. Encourage community college use of Buckman school facilities. (BCA)

Response: The proposed venue is not related to Portland Public Schools. This guideline is not applicable to the proposal.

Objective 6.5 Promote strategies to maximize neighborhood use of school facilities and programs.

A. Encourage Buckman school, Child Services Center, and Central Catholic High School to open their facilities for year-round, neighborhood use. (BCA)

B. Promote the Buckman Indoor Park at the Child Services Center. (BCA, neighborhood media, School District)

C. Use Central Catholic High School for community activities. (Central Catholic)

Response: The proposed venue is not related to Portland Public Schools. This guideline is not applicable to the proposal.

Objective 6.6 Promote establishing community centers to serve all age groups.

Response: While the proposed project is not a community center, the proposed venue will host a variety of events that will attract people of all ages. The proposal aligns with this guideline.

Objective 6.7 Encourage youth programs that build character and promote social responsibility.

A. Identify programs that provide positive academic, social, fitness, and recreational opportunities for youth. (Parks, School District, PTA)

Response: Though there is no youth program proposed at this time, the venue will increase the cultural and recreational options available in the area. The proposal aligns with this guideline.

Objective 6.8 Support the use of school buildings for community recreational and cultural activities.

Response: The proposed venue is not related to Portland Public Schools. This guideline is not applicable to the proposal.

Objective 6.9 Advocate increasing the amount of park land and recreational facilities in the neighborhood.

A. Build a regulation-sized, year-round, heated swimming pool in a location convenient to Buckman residents. (Parks)

B. Create a detailed open space and recreation plan. (BCA)

C. Create recreational areas and public open space including sports facilities, playgrounds, and community gardens within walking distance of homes. (Parks)

D. Create open play areas and garden space by closing streets to through traffic. (Parks, PDOT, HCD)

E. Investigate the feasibility of utilizing vacant public and private land for recreational activities. (BCA)

F. Build additional basketball courts at the Child Services Center. (School District)

G. Construct a pocket park across from Central Catholic High School at SE 24th, SE Oak and SE Stark Streets. (Parks, Private Sector, Central Catholic)

Response: The proposed project is not related to park land or recreational facilities in neighborhoods. This guideline is not applicable to the proposal.

Objective 6.10 Support improving facilities and programs at existing recreational sites and developing new recreational opportunities.

A. Upgrade Buckman pool, improve community access, and extend hours of use. (School District)

B. Offer year-round, supervised activities for children and adults in parks and community centers. (Parks)

C. Conduct day and evening, family-oriented activities at St. Francis and Colonel Summers Parks. (BCA, Parks, St. Francis)

D. Improve community gardens by providing more garden space, more assistance from Portland Parks Bureau staff, and by making physical improvements. (Parks, Community Gardens)

E. Improve lighting at sports fields, where the impact on residential areas can be minimized. (Parks)

F. Provide access for physically and mentally challenged people to all community facilities. (City, Private Sector)

Response: The proposed project does not involve any existing facilities but will provide an additional recreational option in the area. This guideline is not applicable to the proposal.

Objective 6.11 Promote Colonel Summers Park for appropriate recreational use by Buckman's diverse population.

A. Establish a community center, a caretaker house, a cafe and/or a concession stand in Colonel Summers Park. (Parks)

B. Improve and modify playground equipment at Colonel Summers Park to encourage and emphasize its use by small children. (Parks)

C. Post signs concerning operating hours and rules at Colonel Summers Park. (Parks)

D. Manage activities at Colonel Summers Park to reduce noise levels. (Parks)

E. Remove or modify the basketball court, e.g., lower hoops and half courts, at Colonel Summers Park to reduce or eliminate conflicts with nearby residents and other users of the park. (Parks)

Response: The proposed project is not related to Colonel Summers Park. This guideline is not applicable to the proposal.

Objective 6.12 Promote St. Francis Park for recreational use by Buckman residents.

A. Encourage families with children to use St. Francis Park. (BCA)

Response: The proposed project is not related to St. Francis Park. This guideline is not applicable to the proposal.

Objective 6.13 Encourage the development of Lone Fir Cemetery as a cultural, educational and recreational resource.

A. Improve maintenance, landscaping, passive recreational and educational activities, and security for Lone Fir Cemetery. (Mult. Co.)

Response: The proposed project is not related to the development of Lone Fir Cemetery. This guideline is not applicable to the proposal.

Objective 6.14 Improve access to the Eastbank Esplanade and develop it for recreational uses.

A. Provide easy access to the East Bank of the Willamette River from the Burnside to the Hawthorne Bridges. (PDOT)

B. Build walking, jogging, and bicycle pathways along the Willamette River. (PDOT)

C. Develop riverside facilities, e.g., cafes, picnic areas, boat rental, fishing dock, etc. (PDOT, Parks, Private Sector)

D. Build fenced, lighted, and metered basketball courts beneath freeways and overpasses adjacent to the East Bank Esplanade. (PDOT)

Response: The proposed venue will not change the existing access to the Eastbank Esplanade; however, the increased foot and bicycle traffic as a result of the project may jumpstart interest for further attention to these initiatives. The proposal aligns with this guideline.

Objective 6.15 Ensure that library services are accessible.

A. Investigate locating a computer terminal/library catalog facility in a central location. (Library)

B. Request regular visits by the bookmobile. (Library)

Response: The proposed project will not affect library service accessibility. This guideline is not applicable to the proposal.

Objective 6.16 Encourage visual, literary, and performing arts to thrive in Buckman.

A. Publicize events and activities that focus on artistic endeavors in the Buckman newsletter. (BCA, MAC)

B. Establish a music and/or arts festival in the Buckman neighborhood. (BCA, Private Sector)

Response: The proposed venue will host an assortment of concerts and events that may encompass visual, literary, and performing arts. The proposal aligns with this guideline.

Policy 7: Encourage and support businesses that enhance the neighborhood and provide needed good and services to local residents.

Objective 7.1 Promote appropriate development of Buckman's commercial areas.

A. Study and promote business redevelopment along Morrison and Belmont Streets east of 12th. (BBA)

B. Work with business groups to help marke opportunities for appropriate development (BCA, PDC)

C. Develop a "Main Street" program to improve the Belmont business area. (BBA)

D. Improve the business area along E Burnside Street, especially at SE 28th Avenue. (PDC, CEIC)

E. Consider the location of supportive commercial/retail operations adjacent to existing recreational facilities and sites. (Private, BBA)

Response: The site for the proposed venue is not along the streets specified above, but the addition of this venue will provide for new commercial opportunities in the Central Eastside Industrial District portion of the Buckman area. Additionally, the developer has been in communication with the Central Eastside Industrial Council's Land Use and Urban Development Committee to ensure this is a compatible project for the area. The proposal aligns with this guideline.

Objective 7.2 Encourage pedestrian-oriented commercial development.

Response: The proposed event venue fully encompasses this guideline as the project has been designed to include dedications and public improvements providing landscaping and hardscaping for pedestrians. The project includes initiatives aimed at promoting bicycle and foot traffic and limiting vehicular traffic as much as possible (see the TDM plan). The proposal aligns with this guideline.

Objective 7.3 Encourage proprietor ownership of business property.

Response: Though the proposed venue is not a proprietor owner it will support many of the small businesses in the area that are proprietor ownership and will likely also encourage new ones to open in the area. The proposal aligns with this guideline.

Objective 7.4 Encourage the formation of small, locally-owned businesses in Buckman.

A. Provide technical assistance to support the formation and growth of local businesses. (PDC)

Response: The presence of a large event venue within the Buckman neighborhood will bring economic vitality and interest to the neighborhood. Scheduled events will guarantee large numbers of visitors that will patron nearby stores, bars, and restaurants making the area especially attractive to local entrepreneurs. The proposal aligns with this guideline.

Objective 7.5 Foster better communication between business people and residents.

A. Encourage the formation of a coalition of Buckman business groups. (BCA, PDC)

B. Encourage business people to actively participate in business associations and the Buckman Community Association. (BCA, CEIC, BBA, HBBA)

C. Develop an annual awards committee for good-neighbor businesses. (BCA)

Response: As the proposed project has developed, community outreach has been an important part of the process. The Central Eastside Industrial Council – Land Use and Urban Development Committee has been involved and made aware, and the developer is active in that organization. The proposal aligns with this guideline.

Objective 7.6 Improve and maintain the physical appearance, including signage and other forms of visual communication, of commercial and industrial areas.

A. Provide more street trees in commercial areas. (BCA, FOT, BBA, HBBA, CEIC)

B. Identify and report sites where required landscaping is not being maintained. (Citizens, BCA)

C. Ensure that graffiti is promptly removed. (BCA, SEUL, Private)

D. Require automatic sprinkling systems and/or regular landscaping maintenance contracts for new parking lots. (BOP)

Response: The proposed venue seeks to improve the physical appearance of the area by developing a vacant lot into an attractive venue space. The building is designed in a way that preserves the aesthetic integrity of the Buckman Neighborhood as demonstrated in the attachments. The proposal aligns with this guideline.

Objective 7.7 Encourage development of the underutilized commercial property around SE 20th, Belmont, and Morrison with businesses that enhance the pedestrian environment and provide local services and goods.

Response: The proposed project fully encompasses this guideline by developing a vacant commercial lot near Morrison that enhances the pedestrian environment through thoughtful design. The proposed venue will provide entertainment for guests and will result in increased patronage to the surrounding local businesses. The proposal aligns with this guideline.

Objective 7.8 Discourage zone changes from residential to commercial unless qualifying under Objective 7.9.

Response: The proposed project does not seek to a zone change. This guideline is not applicable to the proposal.

Objective 7.9 On residentially-zoned sites with nonconforming commercial uses that are not in neighborhood or storefront commercial-type buildings, consider mixed-use residential/commercial development.

Response: The site is not residentially zoned. This guideline is not applicable to the proposal.

Objective 7.10 Encourage residential development on the upper floors of commercial buildings in the SE Ankeny and 27th area to provide a compatible transition between the residential and commercial.

Response: The site is not located in the SE Ankeny and 27th area. This guideline is not applicable to the proposal.

Objective 7.11 Encourage effective buffers, both physical and functional, between industrial/commercial and residential land uses to mitigate noise, traffic, unsightliness, and patron impact.

A. When necessary and possible, restrict the hours of operation within commercial zones and on nonconforming commercial sites to reduce their impact on surrounding residences. (BOP)

Response: The proposed site is located in the commercial/industrial area in the Central Eastside Industrial District of the Buckman area and will not impact residential areas. Additionally, the proposed venue will adhere to operational hour guidelines. The proposal aligns with this guideline.

Objective 7.12 Support the Central City Plan's recommendations for the development of the Central Eastside Industrial District in Buckman.

A. Encourage the Grand Avenue property owners and businesses to develop an identity and character for it that reflects its designation as an historic resource. (Private, CEIC)

B. Support development of a "Farmers Market" in Buckman or other central city location. (BBA, CEIC)

Response: Though the proposed site is not along Grand Avenue and is not proposing a Farmer's Market, it is proposing a desirable development on a vacant lot which will likely spur further improvements and developments in the area.

Objective 7.13 Support the development of artisan's lofts in underutilized industrial/ warehouse buildings, when conflicts of use are not anticipated.

Response: This Objective does not apply to the proposal, but the proposed development will increase the aesthetic appeal of the area which may spur further development.

Buckman Neighborhood Design Guidelines

1. Traffic Control
The city should employ specific controls to reduce traffic volume and speed on local streets. New construction should be designed so as to minimize traffic impacts on local streets.

Response: The proposed project abuts local streets to the north and south of the site (Main and Salmon); however, these streets dead end under I-5 and connect to the Eastbank Esplanade. Impacts will therefore be minimal. The traffic impact study further describes traffic control measures.

2. Vehicular and Parking Access
Off-street parking should be provided at the side or rear of lots or within a garage. Off-street parking should be visually screened from adjacent residences and streets by sight-obscuring plantings.

Response: No vehicular parking is proposed. This guideline is not applicable to the proposal.

3. Sidewalks

a. When repairs are made in the vicinity of stamped sidewalk details and/or their stones, all intact details (including those with minor hairline cracks or flaws) should be preserved: street names, park names, dates and contractor names. This may necessitate the use of concrete saws and/or additional handwork.

b. When a stone with details is badly damaged or hazardous, and the details are intact, the original dates, streets and park names should be removed and reset in new concrete. Contractors' names should be reset when possible.

c. When stamped sidewalk details are damaged beyond repair or resetting, the sidewalk stone should be replaced and restamped with all original street and park names, and both the original and current date (year). Contractors' names should be restamped when possible.

d. Wheelchair ramps should be located to avoid stamped details at sidewalk intersections, whenever possible.

e. When curb repairs are made, original horse rings should be reset in place. When badly damaged or missing, they should be replaced.

f. Standardized historic plaques and signs marking buildings, streets, and the neighborhood itself are encouraged and should be consistent in design with City and Federal standards for historic places.

Response: No stamped sidewalks, horse rings, or historic plaques are proposed or will be affected by the project.

Street Landscape

1. Street Trees

Species should be consistent with the character, height, canopy and spacing of a street's original plantings, the width of the parking strip, and the scale and function of the street within the neighborhood. All prudent measures should be taken by the City, utility companies and property owners to preserve original street trees. Sidewalk repairs and other excavation or construction near trees should avoid cutting tree roots. Programs should be developed to add street trees in areas which are lacking in trees.

Response: The site currently includes no existing street trees. The project includes plans to plant 11 new street trees which will follow City street tree requirements and guidelines. The proposal aligns with this guideline.

2. Parking Strips

Parking strips should be planted with designated street trees, grass or other appropriate plants. Parking strips are not to be used for parking areas or for street and sidewalk widening.

Response: The frontage improvements will be designed to current PBOT standards.

Open Space

1. Private Open Space—Front Yards

Original grade should be retained; berms and excavations are discouraged.

Response: This is not applicable to the proposed site or project.

2. Vacant Lots

Owners of vacant property are encouraged to provide attractive landscaping with native, low-maintenance plantings.

Response: The proposed project will not be a vacant lot. This guideline is not applicable to the proposal.

GUIDELINES OF GENERAL APPLICABILITY

1. Fences and Retaining Walls
Front and side yards which abut a street should be visually open to the street. Hedges, retaining walls and fences which visually obscure front yards are discouraged. Fences should be kept behind the building lines, as viewed from the street. Fences should be low to provide visual communication between yards for both security and neighborliness. Shared yards are encouraged. Chain link, barbed wire or metal, concrete block, plastic, fiberglass or plywood fences are especially discouraged. Unfaced concrete or concrete block are not appropriate for retaining walls.

Response: No fences or retaining walls are proposed as part of this project.

2. Crime Prevention
Crime prevention elements should be included in the design, with specific attention to landscaping, parking areas, walkways, lighting, entries and visibility. Windows and entries should not be obscured. Parking areas, walkways, and entries should be adequately illuminated for visibility.

Response: The proposal includes landscaping, walkways, lighting, and unobscured entries. The proposed design aims to prevent crime.

COMMERCIAL CONSTRUCTION & RENOVATION

1. Siting
Commercial buildings should be pedestrian oriented and have a zero front yard setback. In rehabilitating existing buildings, the architectural integrity of facades oriented to a street should be maintained. Additions and structural alterations should adopt the character of the existing building or be minimally visible from the street. The original topography and grade of building sites should be maintained.

Response: The proposed commercial building is pedestrian oriented with no front yard setback. Facades oriented toward the street will be well maintained.

2. Building Height
New buildings in commercial zones should not exceed three stories, or forty-five feet in height. (East of SE 12th Avenue)

Response: The proposed project is not East of SE 12th Avenue. This guideline is not applicable to the proposal.

3. Foundations
Commercial buildings should have foundations which are within six inches of the sidewalk elevation. Changes to a foundation should match or be compatible with the original foundation in height and materials.

Response: The proposed new building will have foundation within 6" of the sidewalk as shown in the elevations.

4. Exterior Siding Material
For commercial and large multi-family structures, stucco, brick or horizontal wood siding are recommended. Restoration and maintenance of original exterior materials is encouraged. Materials used on additions should match or be compatible with the predominant materials used on the original structure.

Response: The proposed venue is designed to be compatible with the existing aesthetic of neighboring buildings using similar materials such as cast in place concrete and CMU block. The proposal aligns with this guideline.

5. Roof Form
Commercial buildings should have flat roofs with parapets or false fronts. Detailing of the parapets with cornices and stepping is encouraged. Original structural and decorative features should be retained. Whenever possible, the original type, size, color and pattern of roofing materials should be used. Skylights, solar, mechanical and service equipment should be inconspicuous when viewed from the street.

Response: The proposed new building will have parapets and architectural features and angles. Mechanical equipment will be screened from the street.

6. Building Additions
Building additions should be in keeping with the original architectural character, color, mass, scale, and materials of a building. Additions should be designed to have the least impact upon character-defining features of a building.

Response: The proposed project does not include any building additions. This guideline is not applicable to the proposal.

7. Development Impacts
All new development should be designed and operated to minimize potential adverse impacts upon surrounding residences and to reduce conflicts with residential uses. Factors to be considered are traffic generation, deliveries, parking, noise, lighting, crime prevention, hours of operation and activity, visual effects and buffering.

Response: As the site is located in the Central Eastside Industrial District, there will be no effect on the residential portions of the Buckman neighborhood. Additionally, as discussed elsewhere in this narrative, the proposed project has addressed factors such as lighting, crime, hours of operation, traffic generation, and visual effects. The proposal aligns with this guideline.

8. Windows and Doors
Storefront windows with large fixed panes below and smaller panes above are encouraged. Blank facades with no windows are discouraged. Restoration of commercial storefront windows and facades is especially encouraged.

Response: Glazing and pedestrian-scale design are proposed on the first floor, particularly at the main entrances. The proposal aligns with this guideline.

9. Awnings
Retractable fabric awnings which are architecturally compatible with historic commercial structures are encouraged. Awnings should fit within window bays. Existing, traditional awnings should be rehabilitated.

Response: There are no fabric awnings proposed for this project.

10. Front Facade Detailing
Original entrances to buildings and detailing should be retained. New construction should include design elements compatible with original structures.

Response: The proposed venue includes design elements compatible with neighboring structures. The proposal aligns with this guideline.

11. Color
Restoration of original colors, or colors appropriate to the style and era of the building, is encouraged.

Response: This proposal is for a new development. This guideline does not apply; however the building has been designed to fit the style of the surrounding area.

12. Signs
Whenever possible, retention or restoration of original pre-1940 signs is encouraged. Wall signs, window signs, canopy and projecting signs attached to the building are encouraged; free-standing signs are discouraged. Sign materials and design and letters appropriate to pre-1940, such as painted wood and neon, are encouraged. Plastic sign faces are discouraged. Signs should not be the dominant feature of a building or site.

Response: There are no existing signs at the site and no additional signs are proposed at this time. This guideline is not applicable to the proposal.

13. Parking
On-site parking should be located at the rear of the building. Parking areas should be screened from adjacent properties; hedges and canopy trees are recommended as screens.

Response: There is no proposed parking as part of this proposal.

14. Amenities
The provision of amenities such as flower baskets and planters, appropriate sidewalk furniture (where space permits), and community bulletin boards is encouraged.

Response: The proposal includes hanging stormwater planters, living wall features, new street trees.

Central City 2035 Plan

Central City Policies: Regional Center

Civic and Cultural Center

POLICY 1.1 *Regional image. Strengthen the roles of the Central City and Willamette River in enhancing a positive image for the city, region and state.*

Response: The proposed venue will bring additional people to the neighborhood for shows. Those people will patron nearby bars and restaurants. This new livelihood and economic influx will enhance the area and reduce crime and illegal camping. It will likely draw new and improved development to the area.

POLICY 1.2 *Center of higher education. Support the ability of major universities and other higher education institutions to strengthen the Central City as a center of learning, business and innovation.*

Response: The proposed event venue could potentially be used as a space that hosts events which support learning, business, and innovation. The proposal aligns with this guideline.

POLICY 1.3 *Center of urban innovation. Strengthen the role and stature of the Central City as a laboratory and showcase for innovative urban development and as a regional leader in the development of businesses related to clean technology, green practices and design, and resource conservation.*

Response: The proposed building's innovative design will function as an example of leadership in green practices, design, and resource conservation, and may serve as a foundation for similar buildings or projects in the Central City. The proposal aligns with this guideline.

POLICY 1.4 *Tourism, retail and entertainment. Expand upon activities in the Central City that support tourism and complement economic success, vibrancy, and livability, with a special focus on retail, cultural events and institutions, public spaces, arts and entertainment, urban design, and transportation. See district policies section for related policies in: DT, WE, GH, PL, OT, LD, CE, SW, UD*

Response: The proposed event venue will host a variety of events enhancing the availability of cultural events as well as arts and entertainment for the community. The proposal aligns with this guideline.

POLICY 1.5 *Destination Willamette River. Enhance the riverfront as a destination by encouraging shops; restaurants; art; cultural, historic, ecological and maritime attractions; and recreation. Support opportunities and amenities for river tours, river transit and regional cruises to and from the riverfront.*

Response: The proposed venue may be the catalyst for more revitalization along the riverfront with its capacity to bring in thousands of visitors and increased economic opportunity to surrounding local businesses. The proposal aligns with this guideline.

Economic Vitality

POLICY 1.6 *Traded sector growth. Enhance business development efforts and assistance for targeted industry clusters and high growth sector companies.*

Response: The proposed development doesn't directly relate to this policy but the improved aesthetics and better use of the area with attractive buildings and neighborhood amenities can make for a more attractive area for a business to locate in.

POLICY 1.7 *Entrepreneurship and business innovation. Strengthen the Central City as a location for job creation by addressing development issues that affect businesses and supporting economic development strategies and programs that facilitate economic growth in the Central City.*

Response: The proposed venue and its construction will provide jobs and the project will facilitate economic growth as discussed many times in this narrative, by bringing additional patrons, foot traffic, employees, and potentially new businesses to the area. The proposal aligns with this guideline.

POLICY 1.8 *Innovation Quadrant. Capitalize upon the physical connections created by the Tilikum Crossing to connect Central Eastside industries with westside institutional assets such as Oregon Health Science University (OHSU) and Portland State University (PSU). Facilitate the growth of traditional and emerging industries in service to the Innovation Quadrant and encourage venues such as the Oregon Museum of Science and Industry (OMSI) to showcase the diversity of research, economic development, and educational activities occurring within the quadrant. Encourage a range of businesses from start-up firms to corporate headquarters, with particular focus on knowledge-based industries such as technology and research and development, to locate in the area (see Regional Center map on page 34).*

Response: The inclusion of the proposed event venue in this area will further diversify what this section of the city has to offer. With its innovative and attractive design as well as the events it will offer to the community, the proposed space will likely bring in additional visitors including students from OHSU and PSU to the Central Eastside. The proposal aligns with this guideline.

POLICY 1.9 *Equity and the economy. Support greater access to and expansion of economic opportunities in the Central City for all groups facing longstanding disparities, including education, housing and employment so that they can achieve an equitable allocation of the benefits of development and economic prosperity. Accomplish this through land use tools (e.g., FAR bonuses and transfers) and/ or other programs.*

POLICY 1.10 *Next generation industrial/employment sanctuaries. Foster the long-term success of Central City industrial districts and the continuation of these areas as prime locations for investment and new industrial businesses, while supporting their evolution into places with a broader mix of businesses, living-wage jobs, and higher employment densities. See district policies section for related policies in: LA, CE*

POLICY 1.11 *Commercial affordability. Support efforts to make the Central City a competitive location for development and business location and operation.*

Response: As previously stated, the proposed event venue will increase the business and real estate attraction for the Central City. The proposal aligns with this guideline.

POLICY 1.12 *Day laborer organization and education. Continue efforts and initiatives within the Central City that organize and centralize day laborer services that can provide for worker rights education, outreach, and protect the rights of laborers.*

POLICY 1.13 *Surface parking. Support strategies and tools to encourage the redevelopment of surface parking lots. Discourage the development of new surface parking and ensure buildings will not be demolished to provide surface parking. See district policies section for related policies in: WE, GH, OT*

POLICY 1.14 *Flexible building design. Encourage flexible building design and construction, including structured parking, that allows buildings to be repurposed and accommodate a variety of uses in the future.*

Response: There is no structured parking included in this proposal and no buildings being repurposed. This guideline does not apply.

Central Eastside

POLICY 1.CE-1 Next generation industrial/employment sanctuaries.

a. *Industrial center. Protect the Central Eastside as a centralized hub of industrial businesses and services that support the regional economy by serving other industrial districts and businesses located throughout the Portland metropolitan area.*

b. *Industrial diversification. Support growth of new industrial sectors, protect existing sectors, and protect the Central Eastside as a place where startups and incubators can transition to mature and established businesses and sectors.*

Response: The proposed project will further the growth of a diversified industrial sector by serving as an attraction for existing and new business. The proposal aligns with this guideline.

POLICY 1.CE-2 Employment supportive mixed-use corridors. Enhance the vibrancy of major mixed-use corridors to optimize their potential to attract investment and the development of new retail, commercial office, and residential uses that complement and serve employees and businesses in the Central Eastside.

Response: As stated previously, the proposed event venue will strengthen the vibrancy of the Central Eastside and serve as an attraction for surrounding businesses and future investment. The proposal aligns with this guideline.

POLICY 1.CE-3 Southern triangle. Encourage redevelopment of large sites to include employment opportunities such as industrial office and headquarters office opportunities, and invest in new infrastructure to address transportation constraints.

a. Clinton Station Area. Facilitate the development of employment and residential, as well as neighborhood serving retail and community services that serve the Central Eastside and inner Southeast Portland neighborhoods.

Response: The proposed site is not in the Clinton Station area. This guideline does not apply.

b. OMSI Station Area. Create a major and active riverfront station area that includes land and water based transportation, as well as educational and recreational opportunities. Promote visitor-serving attractions, amenities, and retail, as well as a mix of high-density commercial office, institutional and industrial employment uses.

Response: The proposed project offers no changes to the riverfront station; however the proposed venue is likely to spur interest and present opportunity to revitalizing the station.

POLICY 1.CE-4 Workforce development institutions. Support institutions such as Benson High School, Portland Community College's CLIMB Center, OMSI, and others in their unique roles associated with workforce development through programs and partnerships that prepare Portlanders at different education and skill levels for employment in Central Eastside industries.

Response: The proposed event venue will offer jobs that will be available to workers with no education or experience as well as highly skilled workers with specialized degrees. With its close location to community organizations, it is likely that the proposed venue will provide many opportunities for Portlanders seeking workforce development. The proposal aligns with this guideline.

POLICY 1.CE-5 Tourism, retail and entertainment. Support river and riverfront uses and activities along the Eastbank Esplanade and near OMSI including active and passive recreation, ecological and maritime tourism, retail kiosks, restaurants and river transportation.

Response: Tourism and entertainment are foundational to the proposed event venue. As the site is adjacent to the riverfront, the Eastbank Esplanade will likely see more foot and bike traffic. The proposal aligns with this guideline.

Central City Policies: Housing and Neighborhoods

Response: This section was not included as the site is not located in or near a residential area.

Central City Policies: Transportation

Regional Hub

POLICY 3.1 Regional transportation hub. Strengthen the Central City as the highly accessible and multimodal hub for moving people and goods, reinforcing its regional center roles, enabling successful high density employment and housing development, and thereby affirming its role in Metro's Region 2040 Framework Plan.

Response: The proposal will increase the density of employment and the use of the area's existing multimodal transportation. The proposal aligns with this guideline.

POLICY 3.2 Portals. Manage entry points into the Central City to provide balanced multimodal access to efficiently accommodate the increase in person trips and goods delivery as a result of growth and development. Discourage through trips from using Central City streets.

Response: The proposal will come with a built-in balance of person trips in multi-modal transportation and goods delivery. The proposal aligns with this guideline.

Street Network

POLICY 3.3 Optimized street network. Improve street design and function to increase efficiency and safety for all transportation modes and the ability of the existing network to meet the access needs of businesses, shoppers, residents and visitors. Establish a system and standards that emphasize walking, bicycling, transit use and freight access while continuing to provide automobile access. See District Policies section for related policies in: DT, WE, GH, PL, OT, LA, LD, CE, SW, UD

Response: As described previously in this narrative, the proposed project fully embodies this guideline by better utilizing existing street and parking infrastructure and ensuring the area will be able to support increased foot traffic the proposed event venue would bring. The proposal aligns with this guideline.

POLICY 3.4 Transportation system management. Manage access and circulation to reduce traffic speeds and provide for safe street crossings, while balancing the need for vehicle and freight access to and from the district. Manage the roadway system within the Central City in a way that allows greater levels of traffic congestion. In congested areas, prioritize modes other than automobiles to accommodate travel demand.

Response: Transportation system management is built into the foundation of the proposed project. Bicycle and foot traffic are encouraged to prevent the area from becoming congested. No changes are proposed for freight access. The proposal aligns with this guideline.

POLICY 3.5 *Regional multimodal access. Work with the Oregon Department of Transportation on improvements to 1-405, 1-5 and US Highway 26 to enhance regional access to the Central City. Minimize through traffic on Central City streets, improve pedestrian and bicycle connectivity across freeways and create opportunities for capping freeways to lessen the barrier effect of the freeway and open new areas for potential development and/or parks, open space, and recreational opportunities.*

Response: This proposal is for the redevelopment of a partial block. Access to highways or other transportation facilities will not be affected; however, as described in the TIS, the project can be accommodated without problematic impacts to the system.

POLICY 3.6 *Mode split. Strive to achieve the Central City targets set in the most current Transportation System Plan.*

Response: The TIS was prepared addressing the current TSP.

POLICY 3.7 *Street diversity. Differentiate the character of key streets to offer a diversity of urban experiences and connections, reflect the character of unique districts and expand open space and recreation functions in the right-of-way where possible.*

Response: The frontage improvements will be designed to meet the current TSP standard.

POLICY 3.8 *Streetscape. Improve the street environment and pedestrian experience by providing urban greenery and community uses of the right-of-way and by integrating high-density uses.*

Response: The proposed project includes the planting of 11 new street trees, living walls, storm planters, and an ecoroof making for a more attractive pedestrian experience. The proposal aligns with this guideline.

Active transportation, Transit and Demand Management

POLICY 3.9 *Walking. Encourage walking as the principal way to get around the Central City, with improved on-street and off-street infrastructure that enhances safety and closes access gaps to areas within, and adjacent to, the Central City.*

Response: The project proposes no new automobile parking and active right-of-way uses in an effort to encourage foot traffic as the main avenue to attending events. The adjacent streetscape will be improved with a widened sidewalk which is associated with increased safety. The proposal aligns with this guideline.

POLICY 3.10 *Bicycling. Prioritize bicycling by implementing world-class on-street and off-street infrastructure that is safe, comfortable and convenient for people of all ages and abilities. Augment capital improvements with robust encouragement, education and enforcement efforts.*

Response: The proposed event venue includes innovative initiatives to make better use of existing street infrastructure to encourage bicycle traffic. The proposal aligns with this guideline.

POLICY 3.11 *Transit. Continue to strengthen the regional role of transit in the Central City. Support increased frequency, span-of-service, reliability and safety, as well as expansion of the rail, bus and streetcar systems. Explore river transit opportunities. Facilitate safe, pleasant and efficient access and transfer opportunities for transit riders via a clear, intuitive and convenient transit network that consolidates fragmented routes and provides high standards of transit amenities.*

Response: The proposed project is not transit related; however, it will likely generate interest in these goals especially along the Eastbank Esplanade of the river.

POLICY 3.12 Transportation demand management. Foster the development of business and property owner supported programs, incentives and activities that encourage employees, residents, students and visitors to use walking, cycling, transit, carpool and car-share, as well as telecommuting and traveling outside the hours of peak congestion.

Response: As mentioned previously in this narrative, the proposed project includes initiatives that will address transportation demand management and encourage event patrons to utilize alternative transportation methods.

Parking and loading

POLICY 3.13 Auto parking. Support Central City parking needs, particularly for retail, employment and residential growth, as well as for access to major attractions such as universities and event venues. Continue to limit the growth of the overall auto parking supply, and maximize the joint use of existing and new stalls to manage parking in a more efficient and dynamic manner, lower the costs of construction and meet mode split and climate action goals for the city. Maintain no auto parking minimum requirements in the Central City and set maximum auto parking ratios to encourage other modes and allow new long-term parking only if associated with new development or to serve buildings with little parking.

Response: The proposed project proposes no additional parking supply and better utilized existing parking infrastructure in the surrounding area. The proposal aligns with this guideline.

POLICY 3.14 Bicycle parking. Encourage the provision of bicycle parking to serve the expected increase in bicycle trips in the Central City.

Response: Long-term bicycle parking will be provided for employees and 100 short-term bicycle parking spaces in the SE Salmon Street ROW are included in the proposed project to address the increase in expected bicycle trips during events. The proposal aligns with this guideline.

POLICY 3.15 Public Parking. Continue to manage public parking on the street system and in public garages to support Central City parking needs, prioritizing short trips and turnover to serve retail and visitor needs. Develop a performance-based parking program that manages Central City public parking to meet performance targets via dynamic pricing and other parking management tools and by providing clear and transparent parking information. Balance the need for on street parking with other uses of the curb zone. In managing the supply of on-street parking, the first priority is for short-term parking, followed by carpool and finally long-term parking.

Response: This proposal will not affect PBOT's management of on-street parking, but as described in the TIS, the existing on-street parking will not be negatively impacted.

POLICY 3.16 Loading. Support the delivery of goods in the Central City. Pursue strategies that bring new ways of delivering goods to the Central City in a way that optimizes loading and freight access and makes efficient use of limited urban space.

Response: Loading is proposed partially in the right-of-way to maximize the limited space, as is often done in the Central Eastside Industrial District. The proposal aligns with this guideline.

Central Eastside

POLICY 3.CE-1 Optimized street network. Improve connectivity to and throughout the district for all modes by creating safe, accessible and convenient routes with improved signalization and

clear signage to link landward portions of the district with major attractors and the riverfront.

Response: No changes are proposed to the street network, but the project will encourage use of all modes of transportation and encourage connectivity to and around the venue.

POLICY 3.CE-2 Freight system. Enhance freight movement in and through the district and maintain and improve access to and from the district and regional freeway system.

Response: Freight access will not be affected the proposed event venue. This guideline is not applicable to the proposal.

POLICY 3.CE-3 Green Streets. Strategically support the enhancement of east-west city walkways and bikeways to serve the multiple objectives of travel, stormwater management, open space and recreation, and placemaking. Routes should also strengthen connections to the river and riverfront. Green Streets should be chosen to avoid significantly impacting freight movement as identified by Transportation System Plan freight designations.

Response: No changes are proposed to the street types, but the project will encourage use of all modes of transportation and encourage connectivity to and around the venue.

POLICY 3.CE-4 Reduce trail conflicts. Reduce bicycle and pedestrian conflicts on the Eastbank Esplanade and the Greenway Trail through design modifications like separating bicycle and pedestrian facilities, education, signage and other means.

Response: No changes are proposed to the Greenway Trail. This guideline is not applicable to the proposal.

Central Policies: Willamette River

Multifunctional river

POLICY 4.1 Portland's commons. Promote improvements and activities on the riverfront and in the Willamette River to strengthen the physical, visual, and cultural connections between the river and the rest of the Central City. Increase public awareness of the river's historical, economic and ecological importance.

Response: The proposed event venue will bring interest to the Eastbank Esplanade which may initiate progress on these initiatives. The proposal aligns with this guideline.

POLICY 4.2 Willamette River recreation. Provide for safe, enjoyable and valuable active and passive recreational experiences for all users on, along and in the river. Enhance the interconnected system of parks, trails, docks, natural areas and destinations adjacent to and within the river.

Response: The proposed event venue will diversify the existing entertainment options along the river and be accessible to a wide range of people. The proposal aligns with this guideline.

POLICY 4.3 Prosperous and vibrant Willamette River waterfront. Support river-dependent, river-related and other uses that capitalize on the river and riverfront locations, expand tourism and commercial uses, and reinforce the distinctive character of the different riverfront districts.

Response: The proposed event venue will bring interest toward the riverfront area which may initiate progress on these initiatives. The proposal aligns with this guideline.

POLICY 4.4 *Willamette River transportation. Improve infrastructure that supports commercial, river transit, individual watercraft, tourist and recreational boating uses. Ensure that new river transportation terminals and docks are connected by streets and trails that provide direct access to transit from points throughout the Central City.*

Response: The proposed project does not include river transportation; however, with its location near the Eastbank Esplanade, the area may see interest in taking action on these initiatives.

POLICY 4.5 *Connections to the Willamette River. Increase the community's enjoyment of and direct experience with the Willamette River. Improve physical and visual connections between the districts and the Willamette River.*

Response: The proposed project does not abut the river or make any changes to connections to the river. This guideline is not applicable to the proposal.

POLICY 4.6 *Watershed health and native species recovery.*

a. Watershed Health. Improve the quality, quantity, connectivity and overall function of the ecological system including upland, riparian and in-water habitat to protect public health and support the conservation and restoration of native fish and wildlife populations.

Response: The proposed project implements as much green design as possible to decrease stormwater runoff and sustain watershed health. The proposal aligns with this guideline.

b. Threatened, endangered and at risk species. Restore in-water, riparian and floodplain habitat that supports fish and wildlife populations at risk of becoming or are currently threatened or endangered.

Response: The proposed project has no effect on threatened, endangered, or at-risk species. This guideline is not applicable to the proposal.

c. Floodplains. Improve the ability of floodplains to store water, reduce risks on the public and provide habitat functions.

Response: The site is not within a floodplain. This guideline is not applicable to the proposal.

d. Stormwater Management. Reduce stormwater entering into the separated sewer system.

Response: A stormwater planter, an ecoroof, living walls, and street trees are included in the proposed project to improve stormwater management. The proposal aligns with this guideline.

e. Riverbank enhancement targets. Strive to meet Central City targets related to riverbank enhancement and restoration.

See district policies section for related policies in: DT, PL, OT, LD, CE, SW, UD

Response: The proposed project proposes no changes to the riverbank. This guideline is not applicable to the proposal.

River-oriented development

POLICY 4.7 Periodic flooding. Minimize the risk to new and existing development and infrastructure from flood events, while also maintaining and enhancing ecological functions associated with the river and floodplain.

Response: The site does not abut the river. This guideline is not applicable to the proposal.

POLICY 4.8 Relationship to the river. Encourage development adjacent to the Willamette River to orient buildings towards the river, at appropriate setback distances. Add entrances, visual and physical connections, art installments and other amenities in order to create a relationship between the built environment and activities along the river.

Response: The site does not abut the river. This guideline is not applicable to the proposal.

POLICY 4.9 Commercial development. Encourage new clusters of commercial uses adjacent to the Willamette River, at appropriate setback distances, in order to bring more people, events and activities to the riverfront.

Response: The site does not abut the river. This guideline is not applicable to the proposal.

POLICY 4.10 Bridgehead redevelopment. Support the redevelopment of bridgehead sites to create dynamic places that bring a diversity of residents, workers and visitors to the riverfront and link east- and west-side districts of the Central City.

Response: The site does not abut the river. This guideline is not applicable to the proposal.

POLICY 4.11 Low impact development. Incorporate low-impact design in new and replacement docks and require appropriate setback distances for new development near the river.

Response: The proposed project does not include development of docks. This guideline is not applicable to the proposal.

Central Eastside

POLICY 4.CE-1 River economy. Leverage the Willamette River as an important component of the Central Eastside's local economy by supporting river-dependent and river-related commercial and mixed uses that bring more people to and on the river.

Response: With the ability to bring in thousands of visitors per year, the proposed event could revive an interest in river-dependent uses with its location next to the Eastbank Esplanade.

POLICY 4.CE-2 Southeast riverfront. Improve the physical relationship between buildings, activities and the Willamette River. Utilize building design, active ground floors facing the river, new uses, open areas and connections that encourage people's enjoyment of the river in both public and private spaces.

Response: The site does not abut the river. This guideline is not applicable to the proposal.

POLICY 4.CE-3 Watershed health and native species recovery. Enhance in-water and riparian habitat from the Burnside Bridge to the Ross Island Bridge by replacing invasive and non-native plants with native plants and trees and creating complexity in shallow water areas. Restore in-water, riparian and upland habitat and increase flood capacity at the Eastbank Crescent.

Response: The proposed project offers no changes to watershed health and native species recovery. This guideline is not applicable to the proposal.

Central City Policies: Urban Design

Context and Form

POLICY 5.1 *Experimentation and innovation. Support the design of new places and uses, both permanent and temporary that promote innovation, experimentation and exchange in the Central City.*

Response: The proposal is for an event venue which will support creative artists and small events, encouraging creativity and vitality in the Central City.

POLICY 5.2 *Central, connected Willamette River. Create a network of open space and tree canopy corridors to make ecological and design connections to the river.*

Response: The project includes the widening of sidewalks, planting of 11 street trees around the lot, stormwater planters, living walls, and an ecoroof to make for a more open and welcoming green environment. The proposal aligns with this guideline.

POLICY 5.3 *Dynamic skyline. Encourage the tallest buildings to locate adjacent to transit hubs and corridors, generally stepping down in height to the Willamette River. Allow taller buildings at bridgeheads and encourage contextually sensitive heights within historic districts. Encourage heights and building forms that preserve sunlight on public open spaces and parks.*

Response: The proposed building will have a sloped roof that aligns with the current typical four stories of the surrounding buildings. The proposal aligns with this guideline.

POLICY 5.4 *Scenic Resources. Protect public views of key landmarks and scenic resources (Vista Bridge, Union Station, Mt. Hood, Willamette River bridges) which define the Central City, help with wayfinding, and connect residents, employees and visitors to Portland's varied and unique landscape.*

Response: The proposed event venue will not impede any scenic resources. The proposal aligns with this guideline.

POLICY 5.5 *Large site development. Encourage redevelopment of large sites that includes new compatible uses, green buildings and equity considerations, scenic resource preservation, new pedestrian connections through the site, strong street presence, green infrastructure, and new open space amenities.*

Response: The site is a vacant lot and the proposed project is a compatible use for a rectangular site along SE Water Avenue. The design has taken into account green building standards, equity, scenic resource preservation, pedestrian environment, green infrastructure, and new open space amenities as discussed previously in this narrative. The proposal aligns with this guideline.

POLICY 5.6 *Distinct and vibrant districts. Enhance the existing character and diversity of the Central City and its districts, strengthening existing places and fostering the creation of new urban places and experiences.*

Response: The proposed event venue will be a valuable new urban place and experience for the Central City. With the thoughtfully designed exterior components, the proposed building will enhance the existing character of the Central City while also bringing a modern feel. The proposal aligns with this guideline.

POLICY 5.7 Neighborhood transitions. Establish transitions between the Central City's denser, taller and more commercial and industrial land uses and adjacent neighborhoods, while highlighting key gateway locations.

Response: The site does not abut a residential neighborhood. This guideline is not applicable to the proposal.

Connected Public Realm

POLICY 5.8 Public realm. Enhance the character and function of the public realm through design standards, guidelines, amenities and land uses that activate the pedestrian environment and encourage community gathering.

Response: With the inclusion of widened sidewalks and green elements the proposed project has prioritized the pedestrian landscape to the fullest extent possible. The proposal aligns with this guideline.

POLICY 5.9 Wayfinding. Develop wayfinding strategies and tools that allow residents, employees, visitors and customers to navigate the Central City and locate key attractions, businesses, institutions, the riverfront and other destinations in a safe, intuitive and enjoyable manner.

Response: No changes are proposed to public wayfinding, but the venue will be a clear landmark and attraction and visible from nearby blocks and the riverfront. The proposal aligns with this guideline.

POLICY 5.10 Street hierarchy and development character. Establish a more intentional street hierarchy with a greater diversity of street characters, distinguishing three main types: retail/commercial, boulevard and flexible.

Response: No changes are proposed to the street hierarchy. This guideline is not applicable to the proposal.

POLICY 5.11 Regional corridors and connections. Promote the presence, character and role of physical and visual corridors such as trails, transit lines, streets and scenic corridors, helping to bridge neighborhoods across physical and psychological barriers.

Response: No changes are proposed to regional corridors and connections. This guideline is not applicable to the proposal.

POLICY 5.12 "Green Loop" concept. Create a "Green Loop" that connects east and west side neighborhoods to open spaces and the Willamette River, with high quality bicycle accommodations, tree canopy, innovative, park-like pedestrian environments, and wildlife habitat connections. Enhance connections to the "Green Loop" alignment on key corridors throughout the Central City to improve access, create activity nodes and support neighborhood attractions and economic development.

Response: The proposal includes a green-infused building and new street trees improving the pedestrian environment and wildlife habitat options. The proposal aligns with this guideline.

POLICY 5.13 MAX-Portland Streetcar interchanges. Create supportive environments for transit connections that occur where MAX light rail lines cross Portland Streetcar lines in the West End, Lloyd and the Central Eastside.

Response: The site is not near the MAX or Portland Streetcar lines. This guideline is not applicable to the proposal.

POLICY 5.14 Streetcar lines. Require active uses near Portland Streetcar stations and limit auto-oriented development.

Response: The site is not near the Portland Streetcar lines. This guideline is not applicable to the proposal.

POLICY 5.15 Limit auto-oriented development. Prohibit drive-throughs with new development.
Response: The proposed project limits vehicular traffic as much as possible with no drive-throughs. The proposal aligns with this guideline.

Parks and Open Space

The project does not involve any parks. These guidelines are not applicable to the proposal.

Historic Preservation

The project does not involve any historic elements. These guidelines are not applicable to the proposal.

Central Eastside

POLICY 5.CE-1 East Portland Grand Avenue Historic District. Promote the rehabilitation of historic buildings and sensitive infill development in the Grand Avenue Historic District through updated design guidelines and regulations that incent rehabilitation and reuse over demolition. Encourage adaptive reuse of existing structures.
Response: The site is not in the East Portland Grand Avenue Historic District. This guideline is not applicable to the proposal.

POLICY 5.CE-2 OMSI Station area. Create an urban form at the OMSI Station area that facilitates public access from the streetcar and light rail stations to the greenway trail and riverfront, PCC, OMSI, Portland Opera, Portland Spirit, the Oregon Rail Heritage Foundation sites, through public realm enhancements and ground floor active uses that create a safe and vibrant environment.
Response: The site is not at the OMSI Station area. This guideline is not applicable to the proposal.

POLICY 5.CE-3 Clinton Station area. Establish an urban form at the Clinton Station area that creates a safe and active environment by incorporating a mix of uses that serve transit riders as well as residents and employees of the station area, Central Eastside, and inner Southeast Portland neighborhoods.
Response: The site is not at the Clinton Station area. This guideline is not applicable to the proposal.

POLICY 5.CE-4 Urban form on large blocks. Use building massing and orientation, accessways, and open spaces in the development of large blocks and sites to establish an urban form and block configuration consistent with the rest of the Central Eastside.
Response: The proposal is for the redevelopment of a vacant partial block and includes a large building, built near the lot lines, which will establish a strong sense of urban form and emphasize the block configuration. The proposal aligns with this guideline.

POLICY 5.CE-5 Open space network. Increase public parks, open space, and recreation opportunities in the district, especially in areas zoned for high density, mixed-use development. Broaden the number and range of available recreation opportunities.
Response: The proposed event venue will increase the availability of entertainment recreation. The proposal aligns with this guideline.

POLICY 5.CE-6 Street hierarchy and development character. Support the retail/commercial character of East Burnside, NE Sandy, SE Grand, SE Division, SE Hawthorne and SE Morrison; the boulevard character of SE Stark, NE Couch, SE 11th and SE 12th; and the flexible character of SE Ankeny, SE Salmon, SE Clay, SE 7th and SE Caruthers. Create transitions between industrial and mixed use areas.

Response: The site is in any of these areas and is in the center/toward the inner (river) edge of an industrial area, not near a transition with a mixed use area. This guideline is not applicable to the proposal.

POLICY 5.CE-7 Historic resources and districts.

a. Industrial character. Promote the historic industrial character of the Central Eastside through the preservation and enhancement of historic buildings and infrastructure that reflect past uses and architectural styles while serving existing and emerging industrial employment uses.

Response: The proposed project does not include any changes to existing historic buildings and infrastructure; however, the development that is proposed is designed with the historical integrity of the area as its foundation. The proposal aligns with this guideline.

b. Historic main streets. Enhance the character and visibility of historic streets throughout the district such as SE Morrison Street, including areas under viaducts, through public realm improvements and building rehabilitations that acknowledge these streets' historic role in shaping the district, while elevating their current status as important streets for commerce and employment.

Response: The site is on a historic main street. This guideline is not applicable to the proposal.

Central City Policies: Health and Environment

Resilience

POLICY 6.1 Natural hazard resilience. Encourage planning, design and education in the Central City to help prevent or minimize the impacts of natural hazards such as earthquakes, floods and other hazards identified in the citywide Natural Hazard Mitigation Plan.

a. New development. Encourage approaches to reduce future natural hazard risks and impacts when planning for or evaluating the location and design of new development.

b. Retrofitting. Encourage the retrofitting of buildings and infrastructure to withstand natural hazards. Prioritize the seismic retrofitting of unreinforced masonry buildings while preserving their architectural character. Support Multnomah County's efforts to seismically retrofit Central City bridges, recognizing the Burnside Bridge as the regionally-designated priority.

c. Preparedness. Support Central City residents' and businesses' efforts to prepare for natural hazards. Ensure the Central City's most vulnerable populations are included in these efforts.

d. Code review. Monitor relevant codes to incorporate current knowledge and standards for seismic design and flood protection.

Response: The site is not within a floodplain and does not include an existing building. The building will be designed to current codes.

POLICY 6.2 *Climate change resilience. Support planning, service system upgrades, and infrastructure in the Central City to anticipate, respond to, and reduce the risks and adverse impacts associated with evolving climate change conditions.*

a. Flooding. Adapt to changes in hydrology, including future river levels, changes in flood frequency and duration, and changes in stormwater runoff rates.

Response: The site is not within a floodplain. These guidelines are not applicable to the proposal.

b. Heat island. Encourage site designs, building designs and vegetation that reduce the adverse impacts of urban heat islands on public health and safety, especially those affecting more vulnerable communities.

Response: The proposed project includes an ecoroof, live walls, stormwater planters, and street trees all of which will reduce the heat print of the area. The proposal aligns with this guideline.

c. Fish and wildlife habitat. Improve the quality, diversity, connectivity, safety, and accessibility of terrestrial and aquatic wildlife habitat areas.

Response: The site is not located within a fish or wildlife habitat. This guideline is not applicable to the proposal.

POLICY 6.3 *Multiple functions. Encourage green infrastructure, parks, open space, and recreation opportunities in the Central City that serve multiple functions to provide capacity during flood event, improve stormwater management, reduce heat island effects, create pockets of fish and wildlife refuge, and provide places of respite and recreation for employees, residents and visitors.*

Response: The stormwater planter, ecoroof, and other elements of the project provide multiple benefits including visual softness, increasing pervious area, and providing habitat benefits. The proposal aligns with this guideline.

POLICY 6.4 *Green infrastructure. Increase the use of trees, ecoroofs, vertical gardens, sustainable site development, landscaped setbacks and courtyards, living walls and other vegetated facilities to manage stormwater, improve the pedestrian environment, reduce heat island effects, improve air and water quality and create habitat for birds and pollinators.*

a. Separated storm systems. Promote green infrastructure enhancements within the separated stormwater system to improve water quality in the Willamette River and at riverfront recreation areas.

Response: The proposed project includes stormwater planters, street trees, live walls, and an ecoroof to divert water to the separate stormwater system. The proposal aligns with this guideline.

b. Ecoroof. Support progress toward Central City ecoroof coverage targets.

Response: The proposed building will have as much ecoroof coverage as is possible with the structural design needed for an envent venue. The proposal aligns with this guideline.

POLICY 6.5 *Flood ready development. Reduce risks of flooding on existing and new buildings, transportation system and infrastructure.*

a. Impervious surface retrofits. Enhance flood capacity within the developed floodplain by retrofitting impervious surfaces with pervious surfaces and landscaping.

b. Flood capacity. Improve flood capacity by reducing development impacts and requiring mitigation for fill within the 100-year floodplain.

c. Building design. Encourage innovated building design along the Willamette River and in the 100-year floodplain to allow for ground floor flooding.

Response: The site is not within a floodplain. These guidelines are not applicable to the proposal.

Health

POLICY 6.6 *Human health. Encourage the use of active modes of transportation by creating and enhancing a network of bike and pedestrian facilities that provide access to services and destinations including natural areas. Improve access for all people to locally grown and healthy foods. Encourage the use of building construction methods, materials, products and best practices in lighting design that do not have harmful effects on human health and the environment. Encourage social health by fostering community in a hospitable public realm.*

Response: The project will include a pedestrian-friendly design and bicycle facilities, and will improve the public realm significantly from the currently vacant site. The proposal aligns with this guideline.

POLICY 6.7 *Light, Noise and Vibration Pollution. Encourage land use patterns, building design and landscape to limit and mitigate negative impacts of lighting, noise and vibration on public health and safety, disruption of ecosystems, and hazards to wildlife.*

Response: No private exterior lighting is proposed. The proposed event space is designed with modern design elements to decrease noise and vibration pollution. The proposal aligns with this guideline.

POLICY 6.8 *Upland habitat connections. Create an upland wildlife habitat corridor using trees, native vegetation in landscaping, public open spaces ecoroofs, and bird safe building design and practices that provide a safe, functional connection for avian and pollinator species between the West Hills, Mt. Tabor, Powell Butte, Rocky Butte and the Willamette River.*

Response: The proposed event venue will be fitted with an ecoroof, stormwater planters, and live walls that will be planted with native and pollinator attracting plants along with 11 street trees. The proposal aligns with this guideline.

POLICY 6.9 *Strategic tree canopy enhancement. Plant trees on tax lots, in parks and public spaces, and along rights-of-way, throughout the Central City to meet urban forestry and other Central City goals and guiding principles including resiliency, human and environmental health, livability, equity, and active transportation.*

a. Tree priorities. Encourage planting and preservation of large, healthy non-nuisance trees, native trees, and climate change-resilient trees.

Response: New street trees will be planted along the north, east, and southern sides of the proposed structure. All trees will comply with the relevant standards. The proposal aligns with this guideline.

b. Tree Diversity. Improve tree species and age diversity throughout the Central City.
Response: Planted trees will comply with the relevant standards. The proposal aligns with this guideline.

c. Heritage trees. Encourage the protection of designated Heritage and Landmark Trees.
Response: No trees currently exist on the site. This guideline is not applicable to the proposal.

c. Tree Canopy. Support progress toward meeting Central City tree canopy targets.

See district policies section for related policies in: CE
Response: Eleven street trees will be planted, resulting in additional canopy coverage within Central City. The proposal aligns with this guideline.

POLICY 6.10 Effective tree planting. Optimize tree planting opportunities and conditions throughout the Central City.

a. Tree size. Require that trees planted along rights-of-way are as large as is appropriate for the planting space.
Response: Planted trees will comply with the relevant standards. The proposal aligns with this guideline.

b. Soil volume. Encourage the provision of increased subsurface soil volumes to improve tree health and increase tree canopy coverage, especially in conjunction with development and infrastructure improvement project design and construction.
Response: Soil surrounding planted trees will comply with the relevant standards. The proposal aligns with this guideline.

c. Tree accommodation. Encourage wider sidewalk corridor furnishing zones and other right-ofway design elements (e.g., medians, bulb-outs) to facilitate planting and accommodation of larger canopy tree species.
Response: The proposed project includes widened sidewalks. The proposal aligns with this guideline.

d. Innovative design. Encourage innovative design strategies that accommodate existing healthy non-nuisance trees on site and incorporate new trees on sites and buildings. Trees on buildings may be placed on balconies and podium roof decks, planted in conjunction with an ecoroof, or in other locations.
Response: The proposed project includes the planting of 11 new street trees on an existing vacant lot. The project aligns with this guideline.

Building, infrastructure and site development

POLICY 6.11 Buildings and energy. Increase the energy efficiency of buildings, the use of onsite renewable energy systems, and the development of low-carbon district energy systems. Conserve resources by encouraging the reuse of existing building stock, salvaging architectural elements when demolition is necessary and recycling materials from construction and demolition.
Response: The proposal will meet applicable energy efficiency requirements of the building code and plan district. The project aligns with this guideline.

POLICY 6.12 *City investment in street trees. Invest in street trees as a valuable public infrastructure asset.*

a. Multiple benefits. Plant street trees to provide multiple benefits, including stormwater management, quality pedestrian environment, reduction in urban heat island, and wildlife habitat.

Response: The trees included in the proposed project provide the above benefits with no investment required from the City. The proposal aligns with his guideline.

b. Maintenance. Support innovative approaches, including public/private partnerships, to ensure adequate long-term maintenance of street trees to address tree-related concerns such as sidewalk repair.

Response: The project will not prevent the City from establishing such approaches.

POLICY 6.13 *Bird and wildlife-safe development. Encourage bird-friendly building and lighting design and management practices, to reduce hazards to resident and migrating birds, fish and other wildlife species.*

Response: The ecoroof, green wall, stormwater planter, and street trees will encourage wildlife. The proposed ecoroof plant species have been selected for their ability to provide habitat and ecological benefits. These species consist of a mix of herbaceous and native plants that support pollinators, butterflies, birds, and other wildlife.

POLICY 6.14 *Low-carbon development. Reduce carbon emissions from existing and new buildings, transportation systems and infrastructure.*

a. Healthy retrofits. Support retrofits to existing buildings to reduce energy use and improve indoor air quality.

Response: The project does not involve an existing building. This guideline does not apply to the proposal.

b. Green building. Encourage high-performance new buildings that meet the energy targets of the Architecture 2030 Challenge and 2015 Climate Action Plan, including net-zero energy use in all new buildings by 2030.

Response: The proposal will meet applicable energy efficiency requirements of the building code and plan district. The project aligns with this guideline.

c. High performance areas. Encourage "high performance areas" that conserve energy and water; use renewable energy sources; reduce waste and recycle; manage stormwater; improve occupant health; and enhance the character of the neighborhood, particularly in areas with large amounts of planned new development or redevelopment.

Response: The building will replace an impervious gravel lot and will increase the performance of the site.

d. Solar energy. Encourage the installation of on-site solar photovoltaic systems.

Response: The project does not prevent the installation of such systems.

e. Clean district energy. Enable the expansion and establishment of district energy systems that reduce carbon emissions.

Response: The project does not affect such establishment and establishment.

f. Low-carbon transportation. Reduce carbon emissions from transportation systems, including supporting electric vehicle infrastructure.

Response: The proposal discourages automobile transportation while encouraging bicycle and foot traffic. The proposal aligns with this guideline.

g. Carbon sequestration. Support the use of green infrastructure to increase carbon sequestration and reduce energy needed to cool buildings in summer.

Response: The previously discussed green elements in the proposed project increase carbon sequestration. The proposal aligns with this guideline.

Central Eastside

POLICY 6.CE-1 Freight-compatible green infrastructure. Plan for the development of green infrastructure, in the public right-of-way and on private property, taking into account freight street hierarchy by prioritizing city walkways and bikeways and mixed-use corridors for improvements such as trees and living walls throughout the district. Support the industrial area's functional relationship to the river.

Response: The project and frontage improvements are consistent with the TSP designations for the site. The proposal aligns with this guideline.

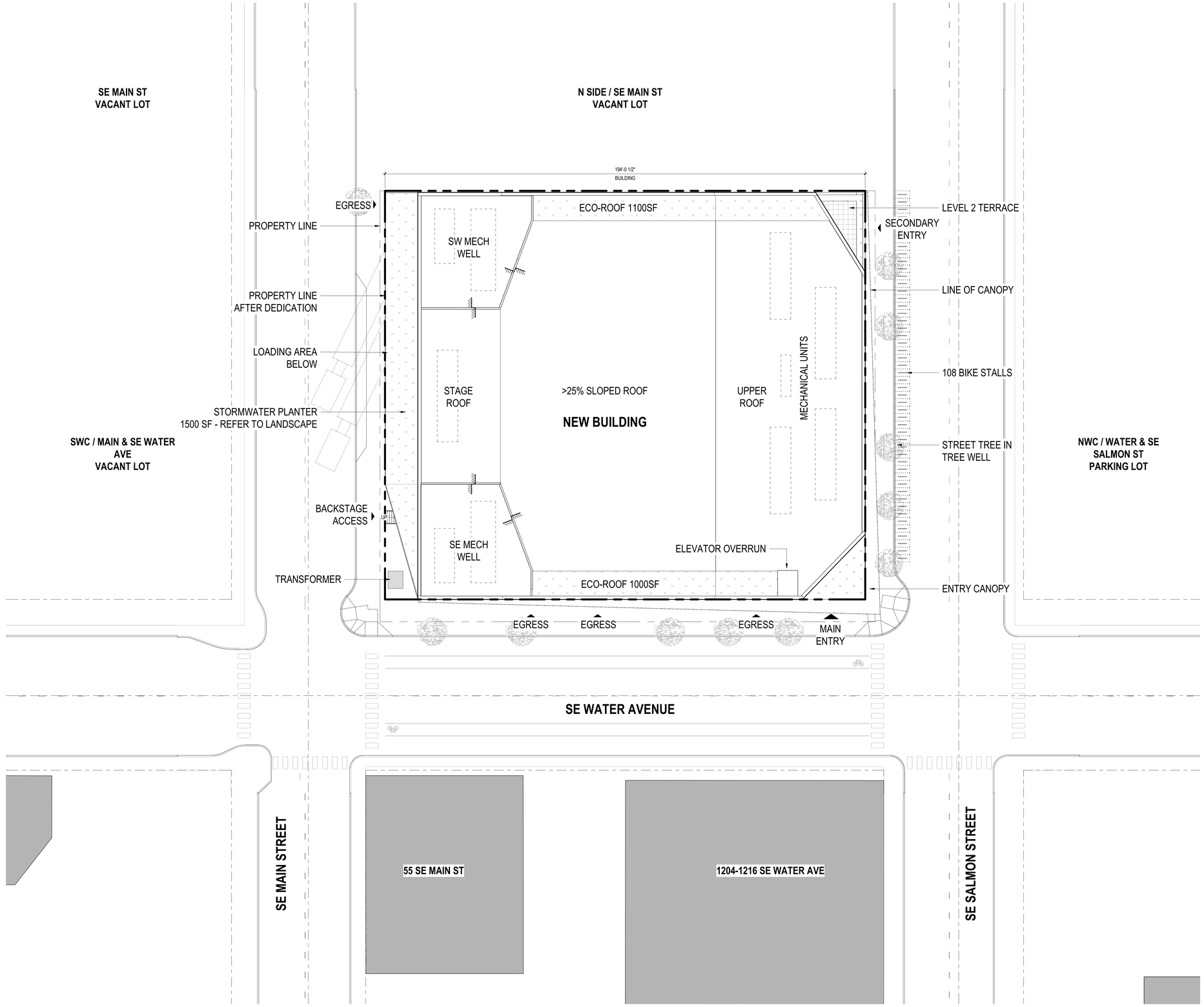
POLICY 6.CE-2 Strategic tree canopy enhancement. Promote planting, district-wide, and especially along mixed use commercial corridors with higher employment densities and residential uses, and along pedestrian and bike corridors. Select trees and locations that provide adequate clearance for freight movement on streets prioritized for freight mobility.

Response: The trees included in the proposed project are within a commercial corridor. The site is not on a street prioritized for freight mobility. The project aligns with this guideline.

VII. CONCLUSION

This application requests Conditional Use approval for the development of a new event venue in the Central Eastside Industrial District along with the approval of two Adjustments to development standards for loading spaces and ecoroof requirements.

Based on the information presented and discussed in this narrative, in conjunction with the attached supporting plans and documentation, the project demonstrates that it meets all criteria and standards. Furthermore, the project goes beyond just achieving the criteria for approval in that this innovative event venue will bring a much-needed vibrancy to the district, its people, its businesses, and the City at large. The applicant respectfully requests approval.



1 Z090 ZONING - SITE PLAN
SCALE: 1/16" = 1'-0"

SITE DATA TABLE

SITE AREA:
34,860 SF

SITE AREA AFTER DEDICATION:
32,040 SF

BUILDING COVERAGE:
31,600 SF

TOTAL BUILDING AREA:
98,500 SF

VENUE CAPACITY:
APPROX 3,800 OCCUPANTS

BIKE PARKING TOTALS

(TABLE 266-6 MAJOR EVENT ENTERTAINMENT)

LONG TERM BIKE PARKING:
REQUIRED: 10 PROVIDED:10

SHORT TERM BIKE PARKING:
3800 OCCS / 40
REQUIRED: 95 PROVIDED: 108

CENTRAL EASTSIDE VENUE

NWC/MAIN & SE WATER AVE
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SCALE
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SHEET TITLE
ZONING - SITE PLAN

Z090

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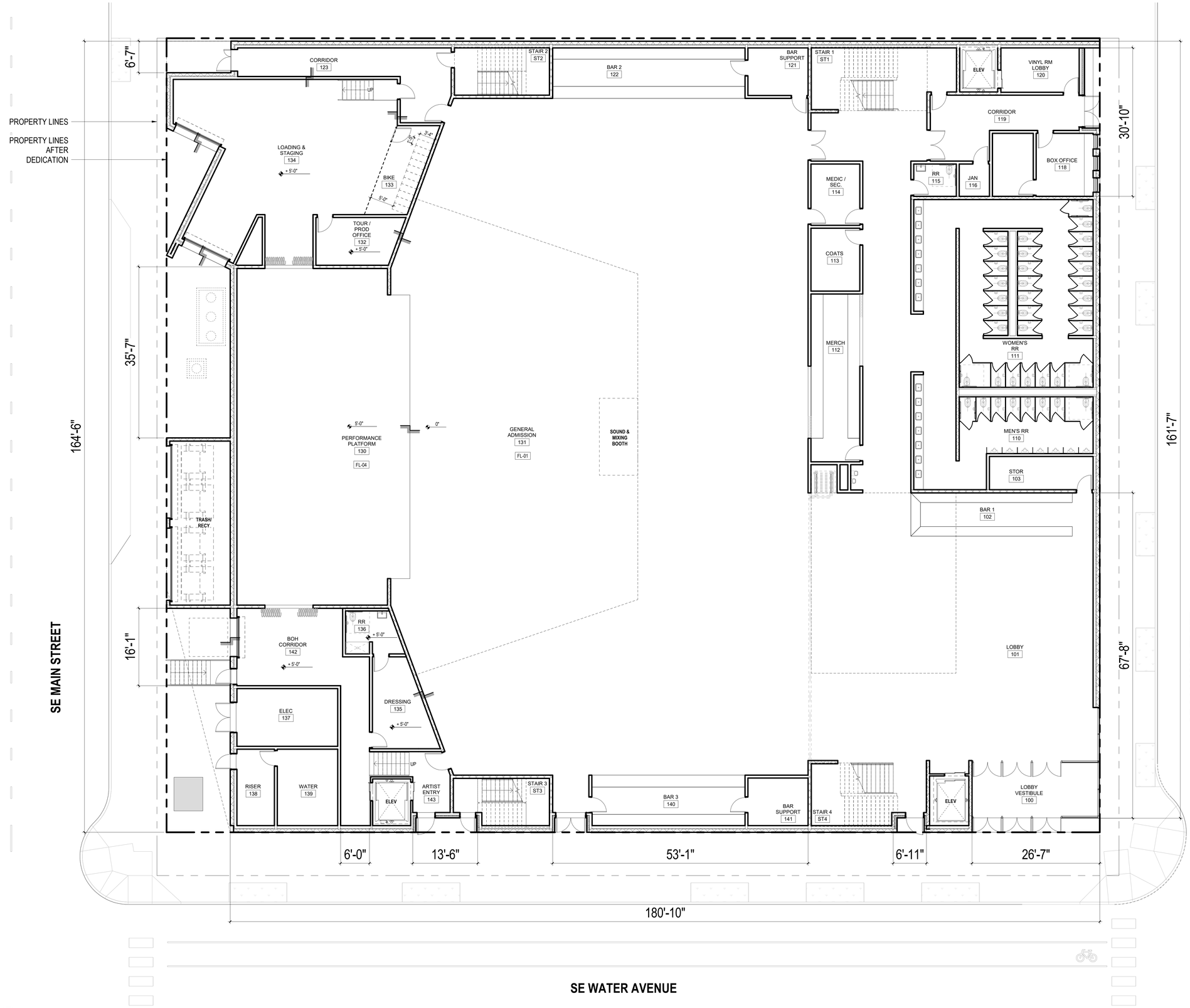

1 Z101a ACTIVE USE - LEVEL 1 FLOOR PLAN
SCALE: 1/8" = 1'-0"

ACTIVE USE CALCULATIONS

SE SALMON STREET:
161'-7" WALL LENGTH
98'-6" ACTIVE USE LENGTH

61% ACTIVE USE ON SE SALMON STREET

SE WATER AVENUE:
180'-10" WALL LENGTH
106'-1" ACTIVE USE LENGTH

59% ACTIVE USE ON SE WATER AVENUE

SE MAIN STREET:
164'-6" WALL LENGTH
58'-3" ACTIVE USE LENGTH

35% ACTIVE USE ON SE MAIN STREET

COMBINED ACTIVE USE:
506'-11" WALL LENGTH
262'-10" ACTIVE USE LENGTH

52% COMBINED ACTIVE USE

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SHEET TITLE
ACTIVE USE - LEVEL 01 FLOOR PLAN

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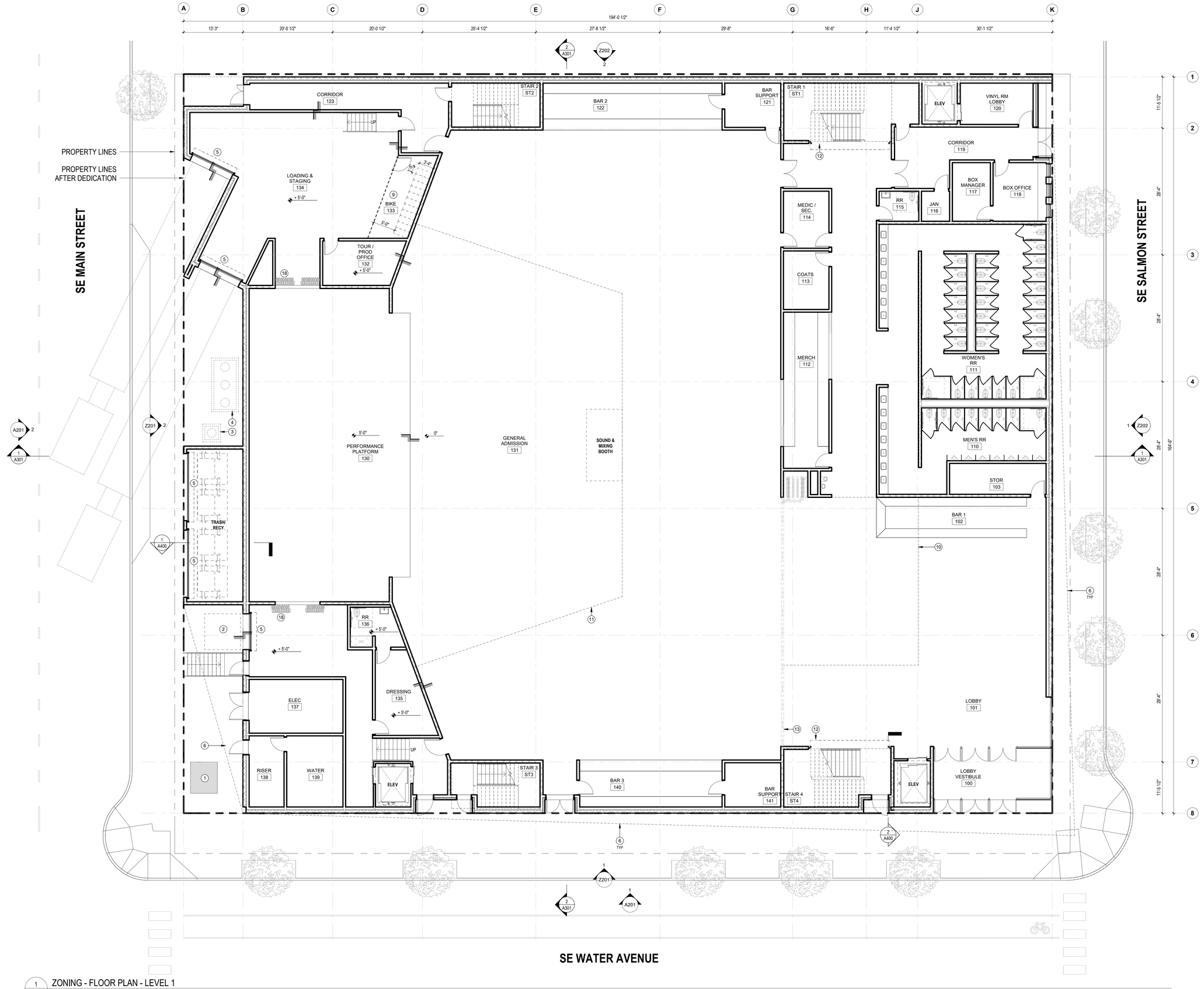

PLAN KEYNOTES

1 ELECTRICAL TRANSFORMER
2 PLATFORM LIFT
3 INSPECTION VAULT
4 GREASE INTERCEPTOR
5 OVERHEAD ROLL-UP DOOR
6 LINE OF CANOPY ABOVE
7 CLIMBING VINE PLANTER
8 ROOFING MEMBRANE COMPLIANT WITH COOL ROOF REQUIREMENTS
9 (11) LONG-TERM, ALTERNATIVE VERTICAL BIKE PARKING SPACES WITHIN ENCLOSURE
10 LINE OF OPENING ABOVE
11 LINE OF LEVEL ABOVE
12 12'-0"H FIRE RATED OVERHEAD COILING DOOR WITH MOTOR OPERATOR
13 12'-0"H POCKETED FOLDING PARTITION W/ EGRESS DOOR
14 ELEVATOR OVERRUN
15 INTERIOR GLAZING
16 DRINK RAIL
17 PORTABLE BAR
18 STAGE CURTAINS

SEAT COUNT

LEVEL 1: **2,002 STANDING GA**
440 LOBBY

LEVEL 2: **286 SEATS** (6 ACCESSIBLE)

LEVEL 3: **14 SEATS** (6 ACCESSIBLE)
32 BAR RAIL (20"/PERSON)

LEVEL 4 (UPPER RAKE): **1,026 SEATS**
(4 ACCESSIBLE)

OCCUPANTS: 3,800

LEGEND

CMU WALL - REFER TO STRUCTURAL

PROPERTY LINE

KEYNOTE

CENTRAL EASTSIDE VENUE

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SHEET TITLE
FLOOR PLAN - LEVEL 1

Z101

1 Z101 ZONING - FLOOR PLAN - LEVEL 1
SCALE: 1/8" = 1'-0"

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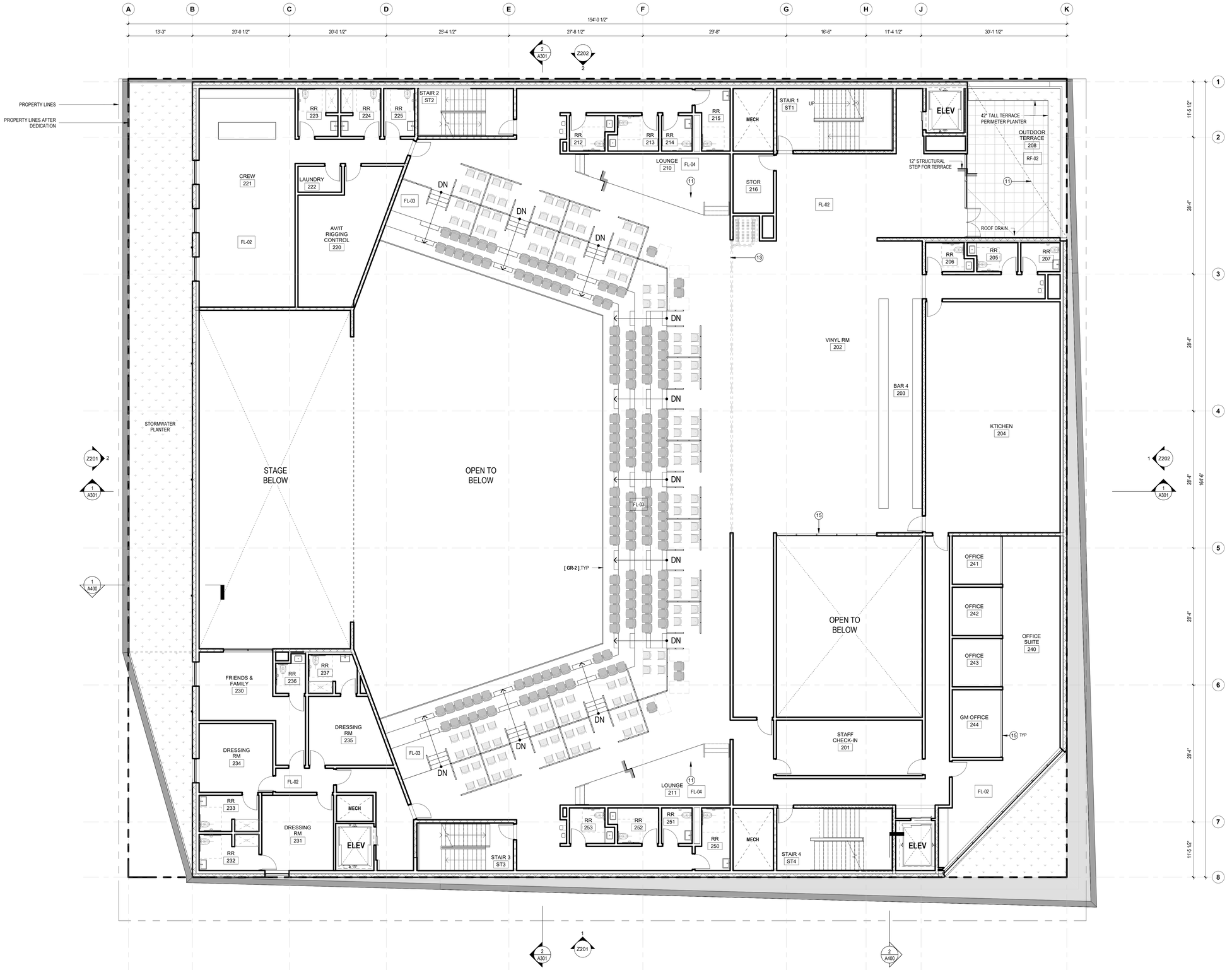

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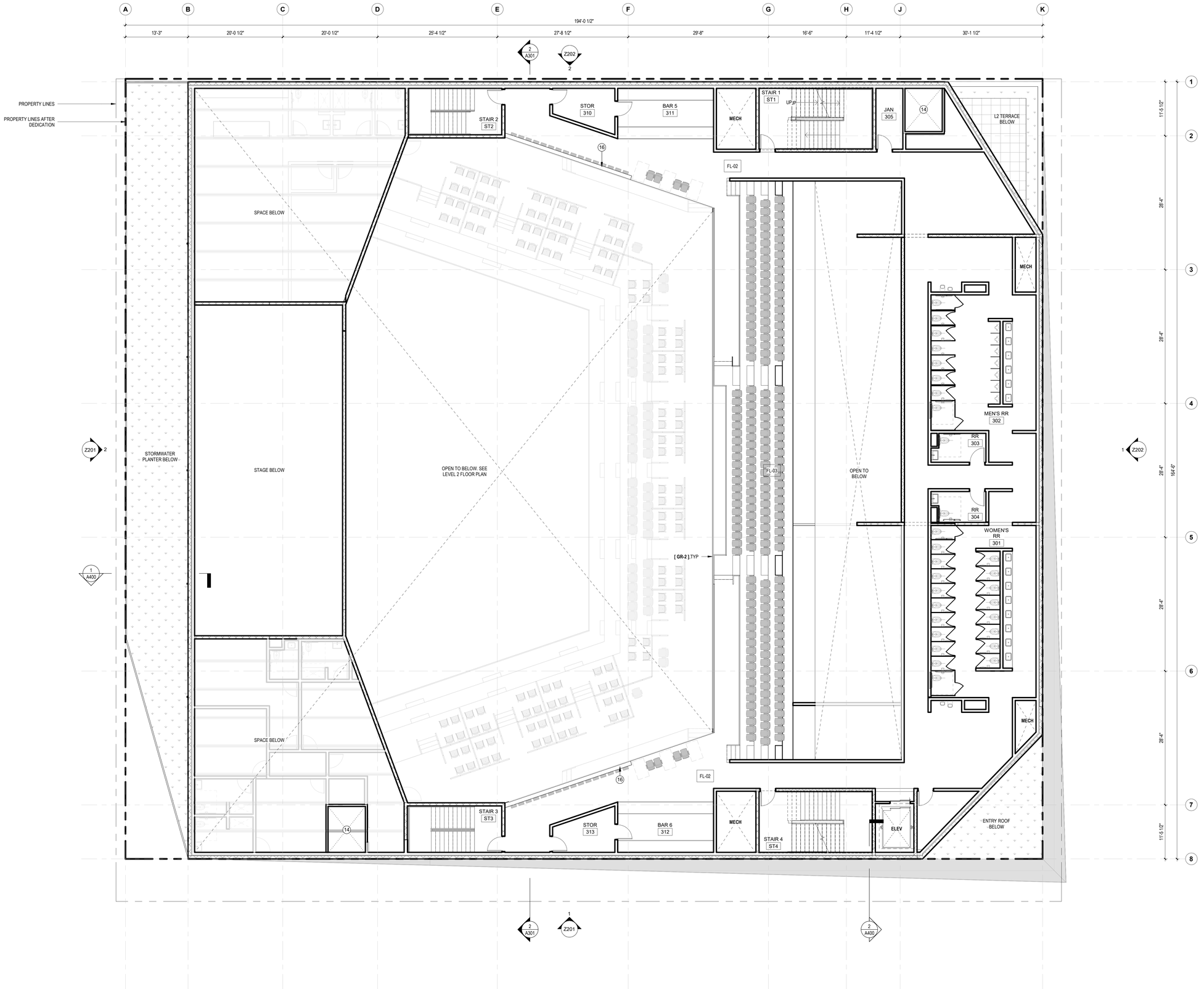
SCALE
As indicated

SHEET TITLE
FLOOR PLAN - LEVEL 2

Z102

1 Z102 ZONING - FLOOR PLAN - LEVEL 2
SCALE: 1/8" = 1'-0"



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(4 ACCESSIBLE)

OCCUPANTS: 3,800

LEGEND

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SCALE
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SHEET TITLE
FLOOR PLAN - LEVEL 3

Z103

1 Z103 ZONING - FLOOR PLAN - LEVEL 3
SCALE: 1/8" = 1'-0"

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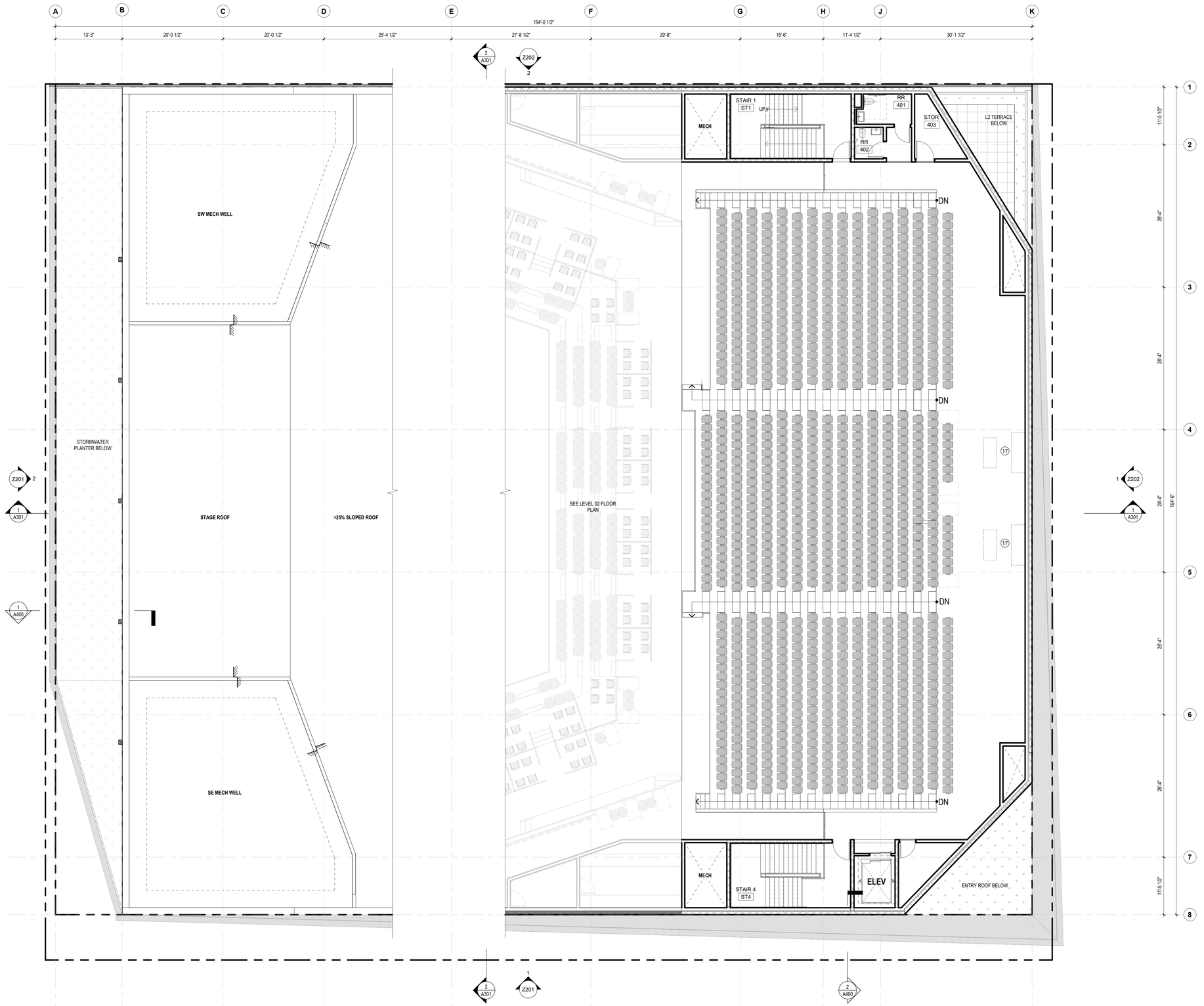

1 Z104 ZONING - FLOOR PLAN - LEVEL 4

SCALE: 1/8" = 1'-0"

PLAN KEYNOTES

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(4 ACCESSIBLE)

OCCUPANTS: 3,800

LEGEND

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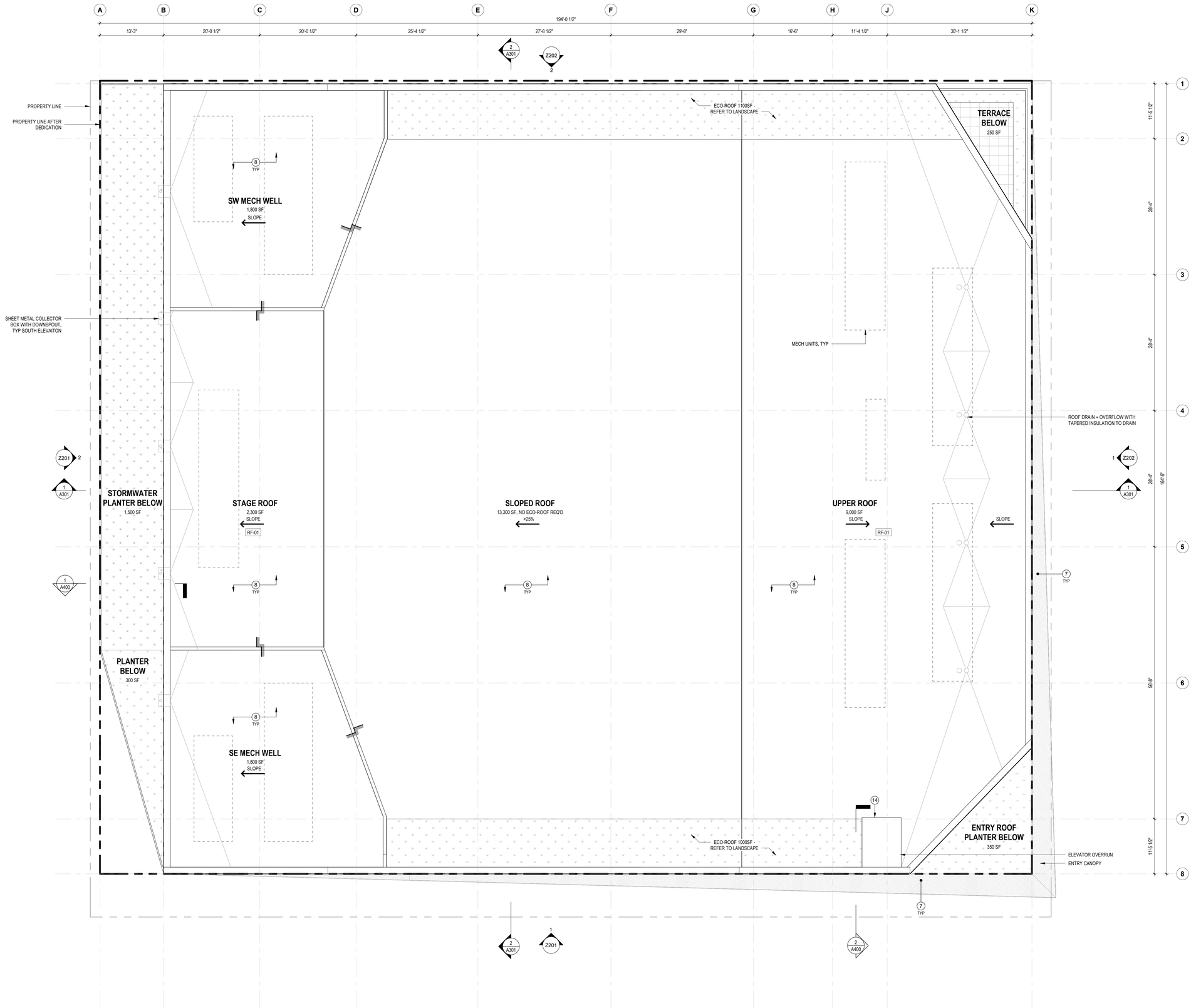
SHEET TITLE
FLOOR PLAN - LEVEL 4

Z104



1 Z105 ZONING - FLOOR PLAN - ROOF
SCALE: 1/8" = 1'-0"

PLAN KEYNOTES

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ECO-ROOF AREA

ROOF AREA WHERE ECO-ROOF IS REQUIRED:
1,800 + 2,300 + 1,800 + 1,8000 + 9,000 + 350 + 250 = 17,300 SF

MECH AREA PROPOSED:
~2,600 SF

40% DEDUCTION ALLOWED FOR MECH & OTHER:
6,920 SF

60% REQUIRED ECO-ROOF:
10,380 SF

ECO-ROOF PROVIDED:
1,100 + 1,000 = 2,100 SF

LEGEND

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FLOOR PLAN - ROOF

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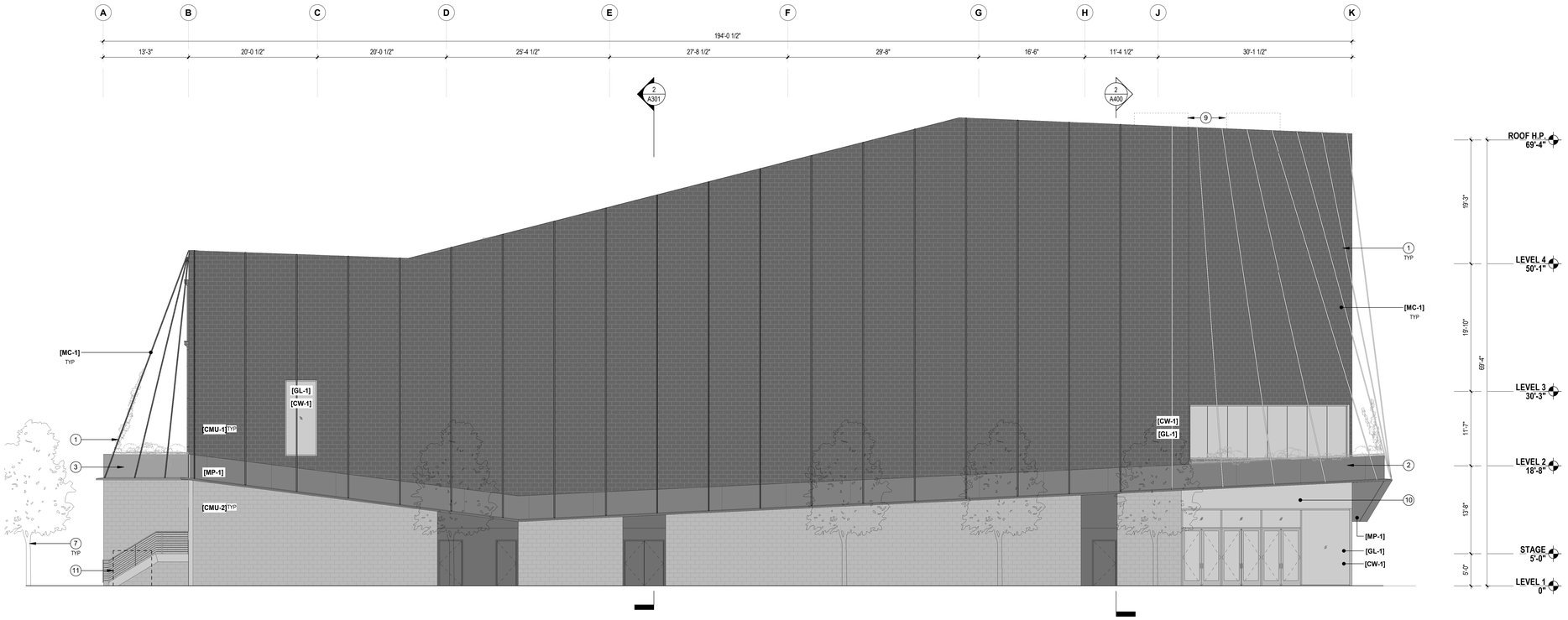

1 Z201 ZONING - EAST BUILDING ELEVATION
SCALE: 1/8" = 1'-0"

2 Z201 ZONING - SOUTH BUILDING ELEVATION
SCALE: 1/8" = 1'-0"

ELEVATION KEYNOTES

1 NON-STRUCTURAL STEEL CLIMBING VINE TRELLIS.
2 CLIMBING VINE PLANTER/ CANOPY. REFER TO WALL SECTION FOR DETAILS.
3 STORMWATER PLANTER.
4 OVERHEAD ROLL-UP DOOR.
5 >25% SLOPED ROOF BEYOND.
6 EXISTING CURB EXTENSION
7 STREET TREE IN TREE WELL.
8 ROOFING MEMBRANE COMPLIANT WITH COOL ROOF REQUIREMENTS.
9 MECHANICAL UNIT BEYOND
10 LED DISPLAY
11 TRANSFORMER
12 SCUPPER & DOWNSPOUT

FINISH + MAT'L LEGEND

[CONC-1] CAST-IN-PLACE CONCRETE

[CMU-1] CONCRETE MANSONRY UNIT
BOD: MUTUAL MAT'LS GROUND FACE 8-8-16 STANDARD IN SABLE

[CMU-2] CONCRETE MANSONRY UNIT - FLUTED FACE WITH CLEAR FINISH
BOD: MUTUAL MAT'LS 8-8-16 7-SCORE BOND BEAM SPLIT FACE

[CW-1] ALUMINUM CURTAIN WALL

[CP-1] PRECAST CONCRETE PAVER

[DP-1] BITUMINOUS DAMPPROOFING

[GL-1] 1" INSULATED GLAZING UNIT

[GR-1] EXTERIOR 42" GUARDRAIL
BOD: STEEL PIPE + CARL STAHL X-TEND CABLE MESH

[GR-2] BALCONY 42" GUARDRAIL
BOD: REFER TO OWNER STANDARD

[HR-1] HANDRAIL

[INSUL-1] BATT INSULATION

[INSUL-2] MINERAL WOOL INSULATION

[INSUL-3] POLYISOCYANURATE INSULATION

[INSUL-4] EXPANDED POLYSTYRENE INSULATION

[INSUL-5] EXTRUDED POLYSTYRENE INSULATION

[INSUL-6] CLOSED CELL SPRAY FOAM INSULATION

[MC-1] STEEL TRELLIS SYSTEM
BOD: CARL STAHL GREEN CABLE HEAVY

[MP-1] COMPOSITE METAL PANEL

[MF-1] SHEET METAL FLASHING

[MR-1] MIRROR

[P-1] PAINT - COLOR 1

[RF-1] 60 MIL SINGLE-PLY PVC ROOF

[RF-2] 2-PLY SBS ROOF ASSEMBLY

[SAM-1] ASPHALTIC FLASHING MEMBRANE

[SAM-2] BUTYL FLASHING MEMBRANE

[SAM-3] HIGH-TEMP FLASHING MEMBRANE

[WOM-1] RECESSED WALK-OFF MAT

[WP-1] BELOW GRADE WATERPROOFING - BENTONITE

[WP-2] BELOW GRADE WATERPROOFING - SHEET MEMBRANE

[WR-1] WATER-REPELLANT COATING

[WR-2] WATER-REPELLANT + GRAFFITI COATING

[VPR-1] INTERIOR VAPOR RETARDER

[VPR-2] ROOF VAPOR RETARDER

[VPR-3] UNDER-SLAB VAPOR RETARDER

STEEL TRELLIS TOTALS

QTY:65
VARIED LENGTHS
LONGEST: 60' - 0" SHORTEST: 36' - 6"

CENTRAL EASTSIDE VENUE

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REVISIONS

PHASE
SCHEMATIC DESIGN

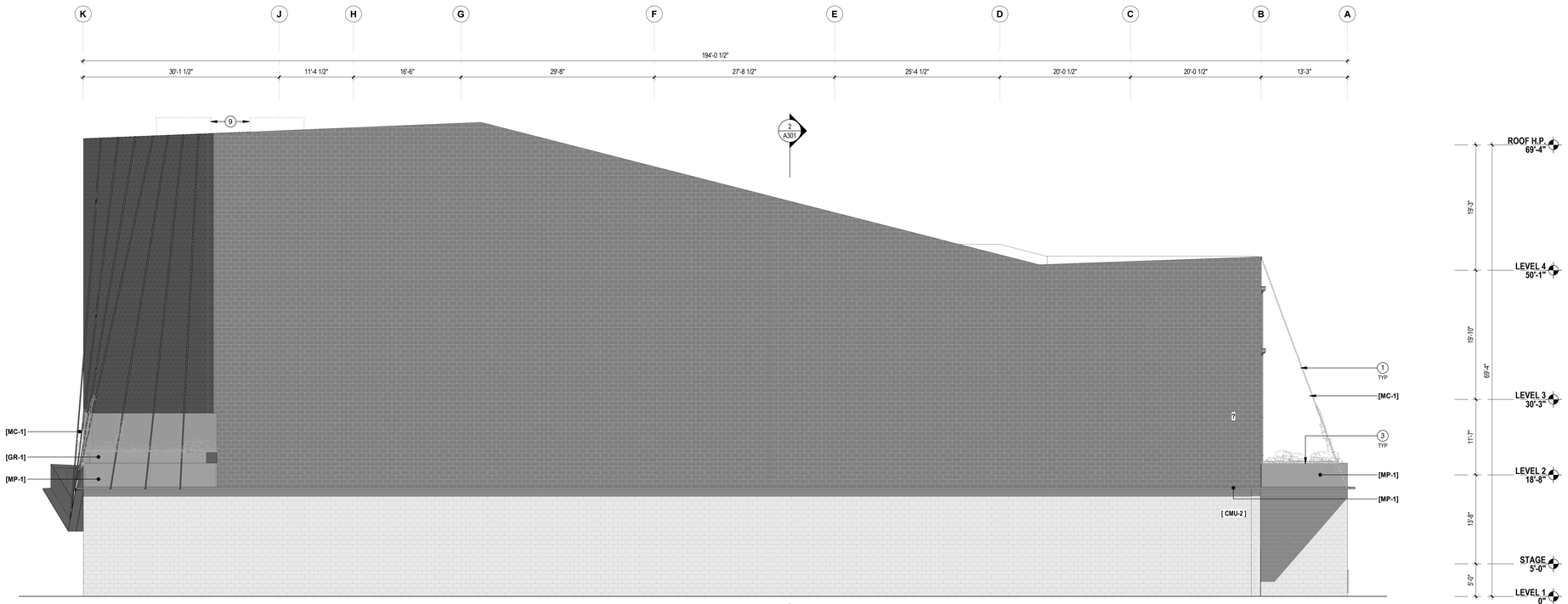
DATE
DECEMBER 21, 2023

PROJECT NUMBER
271

SCALE
As indicated

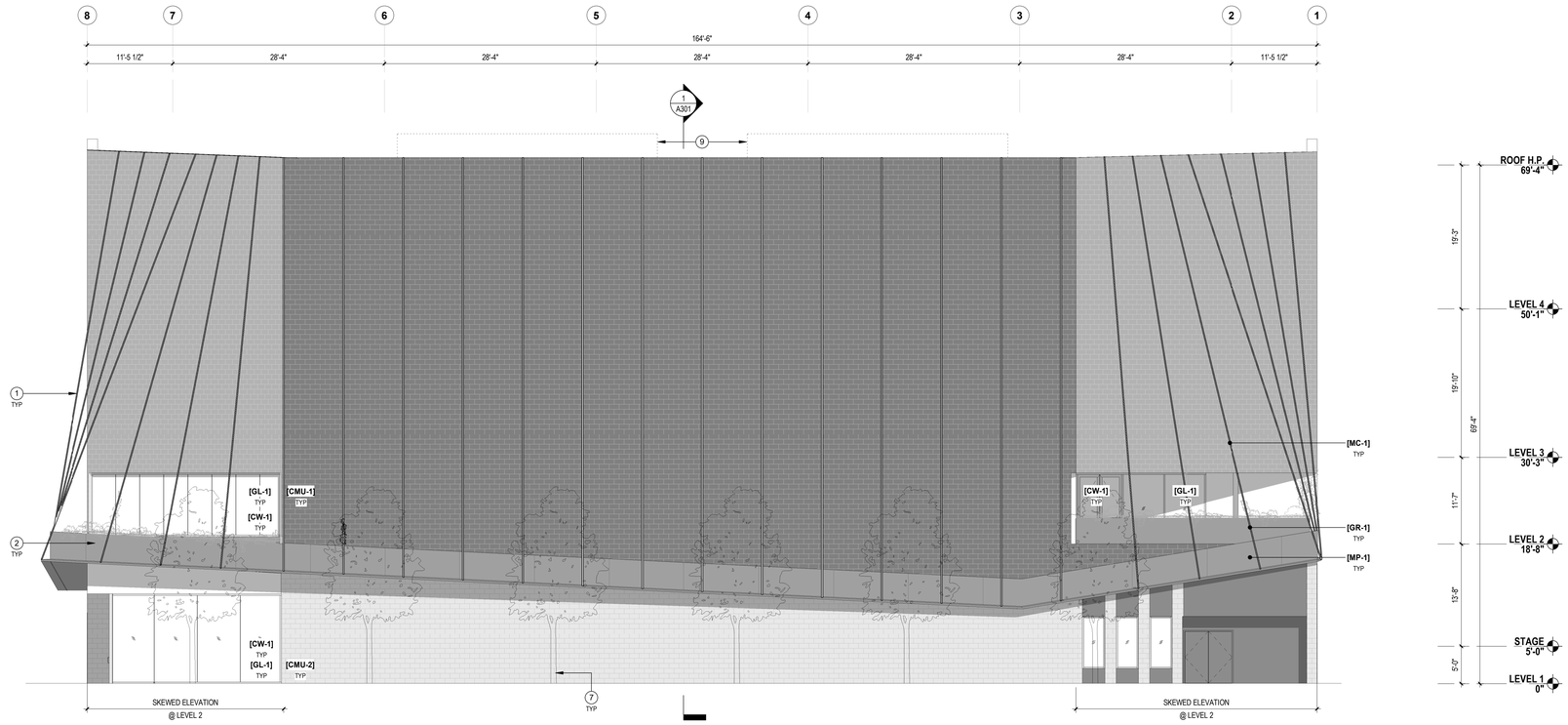
SHEET TITLE
EXTERIOR BUILDING ELEVATIONS - SOUTH & EAST

Z201



2 Z202 ZONING - WEST BUILDING ELEVATION

SCALE: 1/8" = 1'-0"



1 Z202 ZONING - NORTH BUILDING ELEVATION

SCALE: 1/8" = 1'-0"

ELEVATION KEYNOTES

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2 CLIMBING VINE PLANTER/ CANOPY. REFER TO WALL SECTION FOR DETAILS.
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BOD: REFER TO OWNER STANDARD

[HR-1] HANDRAIL

[INSUL-1] BATT INSULATION

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PROJECT NUMBER
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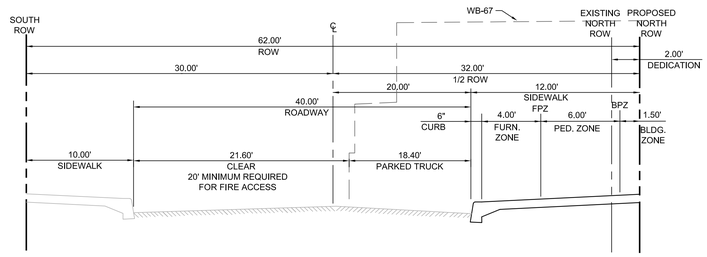
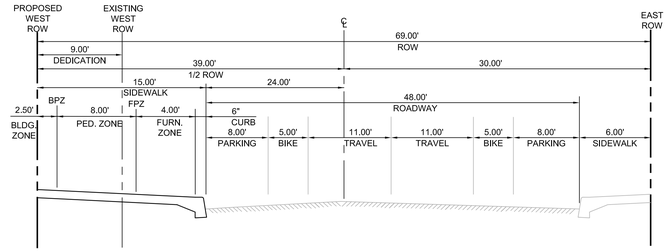
SHEET TITLE
EXTERIOR BUILDING ELEVATIONS - NORTH & WEST

Z202



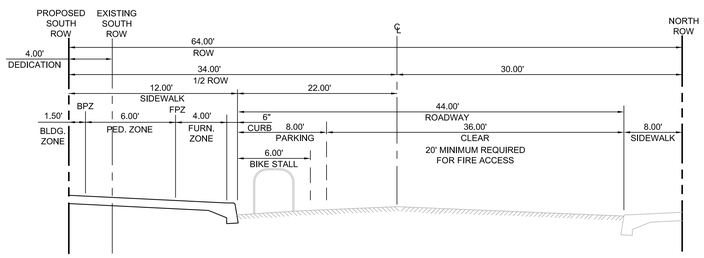
SE MAIN STREET TYPICAL SECTION

NTS



SE WATER AVENUE TYPICAL SECTION

NTS



SE SALMON STREET TYPICAL SECTION

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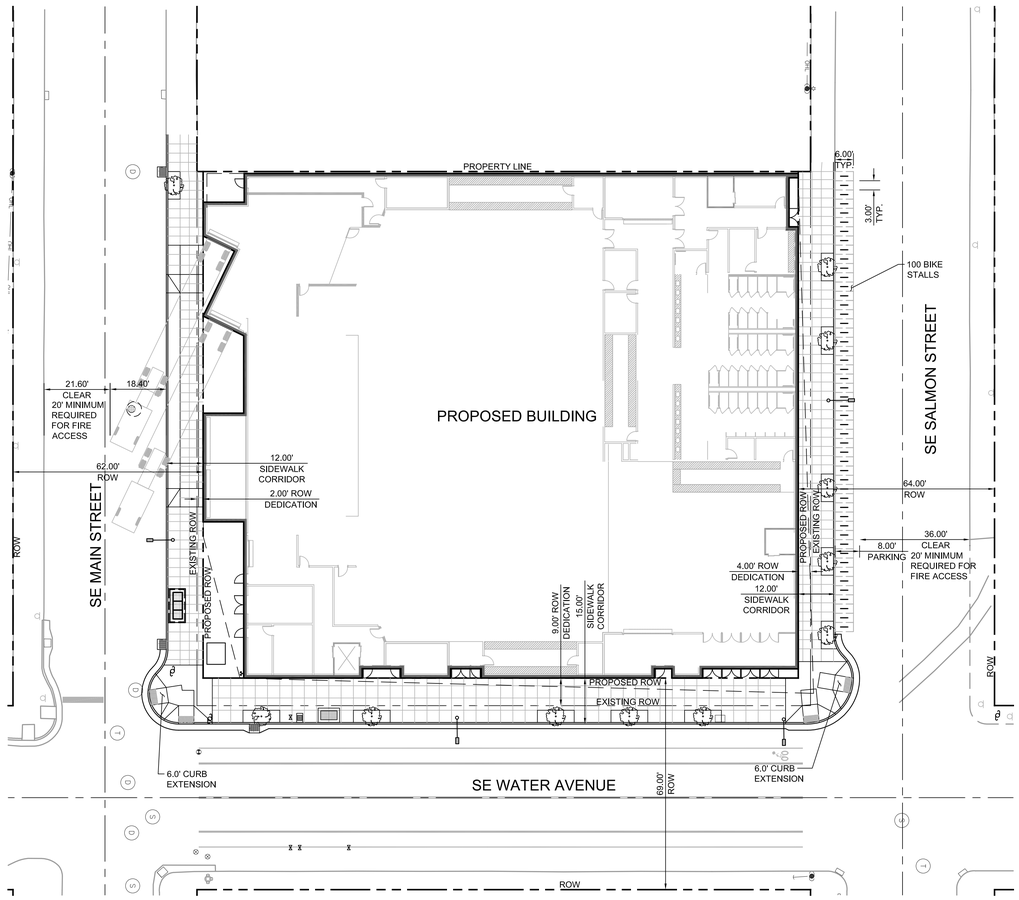
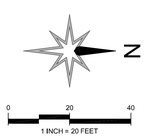


LAYOUT PLAN

SCALE: 1"=20'



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SCHEMATIC DESIGN

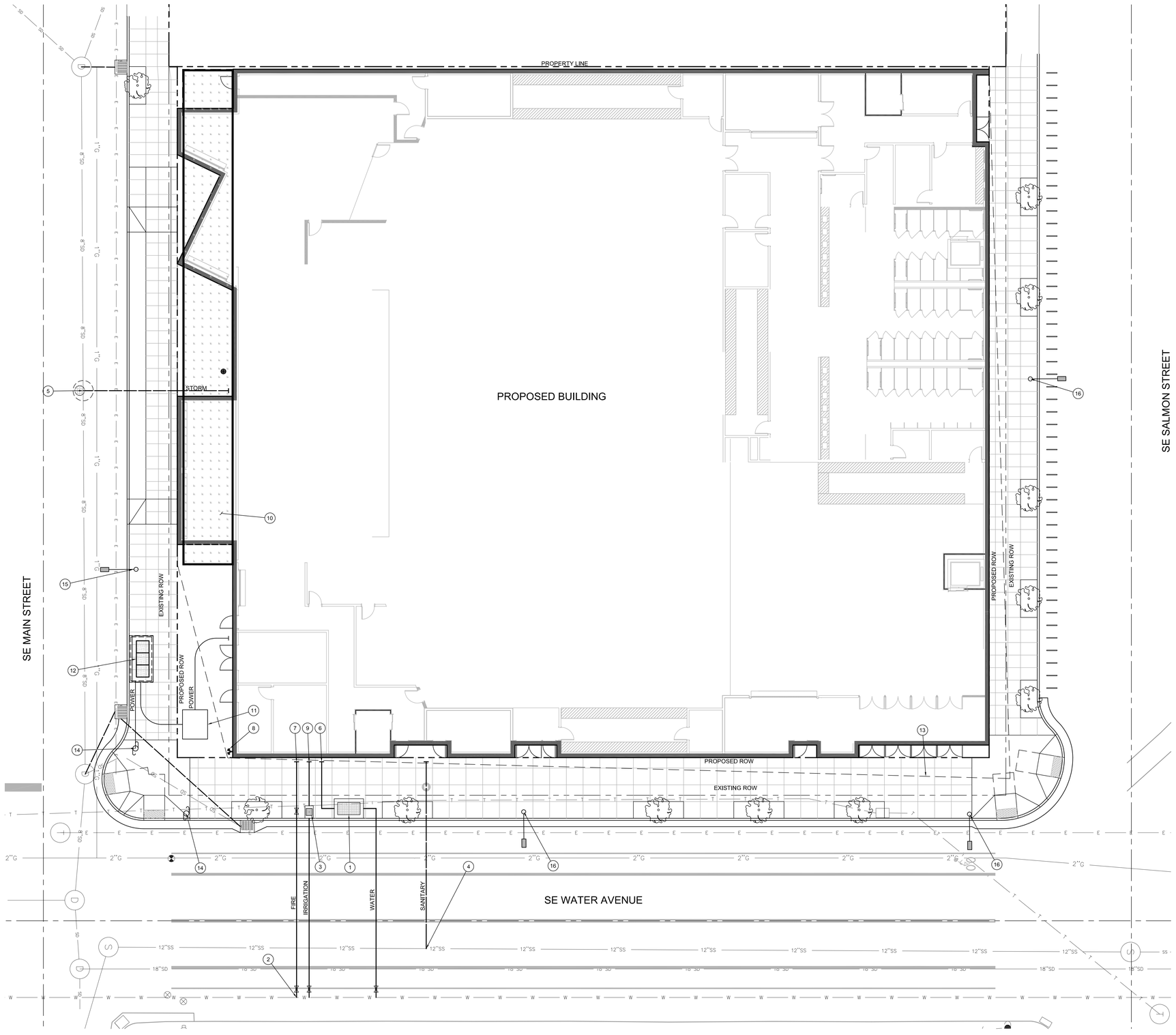
DATE
2023

PROJECT NUMBER
12345

SCALE
As indicated

SHEET TITLE
LAYOUT PLAN

C100



UTILITY PLAN
SCALE: 1"=10'

CONSTRUCTION NOTES

1. NEW WATER METER, BY PORTLAND WATER BUREAU.
2. NEW FIRE LINE, BY PORTLAND WATER BUREAU.
3. NEW IRRIGATION METER, BY PORTLAND WATER BUREAU.
4. NEW SANITARY SEWER CONNECTION TO 12" SANITARY SEWER MAIN.
5. NEW STORM SEWER CONNECTION TO 8" STORM SEWER MAIN.
6. DOMESTIC WATER CONNECTION TO BUILDING. PREMISES-ISOLATION (PI) DCVA TO BE INSTALLED IN BUILDING PER WATER BUREAU REQUIREMENTS.
7. FIRE CONNECTION TO BUILDING. PREMISES-ISOLATION (PI) DCDA TO BE INSTALLED IN BUILDING PER WATER BUREAU REQUIREMENTS.
8. FIRE DEPARTMENT CONNECTION MOUNTED TO BUILDING FACE.
9. IRRIGATION CONNECTION TO BUILDING. PREMISES-ISOLATION (PI) DCVA TO BE INSTALLED IN BUILDING PER WATER BUREAU REQUIREMENTS.
10. 1,387 VEGETATED FLOW-THROUGH PLANTER ON LOWER ROOF.
11. PGE TRANSFORMER VAULT.
12. PGE SWITCH VAULT.
13. ROOF OVERHANG.
14. NEW UTILITY POLE.
15. NEW UTILITY POLE WITH STREET LIGHT.
16. NEW STREET LIGHT.

STORMWATER NARRATIVE

PRIVATE SITE

STORMWATER RUNOFF FROM SITE WILL BE DIRECTED TO THE VEGETATED FLOW-THROUGH STORMWATER PLANTER FOR WATER QUALITY AND FLOW CONTROL BEFORE BEING DISCHARGED TO THE PUBLIC STORM-ONLY SYSTEM IN SE MAIN STREET.

PUBLIC STREET IMPROVEMENTS

STORMWATER MANAGEMENT WILL BE TRIGGERED FOR THE PUBLIC RIGHT OF WAY. THE PROJECT WILL PAY THE STAFF REVIEW SPECIAL CIRCUMSTANCE OFFSITE MANAGEMENT FEE IN LIEU OF BUILDING NEW FACILITIES.

UTILITY CONTACTS

ELECTRICAL
BRYAN HANGARTNER
PORTLAND GENERAL ELECTRIC
BRYAN.HANGARTNER@PGN.COM
(503) 963-6988

BES
EMMA KOHLSMITH
BUREAU OF ENVIRONMENTAL SERVICES
EMMA.KOHLSMITH@PORTLANDOREGON.GOV
(503) 823-8427

WATER
BENJAMIN KERSENS
PORTLAND WATER BUREAU
BEN.KERSONS@PORTLANDOREGON.GOV
(503) 865-6370

N

0 10 20
1 INCH = 10 FEET

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PHASE
SCHEMATIC DESIGN

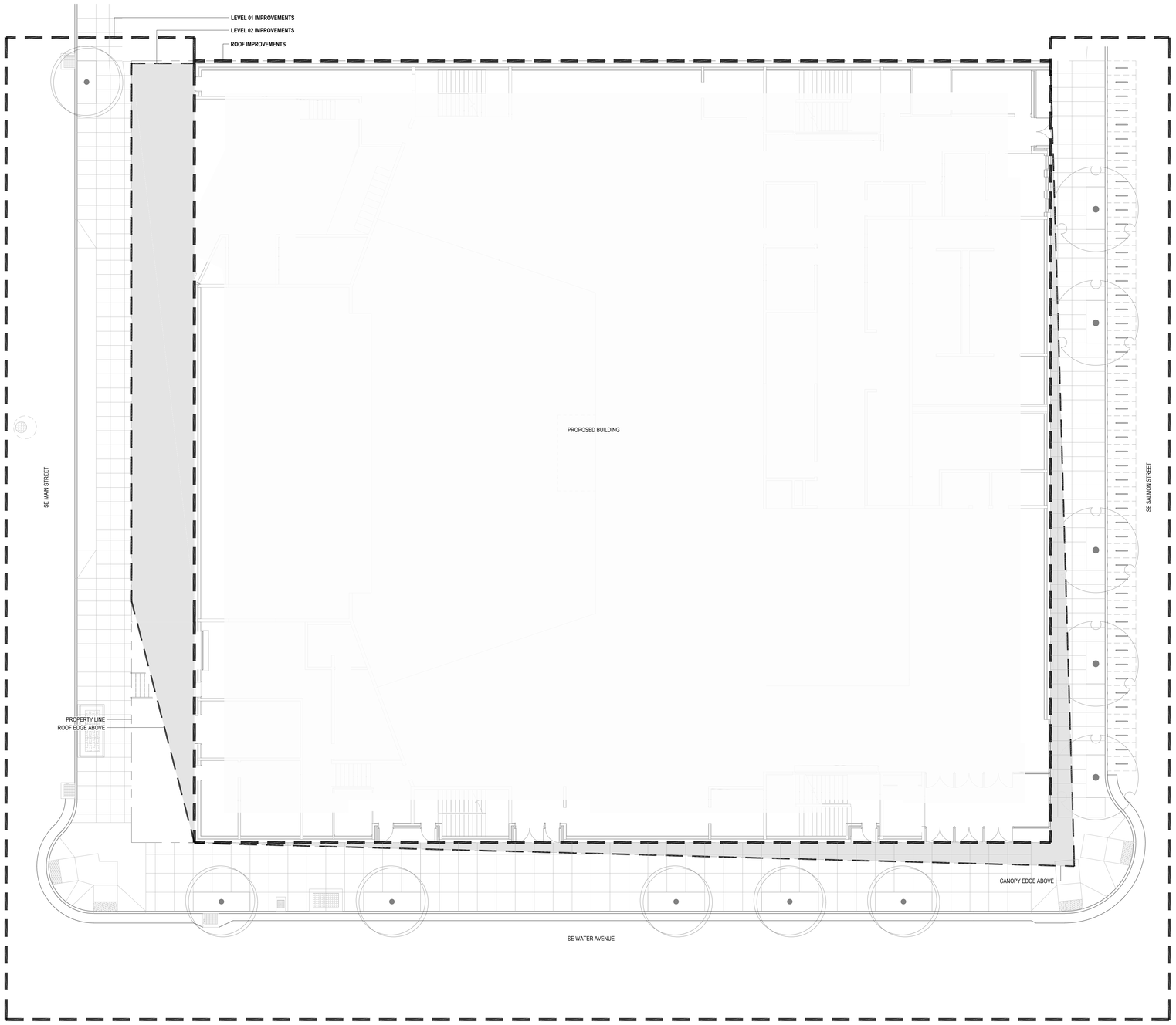
DATE
2023

PROJECT NUMBER
12345

SCALE
As indicated

SHEET TITLE
UTILITY PLAN

C200



LANDSCAPE SHEET INDEX	
SHEET NUMBER	SHEET TITLE
L000	LANDSCAPE SITE KEY PLAN
L201	PLANTING PLAN - LEVEL 01
L202	PLANTING PLAN - LEVEL 02
L205	PLANTING PLAN - ROOF

01 LANDSCAPE SITE KEY PLAN

0 10 20 30 feet

SCALE: 1" = 10'

CENTRAL EASTSIDE VENUE

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PHASE
DESIGN DEVELOPMENT

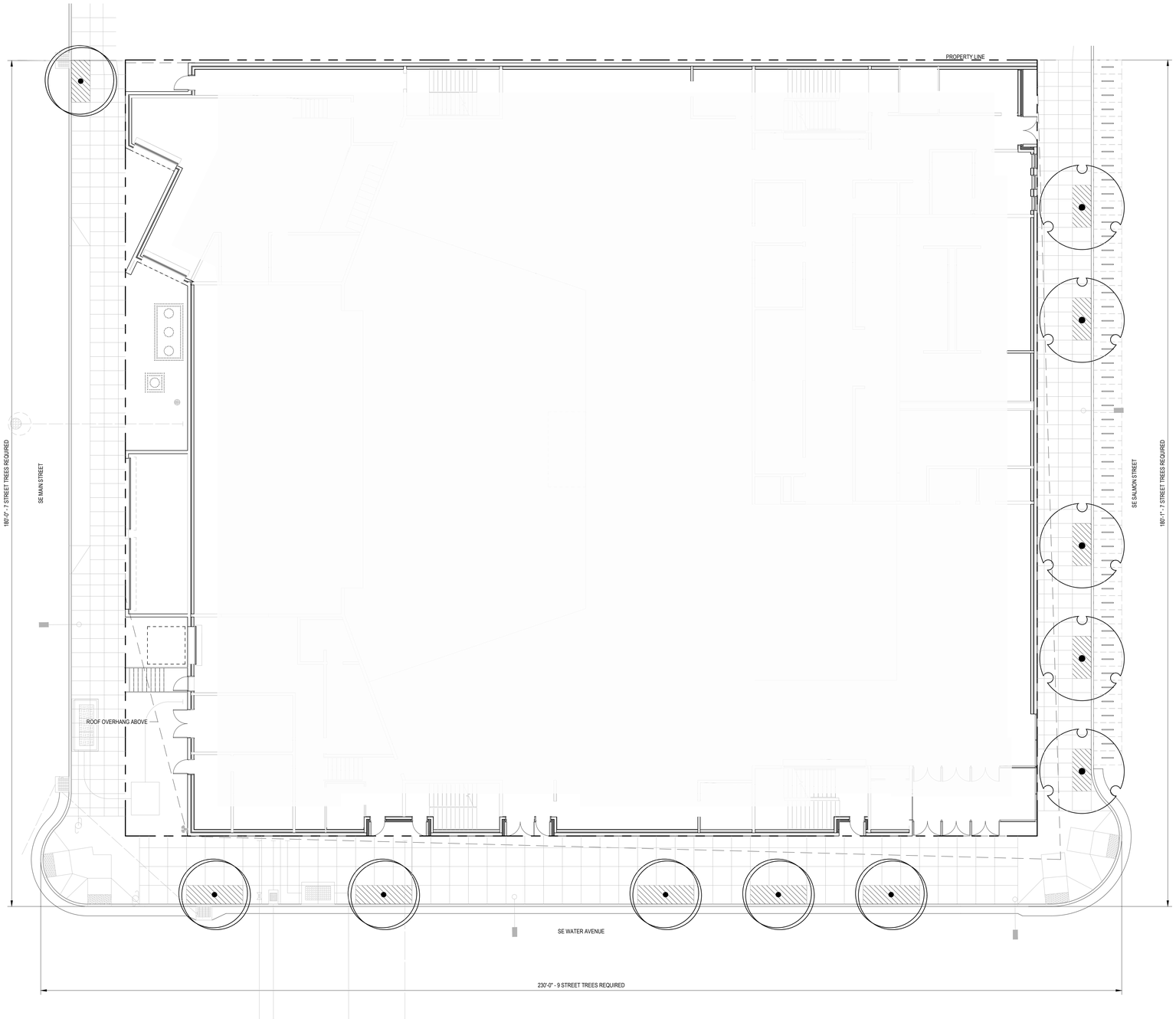
DATE
FEBRUARY 01, 2024

PROJECT NUMBER
271

SCALE
AS INDICATED

SHEET TITLE
LANDSCAPE SITE KEY PLAN

L000



SITE INFORMATION

TOTAL SITE AREA AFTER DEDICATION = 32,040 SF / 0.74 ACRES

BASE ZONING = GENERAL INDUSTRIAL (IG1)

PLAN DISTRICT = CENTRAL CITY (CC) / CENTRAL EASTSIDE

MINIMUM LANDSCAPE REQUIREMENTS

PER 33.140.200 DEVELOPMENT STANDARDS FOR GENERAL INDUSTRIAL 1 (IG1) ZONE, MINIMUM LANDSCAPE AREA REQUIRED = NONE

ON-SITE TREE DENSITY STANDARDS

PER 11.50.050 ON-SITE TREE DENSITY STANDARDS APPLY

FOR INDUSTRIAL DEVELOPMENT TYPE, REQUIRED TREE AREA = 10% OF SITE OR DEVELOPMENT IMPACT AREA
= 0.1 X 32,040 = 3,204 SF

TREE REQUIRED = 3 LARGE TREES (@ 1 LARGE TREE / 1000 SF OF TREE AREA) OR
= 6 MEDIUM TREES (@ 1 MEDIUM TREE / 500 SF OF TREE AREA) OR
= 11 SMALL TREES (@ 1 SMALL TREE / 300 SF OF TREE AREA)

FEE - IN- LIEU SHALL BE PAID FOR 6 MEDIUM TREE

STREET TREE REQUIREMENTS

TOTAL REQUIRED STREET TREES = 23

STREET TREES PROVIDED = 11

FEE-IN-LIEU WILL BE PAID FOR 12 TREES

TREE DIVERSITY CALCULATIONS

TOTAL REQUIRED STREET TREES = 23

NO SINGLE TREE SPECIES PROPOSED > 9 (40% OF TOTAL REQUIRED)

PLANT SCHEDULE - LEVEL 01

RIGHT-OF-WAY PLANTINGS
FULL COVERAGE PLANT MIX
1-GAL TO 3-GAL CONT. SIZE(S)

TREE SCHEDULE - LEVEL 01

SYMBOL	TYPE	DESCRIPTION	SIZE	CAL
TREES				
	TYPE I	SPECIES SHALL BE SELECTED FROM THE CITY OF PORTLAND APPROVED STREET TREE LIST OR A SUPPLEMENTARY FACT SHEET SHALL BE PROVIDED FOR CITY REVIEW AND APPROVAL	B&B	3"- 4" CAL
	TYPE II	SPECIES SHALL BE SELECTED FROM THE CITY OF PORTLAND APPROVED STREET TREE LIST OR A SUPPLEMENTARY FACT SHEET SHALL BE PROVIDED FOR CITY REVIEW AND APPROVAL	B&B	3"- 4" CAL

01 PLANTING PLAN - LEVEL 01

0 10 20 30 feet

SCALE: 1" = 10'

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SCALE
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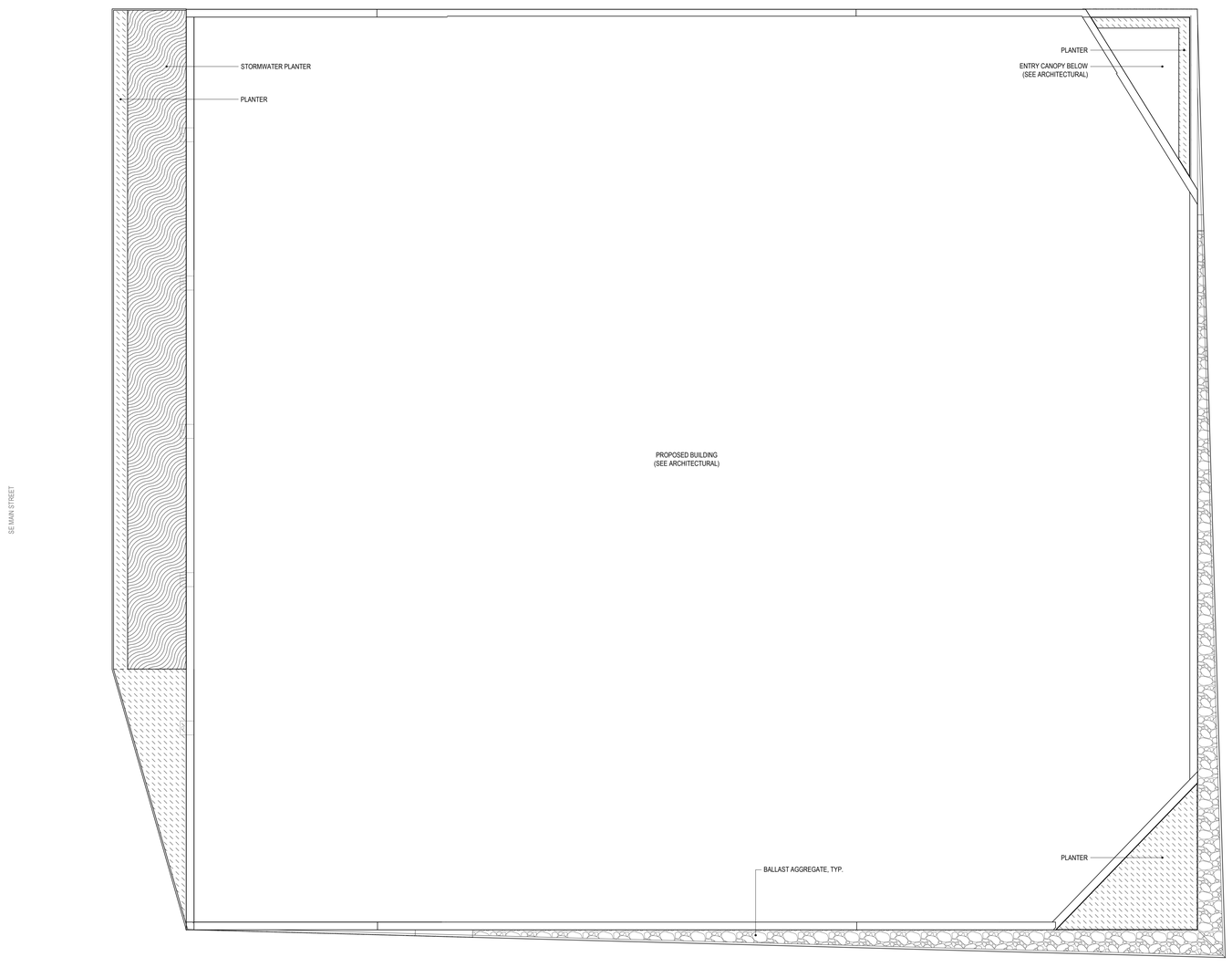
SHEET TITLE
PLANTING PLAN - LEVEL 01

L201



01 PLANTING PLAN - LEVEL 02

0 10 20 30 feet

SCALE: 1" = 10'

PLANTING SCHEDULE - LEVEL 02

STORMWATER PLANTING			
RIBES CEREUM / WAX CURRANT		5 GAL	10% @ 36" oc
	- NW NATIVE		
	- ATTRACTS BIRDS + HUMMING BIRDS + BUTTERFLIES + POLLINATORS		
	- BERRIES ARE FAVORITE AMONG BIRDS		
SALIX PURPUREA 'NANA' / DWARF PURPLE OSIER WILLOW		5 GAL	10% @ 30" oc
	- ATTRACTS BUTTERFLIES + HUMMING BIRDS		
DESCHAMPSIA CESPITOSA / TUFTED HAIR GRASS		1 GAL	15% @ 12" oc
	- NW NATIVE / EVERGREEN		
	- HERBACEOUS		
	- ATTRACTS SONGBIRDS		
JUNCUS EFFUSUS PACIFICUS 'QUARTZ CREEK' / QUARTZ CREEK PACIFIC RUSH		1 GAL	50% @ 12" oc
SEDUM OREGANUM / OREGON SEDUM		1 GAL	5% @ 12" oc
	- NW NATIVE / EVERGREEN		
	- GROUNDCOVER		
	- ATTRACTS BUTTERFLIES + POLLINATORS		
SPIRAEA BETULIFOLIA 'TOR GOLD' / GLOW GIRL® BIRCHLEAF SPIREA		5 GAL	5% @ 30" oc
	- NW NATIVE		
	- ATTRACTS BUTTERFLIES		
	- EROSION CONTROL		
SYMPHYOTRICHUM SUBSPICATUM / DOUGLAS' ASTER		1 GAL	5% @ 12" oc
	- NW NATIVE		
	- HERBACEOUS		
	- ATTRACTS POLLINATORS		
	- SUPPORTS CONSERVATION		
	- BIOLOGICAL CONTROL		

VINE PLANTING AREA			
CAREX DENSA / DENSE SEDGE		1 GAL	10% @ 12" oc
	- NW NATIVE		
	- CATERPILLAR HOST PLANT		
DESCHAMPSIA CESPITOSA / TUFTED HAIR GRASS		1 GAL	10% @ 12" oc
	- NW NATIVE / EVERGREEN		
	- HERBACEOUS		
	- ATTRACTS SONGBIRDS		
HYDRANGEA INTEGRIFOLIA 'TAIPING SHAN' / EVERGREEN CLIMBING HYDRANGEA		1 GAL	20% @ 60" oc
	- ATTRACTS POLLINATORS, BUTTERFLIES, AND HUMMINGBIRDS		
JUNCUS EFFUSUS PACIFICUS 'QUARTZ CREEK' / QUARTZ CREEK PACIFIC RUSH		1 GAL	60% @ 12" oc

NOTES

1. STORMWATER PLANTINGS HAVE BEEN SELECTED FROM THE CITY OF PORTLAND STORMWATER MANUAL AND ARE EXPECTED TO FARE WELL IN THE PROPOSED STORMWATER FACILITY AND CONDITIONS THEY ARE APPROVED FOR.

CENTRAL EASTSIDE VENUE

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PHASE
CONDITIONAL USE

DATE
MARCH, 11 2024

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SCALE
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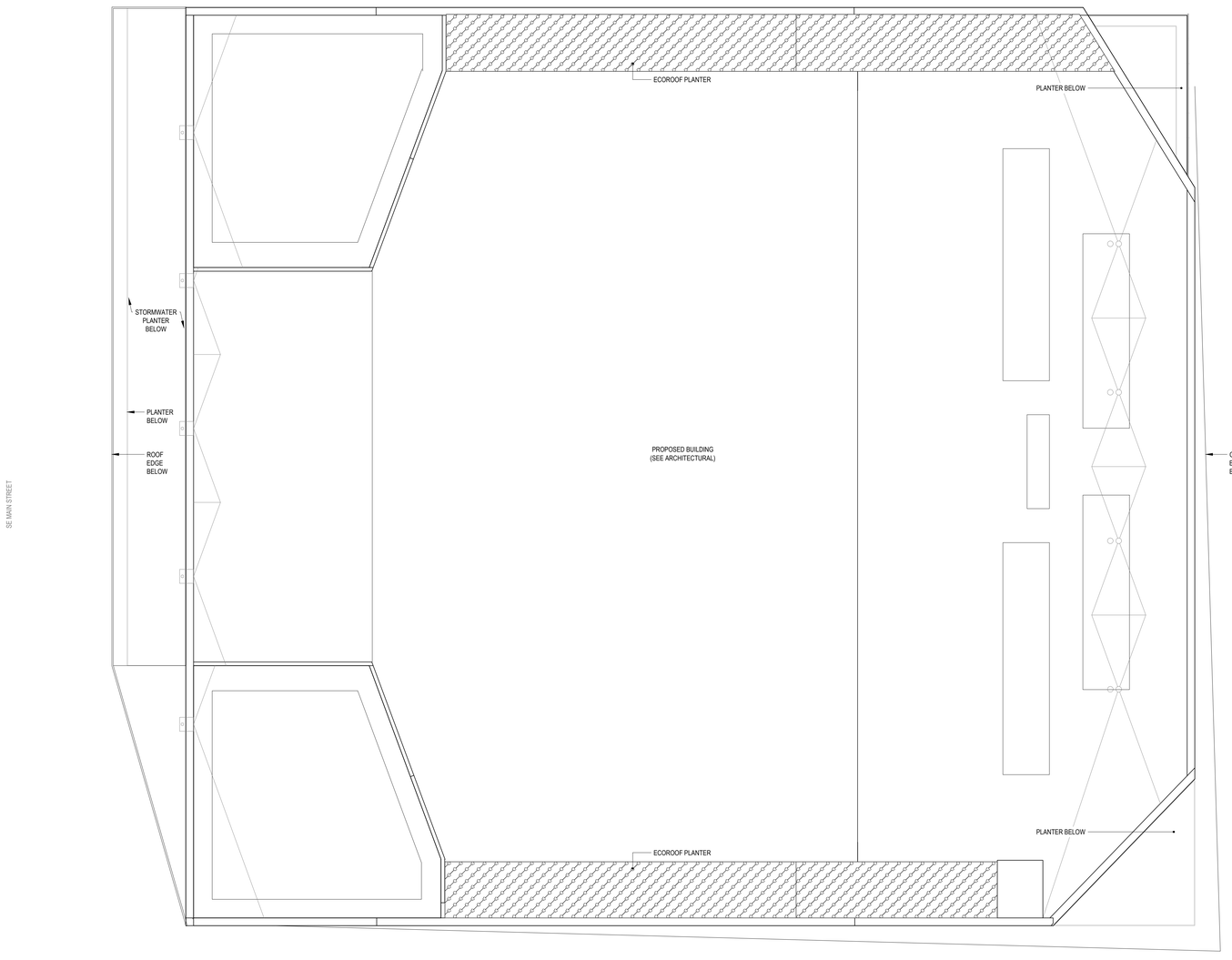
SHEET TITLE
PLANTING PLAN - LEVEL 02

L202



01 PLANTING PLAN - ROOF

0 10 20 30 feet

SCALE: 1" = 10'

PLANT SCHEDULE - ROOF

BASE LAYER			
2' X 2' PREGROWN SEDUM TILES			
ECOROOF SUPPLEMENTARY PLANTING			
ACHILLEA MILLEFOLIUM / COMMON YARROW		1 GAL	25% @ 12" oc
- HERBACEOUS / NW NATIVE			
- SUPPORTS CONSERVATION			
- BIOLOGICAL CONTROL			
- SUPPORTS BEES			
ALLIUM CERNUUM / NODDING ONION		1 GAL	10% @ 6" oc
- HERBACEOUS / NW NATIVE			
- ATTRACTS POLLINATORS + BUTTERFLIES + HUMMINGBIRDS			
FESTUCA IDAHOENSIS / IDAHO FESCUE		1 GAL	25% @ 8" oc
- HERBACEOUS / NW NATIVE			
- EVERGREEN			
- ATTRACTS BUTTERFLIES			
KOELERIA MACRANTHA / PRAIRIE JUNEGRASS		1 GAL	20% @ 12" oc
- HERBACEOUS / NW NATIVE			
- ATTRACTS BIRDS			
POTENTILLA NEPALENSIS / NEPAL CINQUEFOIL		1 GAL	10% @ 18" oc
- HERBACEOUS			
- ATTRACTS BUTTERFLIES			
SEDUM TELEPHIUM / STONECROP		1 GAL	10% @ 18" oc
- SUCCULENT			
- ATTRACTS POLLINATORS + BUTTERFLIES			

NOTES

1. ECOROOF PLANTINGS ARE SELECTED FROM THE CITY OF PORTLAND STORMWATER MANUAL LIST FOR ECOROOFS AND ARE EXPECTED TO FARE WELL IN THE PROPOSED CONDITIONS THEY HAVE BEEN APPROVED FOR.
2. SPECIES HAVE BEEN SELECTED FROM THE APPROVED STORMWATER MANUAL LIST FOR THEIR DIVERSITY AND HEIGHT.
3. GEOCELL TO BE PROVIDED AT ECOROOF FOR EROSION AMELIORATION.

CENTRAL EASTSIDE VENUE

NWC/MAIN & SE WATER AVE
PORTLAND, OR 97214

ARCHITECT

LEVER

4713 N. Albina Avenue,
4th Floor Portland, OR 97217
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1204 SE Water Ave
Portland, Oregon 97214
+1 503 232 0520
www.shapirodidway.com

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REVISIONS

PHASE
CONDITIONAL USE

DATE
MARCH, 11 2024

PROJECT NUMBER
271

SCALE
AS INDICATED

SHEET TITLE
L205 - PLANTING PLAN - ROOF

L205


tonight: incididunt ut labore et dolor
tonight: incididunt ut labore et dolor

Permit Stormwater Report

Music Venue LN

NWC/ Main & SE Water Ave
Portland, OR 97214

Date:
December 15th, 2023
Revised:
May 22nd, 2024

Applicant:
Beam Development
1001 SE Water Ave, Suite 400
Portland, OR 97214

Associated Permit Numbers:
2022-128857-000-00-EA

Engineer of Record:
Martha Williamson, PE
Vega Civil Engineering, LLC
1300 SE Stark St #201
Portland, OR 97214
martha@vegacivil.com
(503)662-1901

I hereby certify that this Stormwater Management Report for Music Venue LN has been prepared by me or under my supervision and meets minimum standards of the City of Portland and normal standards of engineering practice. I hereby acknowledge that the jurisdiction does not and will not assume liability for the sufficiency, suitability, or performance of drainage facilities designed by me.

Table of Contents

Appendices

Project Overview and Description

Location	NWC/ Main & SE Water Ave
Site Area	32,040 SF
Vicinity Map	
Zoning	IG1 – General Industrial 1
Development Type	Commercial
Watershed	Willamette River – Oak/Alder/Division
Existing Conditions	The existing site includes a gravel parking lot.
Development Description	Construction of a new 4-story event venue.

Methodology

Existing Drainage	The existing site drains north to south and enters the public storm only sewer system in SE Salmon Street.
Infiltration Testing Results	Site contains known contaminated soils, so infiltration testing was not required.
Stormwater Hierarchy Justification	Infiltration is not possible on this site, and there is a storm-only sewer in SE Main Street; therefore, the project falls under Category 2 of the Stormwater Hierarchy, and runoff will be managed with a flow-through planter that will discharge to the storm-only sewer main in SE Main Street.
Proposed Stormwater Management System	Stormwater will be managed for water quality and quantity via vegetated flow-through stormwater planter. The flow-through stormwater planter is located on the lower southern roof. The upper

roof which is sloped to convey water to the south which will drain to the planter on the lower roof. The partial eco-roof will also be draining into the flow-through stormwater planter. We're not using the eco-roof to meet stormwater management requirements.

Analysis

Relevant Design Storms	WQ – 1.61 inches 2yr – 2.4 inches 5yr – 2.9 inches 10yr – 3.4 inches
Computation Methods & Software	Presumptive Approach Calculator was used for sizing the stormwater facility.
Safety Factors	A safety factor of 2 was used for the tested infiltration rate.
Curve Numbers	A CN of 98 was used for all newly constructed impervious areas. The pre-developed condition was defined as a CN of 81 based on soil type.
Time of Concentration	5 min.
Escape Route or Inundation Level for 24-hour 100-yr event	Overflow from the 100-year storm event will be safely conveyed to the public system in SE Main Street.

Table 1 – Catchment and Facility Summary

Catchment or Facility ID	Impervious Area Type	Area (sf)	Ownership (private/public)	Facility Type	Facility Size – bottom area (sf)
Catchment A	Roof	32,040	Private	FTP	1387
Total Site Area		**32,040**			

Table 2 – Flow Rates

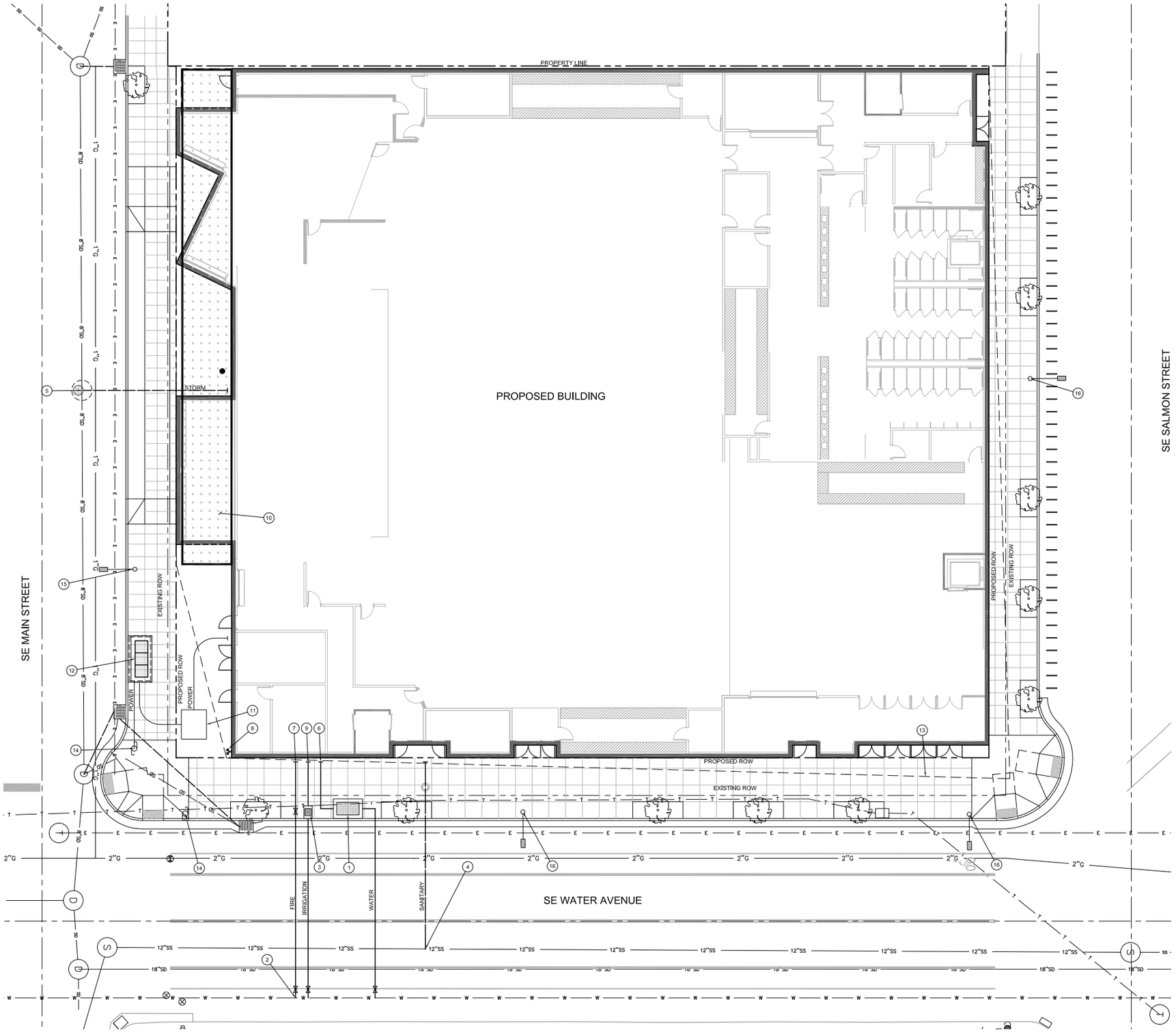
	2-year storm	5-Year Storm	10-Year Storm
Pre-developed	0.1388 cfs	0.2132 cfs	0.2956 cfs
Post-developed	0.1276 cfs	0.1293 cfs	0.2002 cfs

Engineering Conclusions

Water Quality	The proposed development will meet the requirements for water quality per the 2020 City of Portland Stormwater Management Manual
Water Quantity	The proposed development will meet the requirements for water quality per the 2020 City of Portland Stormwater Management Manual
Upstream / Downstream Impacts	The proposed development will not have an impact on upstream or downstream systems.

Appendix A - Stormwater Facility Details / Exhibits

Utility Plan
Catchment Map
Stormwater Planter Detail



UTILITY PLAN
SCALE: 1"=10'

CONSTRUCTION NOTES

1. NEW WATER METER, BY PORTLAND WATER BUREAU.
2. NEW FIRE LINE, BY PORTLAND WATER BUREAU.
3. NEW IRRIGATION METER, BY PORTLAND WATER BUREAU.
4. NEW SANITARY SEWER CONNECTION TO 12" SANITARY SEWER MAIN.
5. NEW STORM SEWER CONNECTION TO 8" STORM SEWER MAIN.
6. DOMESTIC WATER CONNECTION TO BUILDING. PREMISES-ISOLATION (PI) DCVA TO BE INSTALLED IN BUILDING PER WATER BUREAU REQUIREMENTS.
7. FIRE CONNECTION TO BUILDING. PREMISES-ISOLATION (PI) DCDA TO BE INSTALLED IN BUILDING PER WATER BUREAU REQUIREMENTS.
8. FIRE DEPARTMENT CONNECTION MOUNTED TO BUILDING FACE.
9. IRRIGATION CONNECTION TO BUILDING. PREMISES-ISOLATION (PI) DCVA TO BE INSTALLED IN BUILDING PER WATER BUREAU REQUIREMENTS.
10. 1,387 VEGETATED FLOW-THROUGH PLANTER ON LOWER ROOF.
11. PGE TRANSFORMER VAULT.
12. PGE SWITCH VAULT.
13. ROOF OVERHANG.
14. NEW UTILITY POLE.
15. NEW UTILITY POLE WITH STREET LIGHT.
16. NEW STREET LIGHT.

STORMWATER NARRATIVE

PRIVATE SITE

STORMWATER RUNOFF FROM SITE WILL BE DIRECTED TO THE VEGETATED FLOW-THROUGH STORMWATER PLANTER FOR WATER QUALITY AND FLOW CONTROL BEFORE BEING DISCHARGED TO THE PUBLIC STORM-ONLY SYSTEM IN SE MAIN STREET.

PUBLIC STREET IMPROVEMENTS

STORMWATER MANAGEMENT WILL BE TRIGGERED FOR THE PUBLIC RIGHT OF WAY. THE PROJECT WILL PAY THE STAFF REVIEW SPECIAL CIRCUMSTANCE OFFSITE MANAGEMENT FEE IN LIEU OF BUILDING NEW FACILITIES.

UTILITY CONTACTS

ELECTRICAL
BRYAN HANGARTNER
PORTLAND GENERAL ELECTRIC
BRYAN.HANGARTNER@PGN.COM
(503) 963-6988

BES
EMMA KOHLSMITH
BUREAU OF ENVIRONMENTAL SERVICES
EMMA.KOHLSMITH@PORTLANDOREGON.GOV
(503) 823-8427

WATER
BENJAMIN KERSENS
PORTLAND WATER BUREAU
BEN.KERSONS@PORTLANDOREGON.GOV
(503) 865-6370

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VEGA
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PHASE
SCHEMATIC DESIGN

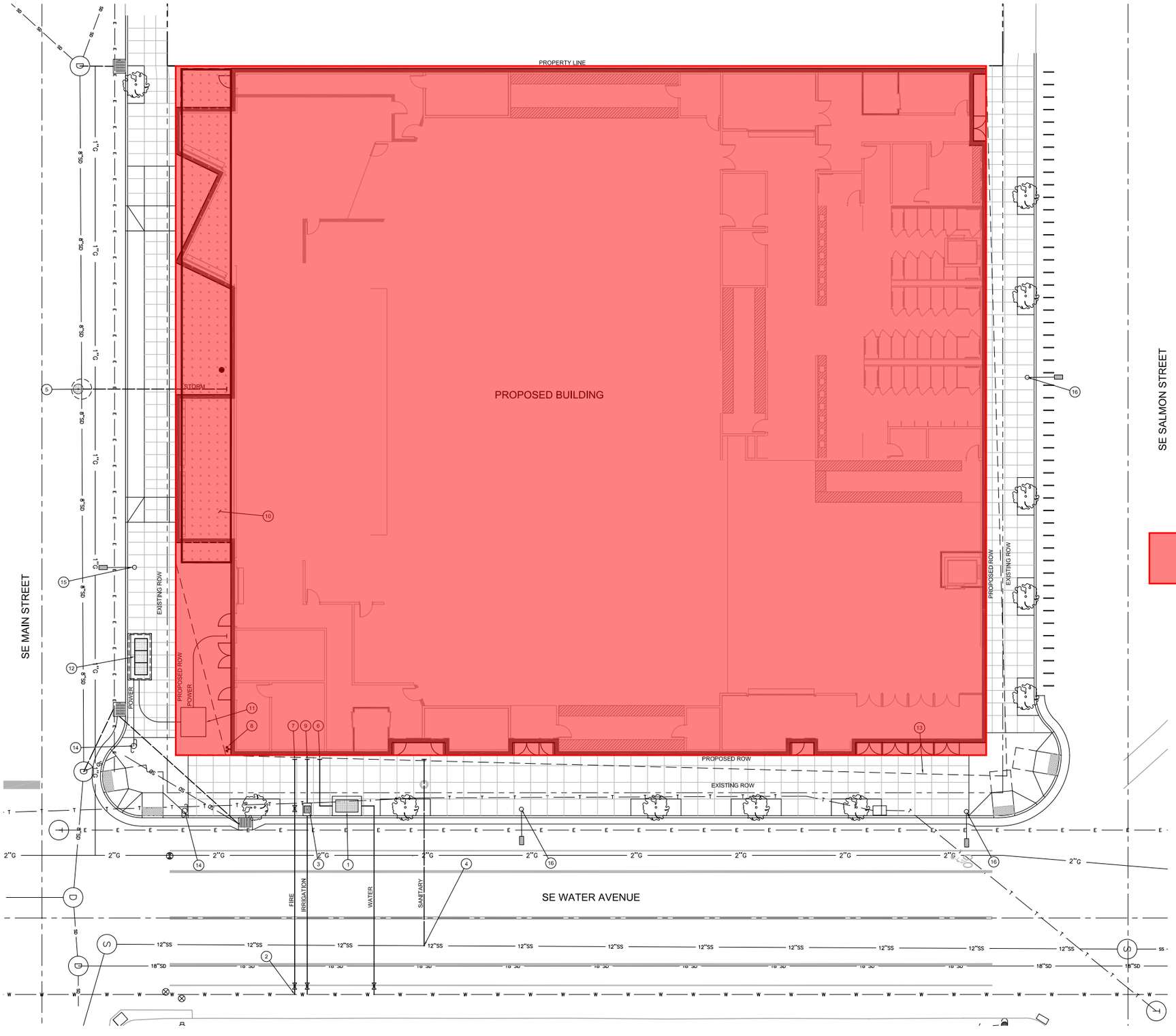
DATE
2023

PROJECT NUMBER
12345

SCALE
As indicated

SHEET TITLE
UTILITY PLAN

C200



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DATE
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PROJECT NUMBER
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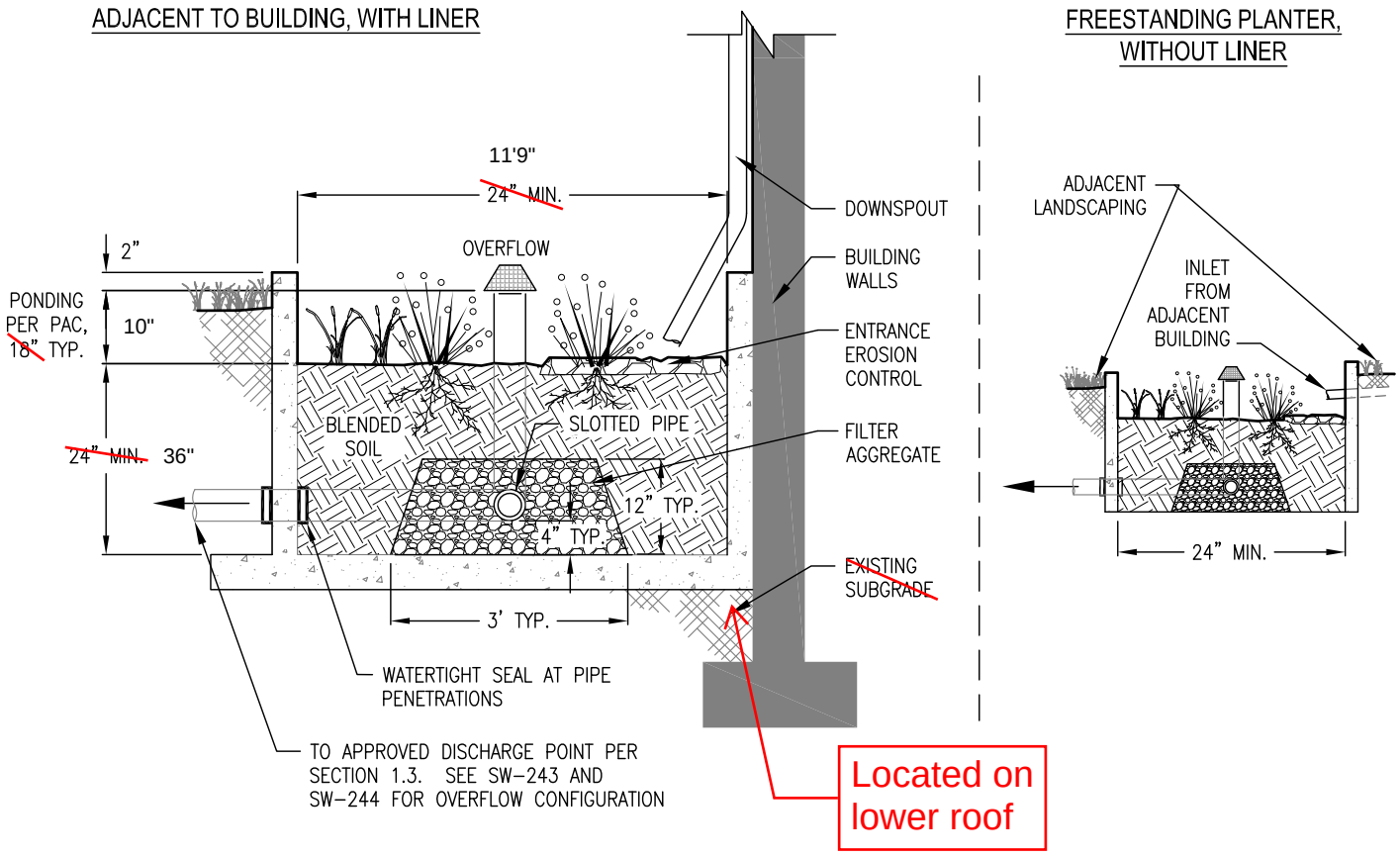
SHEET TITLE
UTILITY PLAN

C200



1. Detail intended as an example. Detail must match PAC assumptions and/or design report.
2. Setbacks: No setback is required for lined planters. For infiltration planters the setbacks are 5' from property lines except next to right-of-way, and 10' from building foundations. The planter wall height must be less than 30" above finished grade if within 5' of property line.
3. Planter Structure: A single pour, monolithic concrete shell without cold joints is required unless otherwise approved.
4. Waterproofing: No additional waterproofing is needed if the structure is a single pour, monolithic concrete shell.
5. Blended Soil: Use BES standard soil blend for stormwater facilities (SWMM Section 6.3) unless otherwise approved. Install minimum of 24" of blended soil.
6. Underdrain System: Sizing is per the PAC. The underdrain must be 4" slotted schedule 40 PVC well casing pipe manufactured with .050" slots, 6 slots per row. Embed the underdrain in $\frac{1}{4}$" No.10 washed angular aggregate. See SW-243 for longitudinal section and SW-244 for orifice examples. Conform with Oregon Plumbing Specialty Code (OPSC) requirements. Alternative configurations and materials such as cellular storage systems, drainage mats, and non-standard aggregates may be used under the Performance Approach, with BES approval.
7. Overflow: Overflow elevation must allow for 2" of freeboard, minimum. Protect from debris and sediment with strainer or grate.
8. Vegetation: Refer to plant list in SWMM Section 3.5. Minimum container size is 1 gal. Number of plantings per 100sf of facility area: 80 herbaceous plants OR 72 herbaceous plants and 4 small shrubs.
9. Entrance Erosion Control: Install river rock, flagstone, or similar to dissipate the energy of incoming water at entrances and ends of downspout extensions.
10. Check Dams: Spacing per the PAC. Check dam length must equal the full width of the planter.
11. Inspections: Call BDS IVR Inspection Line, (503) 823-7000, request 487. 3 inspections required.

CONSTRUCTION REQUIREMENTS

Do not allow temporary storage of construction waste or materials in the facilities. Do not allow entry of runoff or sediment during construction.

– DRAWING NOT TO SCALE –

Bureau of Environmental Services

STORMWATER MANAGEMENT TYPICAL DETAILS FOR PRIVATE PROPERTY

PLANTER WITH UNDERDRAIN

SW–231

9–8–20

PRESUMPTIVE AND PERFORMANCE DESIGN APPROACH

Appendix B - Calculations

Presumptive Approach Calculations

PAC Report

Project Details

Project Name	Permit No	Created
The venue		9/26/2023 3:25:04 PM
Project Address	**Designer**	**Last Modified**
SE Main & Water Ave		12/8/2023 9:21:35 PM
	Company	**Report Generated**
		12/11/2023 8:39:59 AM

Project Summary

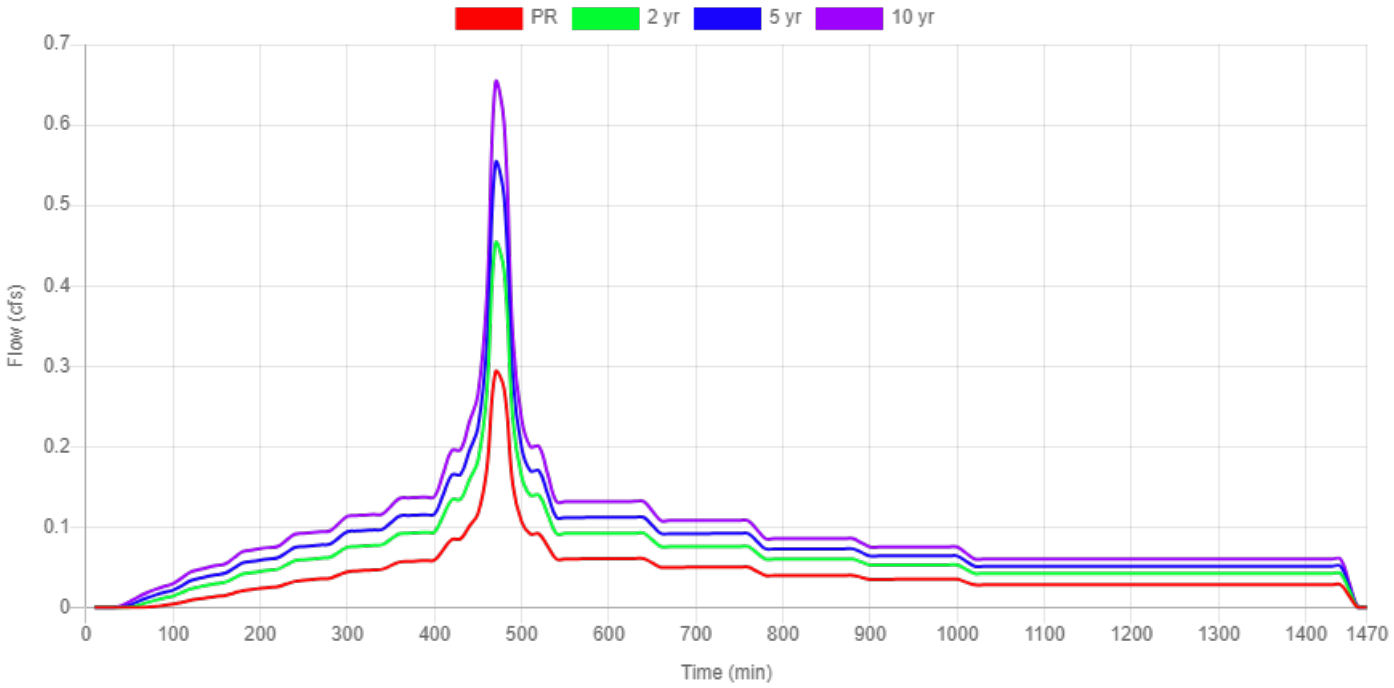
Catchment Name	Imper-vious Area (sq ft)	Native Soil Design Infilt-ration Rate (in/hr)	Level	Category	Config	Facility Area (excl. free board) (sq ft)	Facility Sizing Ratio (%)	PR Results	Infilt-ration Results	Flow Control Results
Site	32040	0	2C	FlatPlanter	D	1387.00	4.33	Pass	NA	Pass

Site

Site Soils & Infiltration Testing	Infiltration Testing Procedure NA Tested Native Soil Infiltration Rate 0 in/hr
Correction Factor	CF test 2
Design Infiltration Rates	Native Soil 0 in/hr Imported Blended Soil 6 in/hr
Catchment Information	Hierarchy Level 2C Hierarchy Description Base requirement for all other discharge points Pollution Reduction Requirement Filter the post-development stormwater runoff from the water quality storm event through the blended soil. Infiltration Requirement N/A Flow Control Requirement Limit the 2-yr, the 5-yr, and the 10-yr post-development peak flows to their respective pre-development peak flows. Impervious Area 32040 sq ft 0.736 acre Pre-Development Time of Concentration (Tc pre) 5 min Post-Development Time of Concentration (Tc post) 5 min Pre-Development Curve Number (CN pre) 81 Post-Development Curve Number (CN post) 98

SBUH Results

Post-Development Runoff



	Pre - Development Rate and Volume		Post - Development Rate and Volume	
	Peak Rate (cfs)	**Total Volume (cf)**	**Peak Rate (cfs)**	**Total Volume (cf)**
PR	0.0403	996.7	0.2927	3707.5
2-Year	0.1388	2327.7	0.4524	5797.5
5-Year	0.2132	3303.1	0.5525	7125.4
10-Year	0.2956	4346.6	0.6521	8455.3

	Overflow		Underdrain Outflow		Infiltration	
	Peak Rate (cfs)	**Total Volume (cf)**	**Peak Rate (cfs)**	**Total Volume (cf)**	**Peak Rate (cfs)**	**Total Volume (cf)**
PR	0	0	0.137	3655.1	0	0
2-Year	0	0	0.128	5745	0	0
5-Year	0	0	0.129	7073	0	0
10-Year	0.075	193.2	0.125	8209.7	0	0

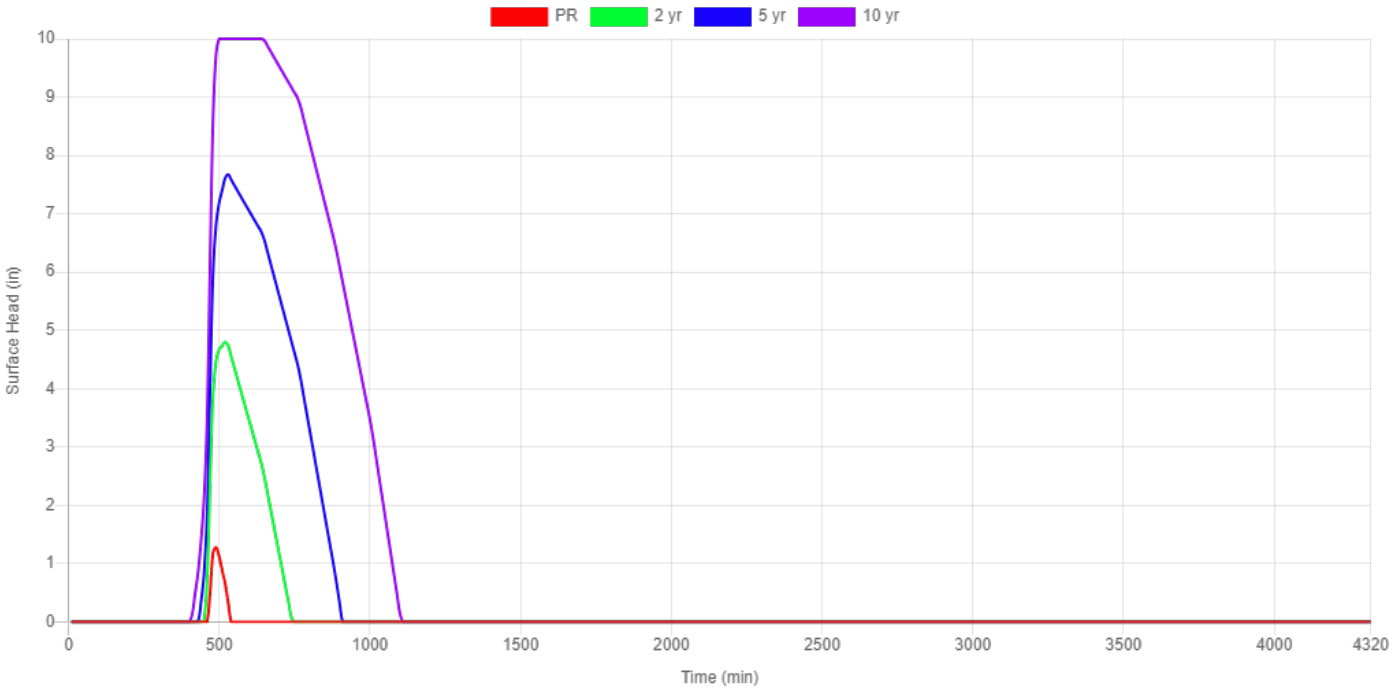
Flat Planter

Site Soils & Infiltration Testing	Category Flat Planter Shape Null Location Parcel Configuration D: Lined Facility with RS and Ud **Above Grade Storage Data** Bottom Area 1387 sq ft Bottom Width 11.50 ft Overflow Height 10.0 in Total Depth of Blended Soil plus Rock 36 in Surface Storage Capacity at Overflow 1155.83 cu ft Design Infiltration Rate to Soil Underlying the Facility 0.000 cfs Design Infiltration Rate for Imported Blended Soil in the Facility 0.193 cfs **Below Grade Storage Data** Catchment is too small for flow control? No Rock Area 93.59 sq ft Rock Width 3.00 ft Rock Storage Depth 12.0 in Rock Porosity 0.3 Underdrain Height

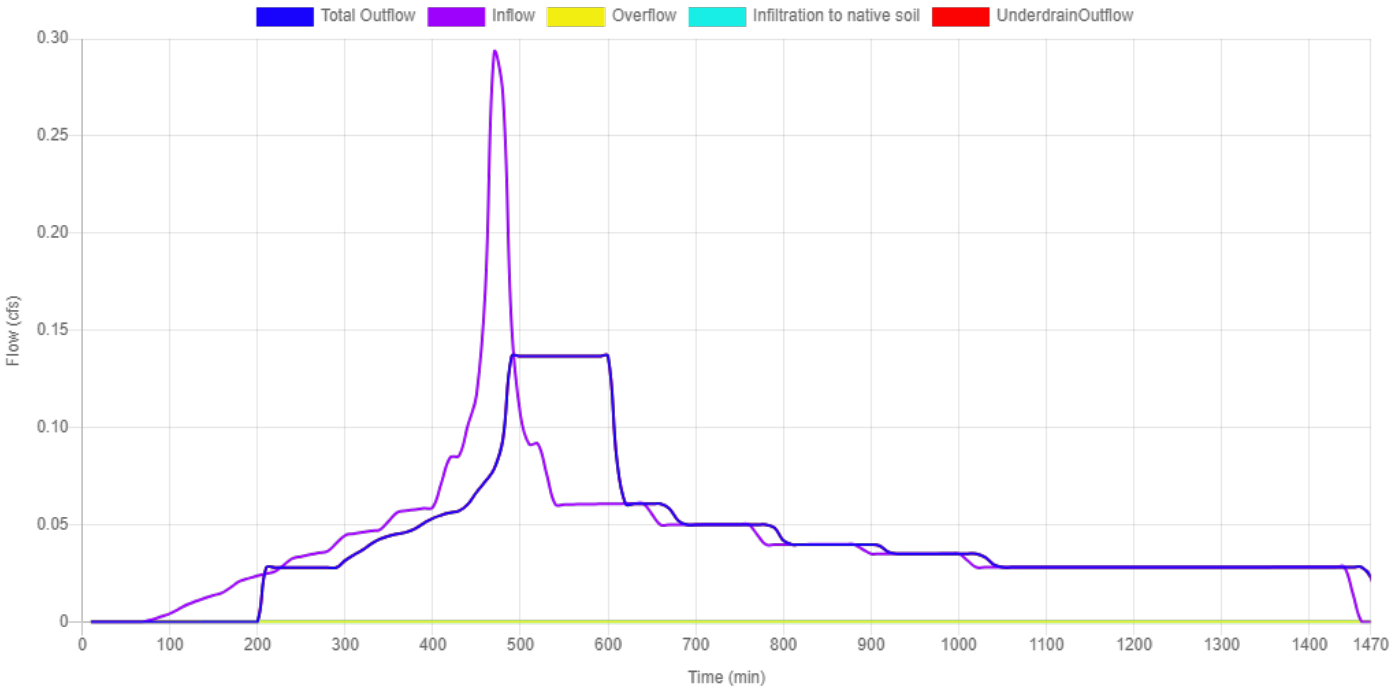
	4 in Percent of Facility Base that Allows Infiltration 0 % Orifice (Y/N)? Yes Orifice Diameter 2.000 in
Facility Facts	Total Facility Area (excluding freeboard) 1387.00 sq ft Sizing Ratio 4.33 %
Pollution Reduction Results	Pollution Reduction Score Pass Overflow Volume 0.00 cf Surface Capacity Used 12.74 %
Flow Control Results	Flow Control Score Pass

	STORMWATER FACILITY OUTFLOW (CFS)		PRE-DEVELOPMENT RUNOFF (CFS)
2 year	0.1276	<=	0.1388
5 year	0.1293	<=	0.2132
10 year	0.2002	<=	0.2956

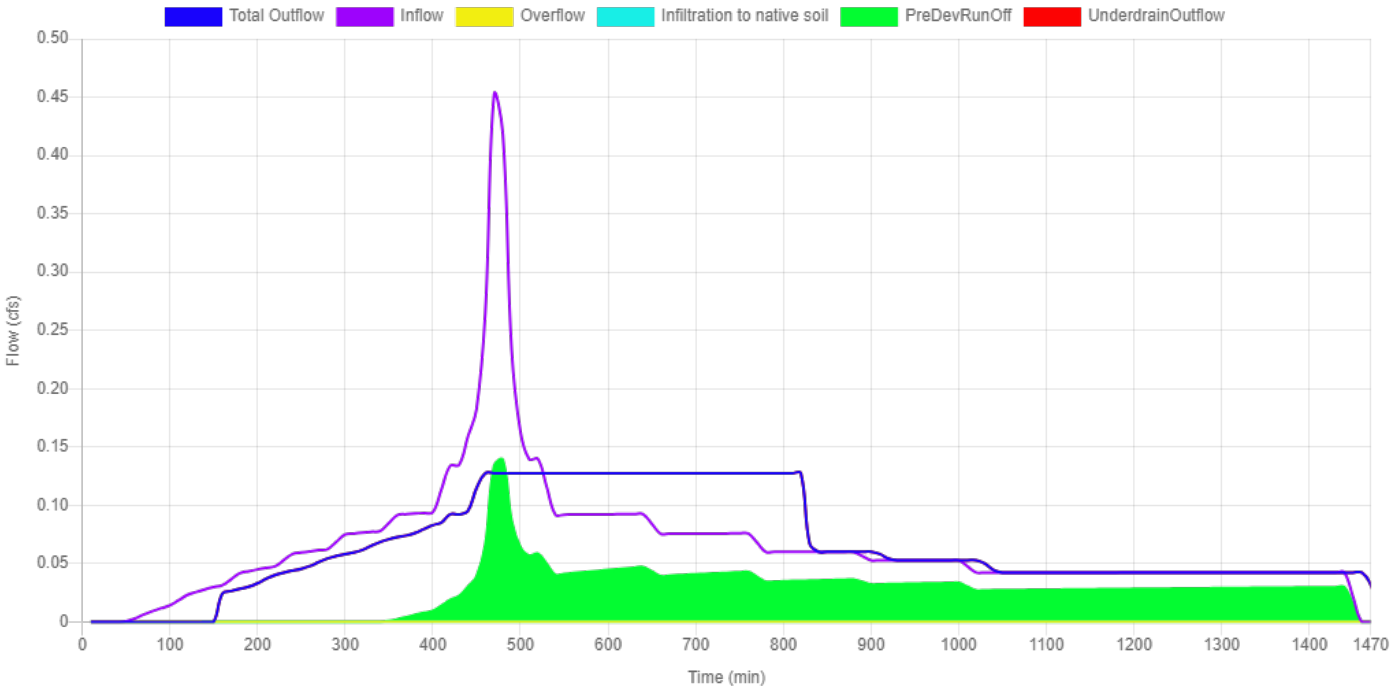
Surface Head



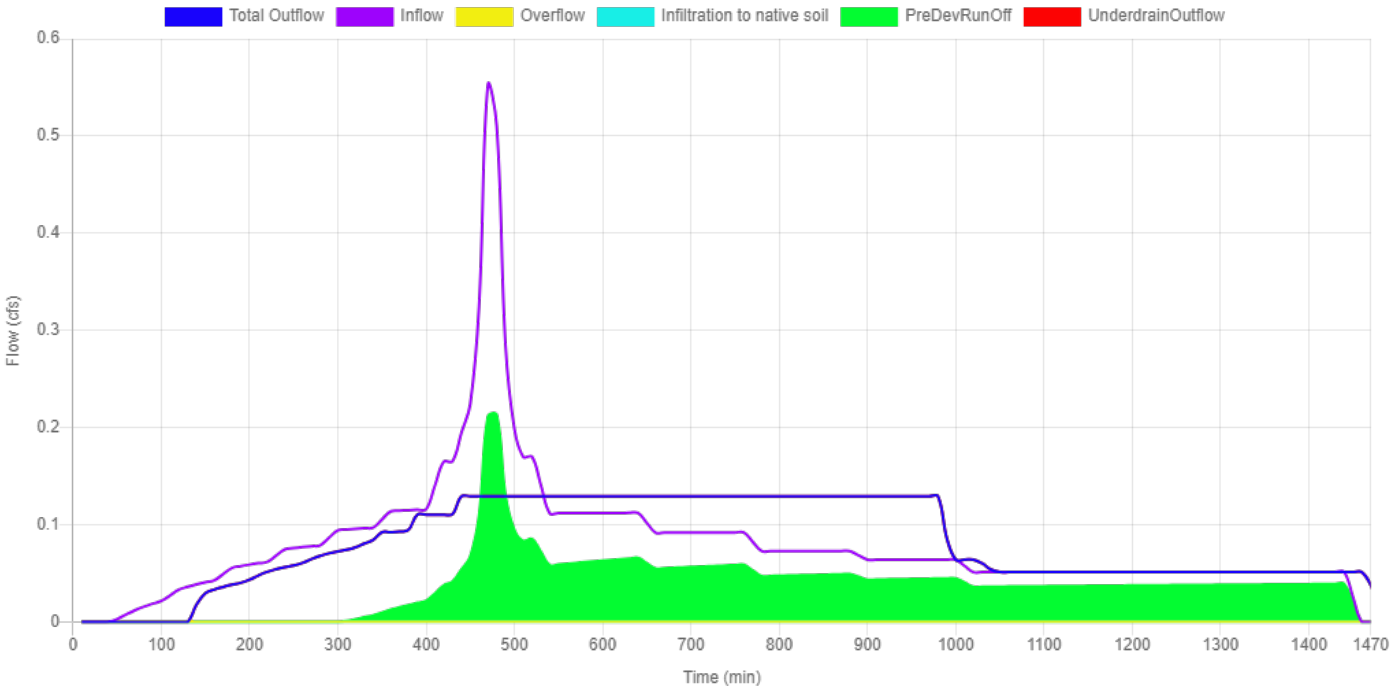
Water Quality



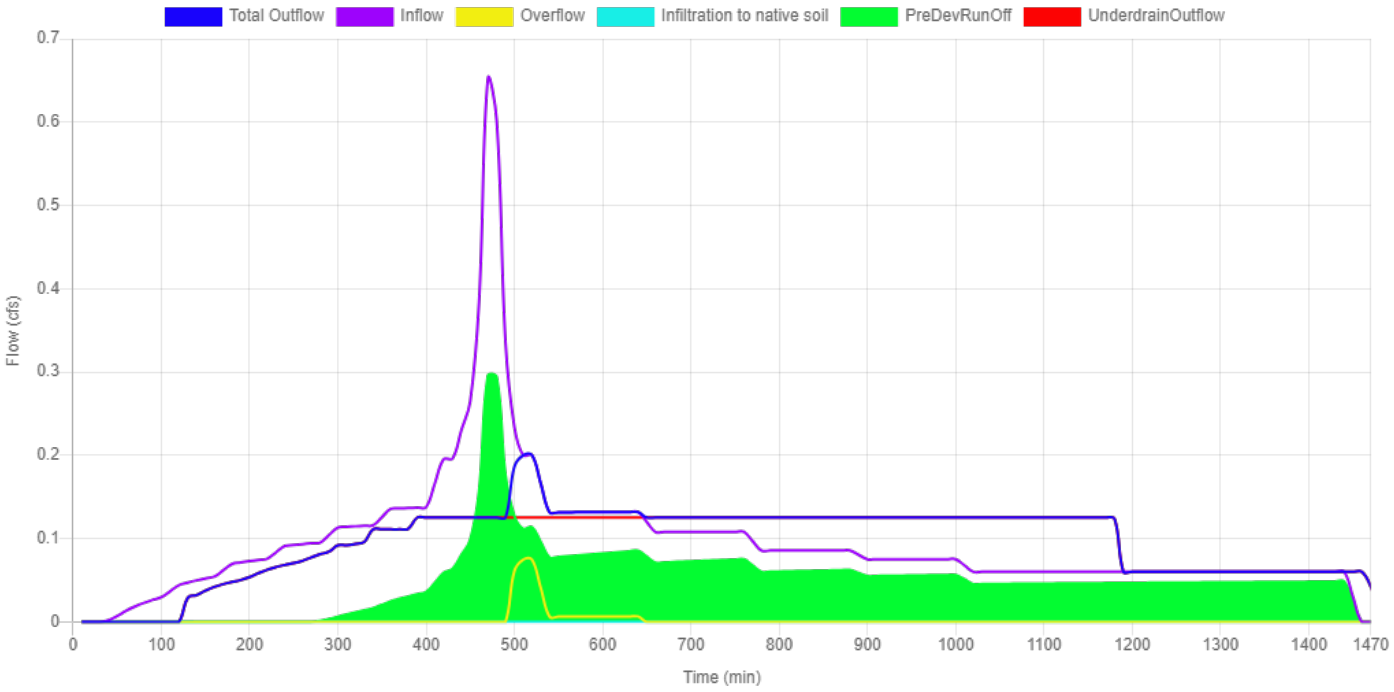
2-Year


Total Outflow
Inflow
Overflow
Infiltration to native soil
PreDevRunOff
UnderdrainOutflow
Flow (cfs)
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1470
Time (min)

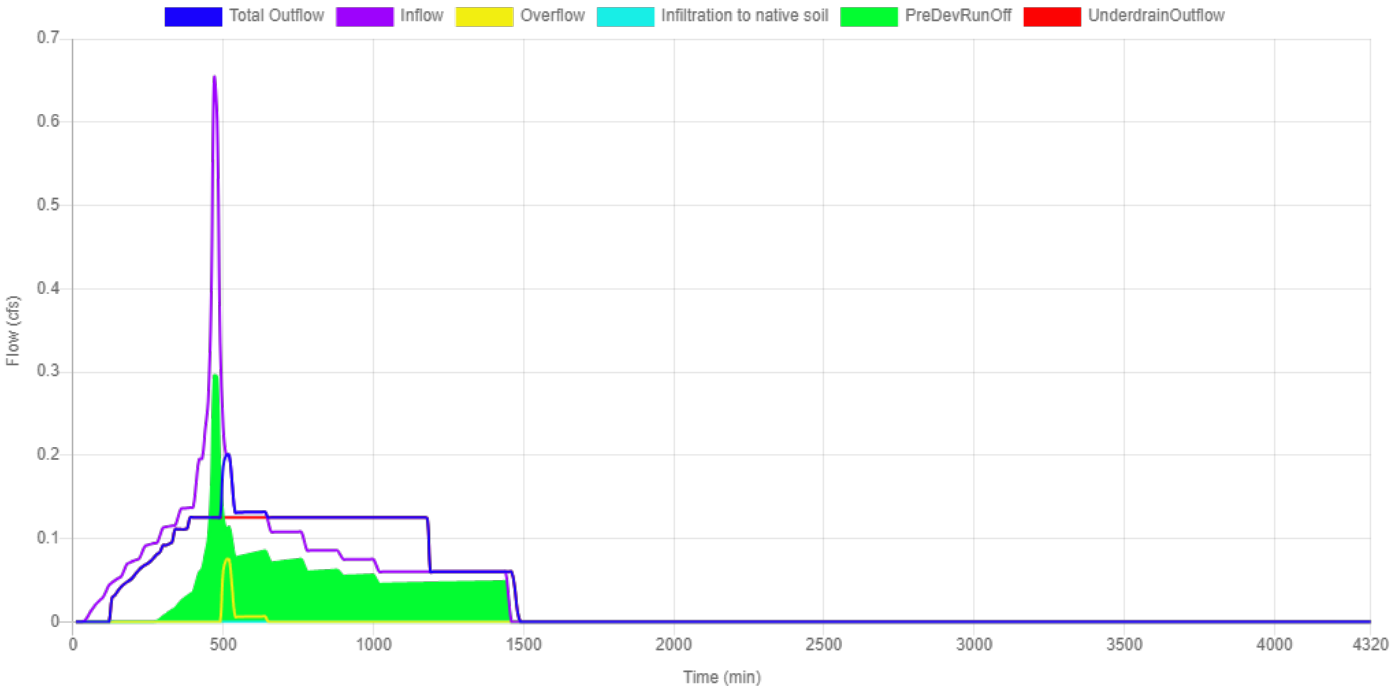
5-Year


Total Outflow
Inflow
Overflow
Infiltration to native soil
PreDevRunOff
UnderdrainOutflow
Flow (cfs)
0.6
0.5
0.4
0.3
0.2
0.1
0
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1470
Time (min)

10-Year



10-Year



PORTLAND CENTRAL EASTSIDE VENUE

TRANSPORTATION IMPACT STUDY

MAY 2024

PREPARED BY DKS ASSOCIATES

KEVIN CHEWUK, BRIANNA VELASQUEZ, AND CARL SPRINGER

DKS

1050 SW 6TH AVENUE, SUITE 600 • PORTLAND, OR 97204 • 503.243.3500 • DKSASSOCIATES.COM

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TABLE OF CONTENTS

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LIST OF TABLES

SECTION 1. INTRODUCTION

The purpose of this transportation impact study is to support the proposed Central Eastside Venue conditional use land use application. Included in the following sections is a documentation of existing transportation conditions, a summary of the assumptions and methodologies used to analyze future transportation conditions, a detail of operating conditions and a summary of recommendations to support the conditional use application.

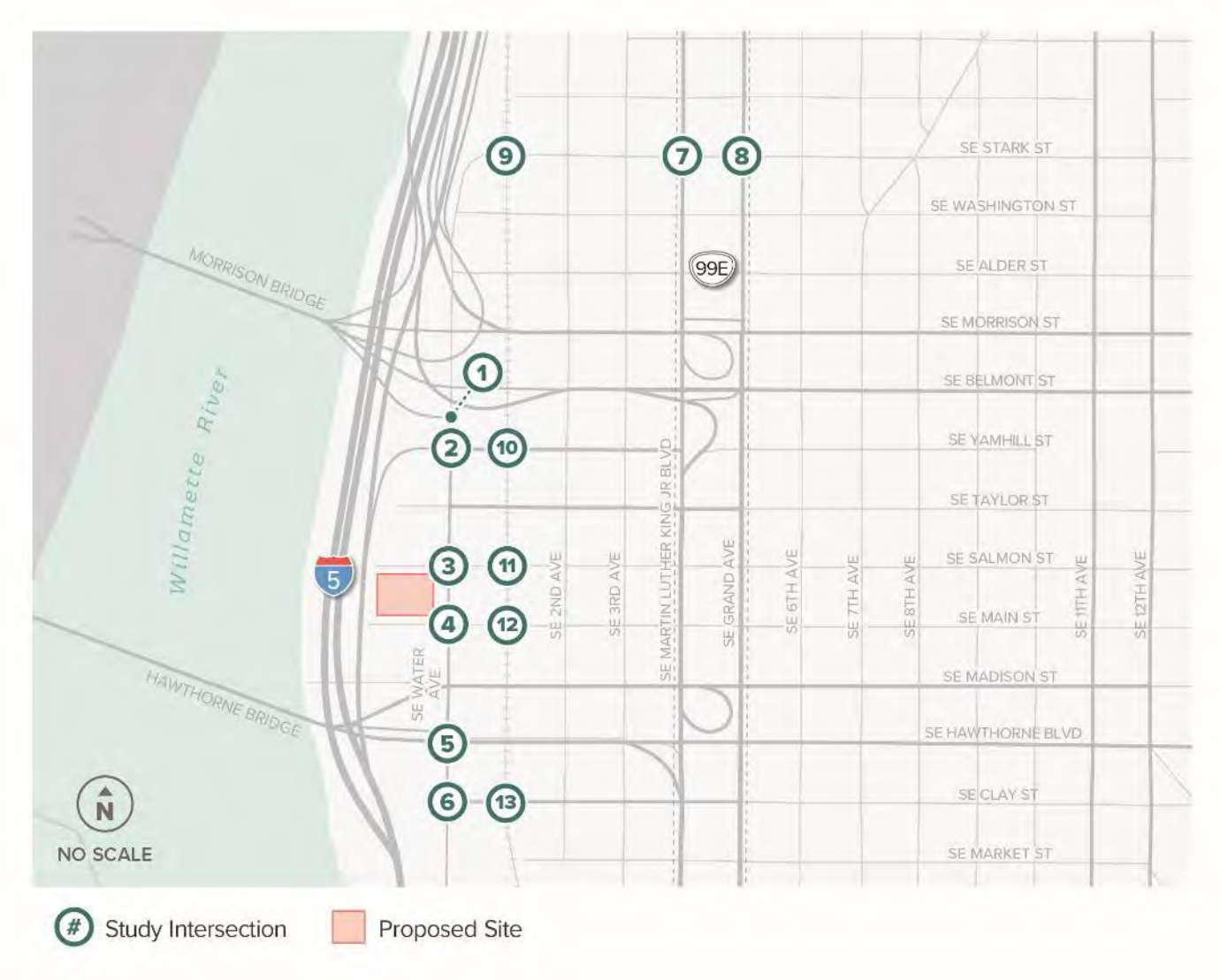
STUDY AREA

The proposed venue, shown in Figure 1, is located in the Central Eastside industrial area of inner southeast Portland along Water Avenue and is generally bounded by SE Salmon Street to the north, SE Main Street to the south, Interstate 5 (I-5) and the Willamette River to the west and the SE Water Avenue to the east. The following eight intersections and five adjacent at-grade railroad crossings were selected in coordination with Portland Bureau of Transportation (PBOT) and Oregon Department of Transportation (ODOT)[1] for evaluation:

1. SE Water Avenue/SE Morrison Bridge Off Ramp
2. SE Water Avenue & I-5 Off Ramp/SE Yamhill Street
3. SE Water Avenue/SE Salmon Street
4. SE Water Avenue/SE Main Street
5. SE Water Avenue/SE Hawthorne Boulevard
6. SE Water Avenue/SE Clay Street
7. SE Stark Street/SE Martin Luther King Jr Boulevard
8. SE Stark Street/SE Grand Avenue
9. SE Stark Street/Rail Crossing
10. SE Yamhill Street/Rail Crossing
11. SE Salmon Street/Rail Crossing
12. SE Main Street/Rail Crossing
13. SE Clay Street/Rail Crossing

[1] PBOT Traffic Scope Approval Form. Approved 6/2/2022.

FIGURE 1: STUDY INTERSECTIONS AND RAIL CROSSINGS



EXISTING 2023 TRANSPORTATION CONDITIONS

This section provides documentation of existing transportation conditions near the proposed venue, including an inventory of the existing transportation network, and an operational analysis and safety evaluation of the study intersections and crossings. For the purposes of the transportation analysis, the year 2023 was used as the baseline for existing conditions. Supporting details are provided in the appendix.

SITE CONDITIONS AND LAND USES

The proposed site is currently vacant and is surrounded by surface parking lots and industrial buildings. Adjacent property owners are ODOT and Prosper Portland to the north, south and west, and a collection of light industrial users to the east. The area surrounding the proposed venue is zoned exclusively General Industrial 1 (IG1) and is located within the Central City Plan District.

TRANSPORTATION FACILITIES

Existing transportation infrastructure includes a range of facilities for people who walk, ride bikes, use transit, or drive. The following sections summarize the existing infrastructure for the roadway, pedestrian, bicycle, and transit systems near the proposed venue.

EXISTING NETWORK CLASSIFICATIONS AND DESIGNATIONS

The City of Portland has multiple classifications and designations for streets depending on the roadway user[2]. These are summarized in Table 1 and include those for pedestrian, bicycle, transit, freight, street design and traffic. The classifications have been highlighted in the following way: bold for the highest priority for each classification or designation, italics for local class, and regular text for all other classes. More information on what each of these classifications entail can be found in Chapter 3 of the Portland Transportation System Plan.

[2] Transportation System Plan, City of Portland, March 2020.

TABLE 1: EXISTING NETWORK CLASSIFICATIONS NEAR THE PROPOSED VENUE

ROADWAY	PEDESTRIAN *	BICYCLE	TRANSIT	FREIGHT **	STREET DESIGN	TRAFFIC
ROADWAYS ADJACENT TO THE PROPOSED VENUE						
SE WATER AVE	**Major City Walkway**	**Major City Bikeway**	*Local Service Transit Street*	Priority Truck Street	Neighborhood Main Street	Traffic Access Street
SE SALMON ST	**Major City Walkway**/ *Local Street****	**Major City Bikeway**	*Local Service Transit Street*	Freight District Street	*Local Street*	*Local Service Traffic Street*
SE MAIN ST	*Local Street*	City Bikeway/ *Local Service Bikeway*****	*Local Service Transit Street*	Freight District Street	*Local Street*	*Local Service Traffic Street*
OFF-SITE ROADWAYS						
SE MLK JR BLVD	**Major City Walkway**	City Bikeway	**Major Transit Priority Street**	Priority Truck Street	Civic Corridor	**Major City Traffic Street**
SE GRAND AVE	**Major City Walkway**	City Bikeway	**Major Transit Priority Street**	Priority Truck Street	Civic Main Street	**Major City Traffic Street**
SE STARK STREET	**Major City Walkway**	City Bikeway	*Local Service Transit Street*	Priority Truck Street	Neighborhood Corridor	Traffic Access Street
SE YAMHILL ST	City Walkway	*Local Service Bikeway*	*Local Service Transit Street*	Freight District Street	*Local Street*	Traffic Access Street
SE CLAY ST	City Walkway	City Bikeway	*Local Service Transit Street*	Freight District Street	*Local Street*	Traffic Access Street

* All streets in the study area are within the Central City Pedestrian District.

** All streets in the study area are within the Central Eastside Freight District.

*** Local Street designation west of SE Water Avenue and Major City Walkway east of SE Water Avenue.

**** City Bikeway designation west of SE Water Avenue and Local Service Bikeway east of SE Water Avenue.

The classifications have been highlighted in the following way: bold for highest priority class, italics for local class, and regular text for all other classes.

EXISTING ROADWAY AND FREIGHT NETWORK

Table 2 summarizes the characteristics of the existing roadways near the proposed venue. SE Water Avenue provides north-to-south motor vehicle movement adjacent to the proposed venue, connecting SE Stark Street to the north with SE Clay Street and the OMSI district to the south. It is classified by the City of Portland as a Traffic Access Street and includes a Priority Truck Street designation (see Table 1). It maintains a continuous two-lane cross-section (i.e., one through lane in each direction) near the proposed venue.

The nearest private vehicle crossings of the Willamette River to the west of the proposed venue are the Morrison Bridge to the north and the Hawthorne Bridge to the south of the proposed venue.

SE Grand Avenue (one-way northbound) and SE Martin Luther King Jr Boulevard (one-way southbound) parallel SE Water Avenue to the east. SE Salmon Street and SE Main Street are classified as Local Service Traffic Streets and include Freight District Street designations since the area is located within the Central Eastside Freight District.

Existing Access and Parking

Existing vehicle access to the proposed venue is provided by driveways on SE Salmon Street and SE Main Street. The surface lots and street parking surrounding the proposed venue provide parking for existing uses. A parking study of the area surrounding the proposed venue is summarized later in this document.

TABLE 2: EXISTING ROADWAY CHARACTERISTICS NEAR THE PROPOSED VENUE

ROADWAY (SEGMENT LOCATION)	JURISDICTION	NUMBER OF LANES	PEDESTRIAN FACILITY	BICYCLE FACILITY	ON-STREET PARKING
SE WATER AVE (SE SALMON ST TO SE MAIN ST)	City of Portland	2	Sidewalks on Both Sides	Bike Lanes	Yes
SE SALMON ST (WEST OF SE WATER AVE)	City of Portland	2	Sidewalks on Both Sides	None	Yes
SE MAIN ST (WEST OF SE WATER AVE)	City of Portland	2	Sidewalks on Both Sides	None	Yes

EXISTING RAIL NETWORK AND CROSSINGS

The Union Pacific railroad tracks parallel SE Water Avenue one block to the east of the proposed venue and areas to the north and south through the Central Eastside of Portland. At-grade crossings are available on all streets between SE Stark Street and SE Clay Street. Train switching along this rail line coupled with the long train lengths block the at-grade road, pedestrian, and bikeway crossings at times during the day, making it difficult for people to get around them. This blockage creates a barrier between SE Water Avenue and areas to the east, with significant out of direction travel to the nearest overcrossing opportunities. The nearest grade separated private vehicle crossings of the railroad tracks are along SE Morrison Street and SE Belmont Street to the north and SE Madison Street and SE Hawthorne Boulevard to the south of the proposed venue, although westbound vehicle traffic has no access to SE Water Avenue and must cross the Willamette River and return eastbound across the Morrison Bridge or Hawthorne Bridge to exit onto SE Water Avenue. The nearest cyclist and pedestrian overcrossing opportunities are available at SE Belmont Street to the north and SE Madison Street to the south of the proposed venue (i.e., distances of less than 1/4 mile), and can be accessed via stairs from SE Water Avenue or ramps from the Eastbank Esplanade.

Details on the public study rail crossings adjacent to SE Water Avenue study intersections are summarized in Table 3. These at-grade crossings are located between SE Water Avenue and SE 2nd Avenue, about 200 feet from each intersection. These crossings experience an estimated 25 daily train movements[3], including 2-3 switching trains, 19 freight trains and 6 passenger trains each day. Half of the train movements occur during the day between 6 a.m. and 6 p.m. with the remainder occurring in the evening and night between 6 p.m. and 6 a.m.

TABLE 3: EXISTING CHARACTERISTICS AT STUDY RAIL CROSSINGS

RAIL CROSSING (USDOT CROSSING ID)	ROADWAY CROSSING PROTECTION	PEDESTRIAN CROSSING PROTECTION	TRAIN CROSSINGS PER DAY	AVERAGE TRAIN SPEED
SE STARK STREET (754542S)	Roadway Gates	None	19 (freight); 6 (passenger)	17-35 mph
SE YAMHILL STREET (754550J)	Roadway Gates	None		
SE SALMON STREET (754552X)	Roadway Gates	None		
SE MAIN ST (754553E)	Roadway Gates	None		
SE CLAY STREET (754559V)	Roadway Gates/ Overhead Lights	None		

EXISTING PEDESTRIAN NETWORK

The proposed venue is very accessible to pedestrians and is well-served by a network of continuous sidewalks on the surrounding streets, as shown in Table 2. SE Water Avenue provides sidewalks on both sides and is classified as a Major City Walkway (see Table 1). It connects pedestrians to the Major City Walkways along SE Salmon Street, SE Madison Street viaduct (accessed via stairs) and SE Hawthorne Boulevard viaduct (accessed via stairs) and City Walkways along SE Yamhill Street, SE Taylor Street and SE Clay Street.

The Eastbank Esplanade is located just to the west of the proposed venue, extending for nearly two miles along the Willamette River, from the Steel Bridge to SE Caruthers Street. This route connects pedestrians to several crossing opportunities to the west side of the river, including the Tilikum Crossing, Hawthorne Bridge, Morrison Bridge, Burnside Bridge and Steel Bridge. Pedestrians can currently access the Eastbank Esplanade from SE Salmon Street and SE Main Street. There is also pedestrian access to the Eastbank Esplanade via ramps from the Morrison Bridge and Hawthorne Bridge.

[3] Crossing Inventory Report, U.S. Department of Transportation, Federal Railroad Administration.

EXISTING BICYCLE NETWORK

SE Water Avenue provides bike lanes and is classified as a Major City Bikeway (see Table 1 and Table 2). It connects bicyclists to the Major City Bikeways along SE Salmon Street, SE Morrison Street and SE Belmont Street (under the Morrison Bridge viaduct), and SE Madison Street viaduct and SE Hawthorne Boulevard viaduct (accessed via the Eastbank Esplanade ramps) and City Bikeway along SE Main Street (west of SE Water Avenue), SE Madison Street (under the SE Madison Street viaduct), and SE Clay Street. SE Water Avenue, which turns into SE 4th Avenue south of SE Caruthers Street, provides bicyclists a connection to the Springwater Corridor trail.

Buffered bicycle lanes are provided on the SE Madison Street viaduct and SE Hawthorne Boulevard viaduct, connecting the Eastbank Esplanade and Hawthorne Bridge to SE Grand Avenue and neighborhoods further to the east. SE Salmon Street also provides a Major City bike route between the Eastbank Esplanade and southeast Portland, although it does not currently have any bike facilities or markings along the segment adjacent to the proposed venue. The Eastbank Esplanade also provides bicyclists an off-street connection between the Steel Bridge and SE Caruthers Street (just south of the Tilikum Crossing), and to the multi-use path crossings to the west side of the Willamette River on the Tilikum Crossing, Hawthorne Bridge, Morrison Bridge and Steel Bridge. These are all regional commuting and recreational routes for bicyclists and there are high bicycle volumes observed on each.

EXISTING TRANSIT FACILITIES

All streets near the proposed venue are designated as Local Service Transit Streets (see Table 1). The closest designated Major Transit Priority streets to the proposed venue include the SE Morrison Street and SE Belmont Street viaducts to the north, SE Madison Street and SE Hawthorne Boulevard viaducts to the south, and SE Grand Avenue and SE Martin Luther King Jr Boulevard to the east.

Transit service is provided near the proposed venue by the Portland Streetcar- A and B Loop and TriMet Route 6 – Martin Luther King Jr Blvd, Route 10 – Harold St, Route 14 – Hawthorne, and Route 15 – Belmont/NW 23rd. All of these transit options are within a 10-minute walk from the proposed venue.

The Portland Streetcar- A and B Loop, connects riders to the Pearl District, Lloyd District and Portland State University, with stops near the proposed venue on SE Grand Avenue and SE Martin Luther King Jr Boulevard between SE Salmon Street and SE Taylor Street. The A Loop runs clockwise while the B Loop runs counterclockwise, with service every 20 minutes, most of the day, every day. Existing streetcar service near the proposed venue begins around 7:30 a.m. on weekdays and weekends and ends around 10:30 p.m. on weekdays and 10:00 p.m. on weekends.

Stops for TriMet Routes 6, 10 and 14 are located on the SE Madison Street and SE Hawthorne Boulevard viaducts (accessed via stairs from SE Water Avenue). TriMet Route 6 provides bus service every 15 minutes for most of the day, every day between downtown Portland and the Transit Mall along 5th and 6th Avenues and Jantzen Beach. TriMet Routes 10 and 14 provides bus service between downtown Portland and the Transit Mall along 5th and 6th Avenues and the Lents neighborhood. Route 14 provides bus service every 15 minutes for most of the day, every day

while Route 10 provides bus service about every 45 minutes between 6:00 a.m. and 8:00 p.m. on weekdays, between 10:00 a.m. and 6:00 p.m. on weekends.

Stops for TriMet Route 15 are located on the SE Morrison Street and SE Belmont Street viaducts (accessed via stairs from SE Water Avenue), with service between NW 23rd Avenue, downtown Portland and the Transit Mall along 5th and 6th Avenues, and the Gateway Transit Center. Service is offered every 15 minutes for most of the day, every day.

The MAX Blue and Red Lines also have stops along SW 1st Avenue in downtown Portland across the Morrison Bridge, and the MAX Orange Line has a stop near SE Tilikum Way. These stops are within a 15 to 20-minute walk from the proposed venue. The MAX provides service every 15 minutes for most of the day, every day. All of these routes provide transfer opportunities to other MAX light-rail and TriMet bus routes in downtown Portland along the 5th and 6th Avenue transit mall.

SAFETY ANALYSIS

The most recent five years of available collision data at the study intersections was obtained from ODOT and used to evaluate the collision history[4]. There were 66 crashes recorded at the study intersections over the five-year period (see Table 4), with the most crashes occurring at the SE Stark Street/SE Grand Avenue and SE Stark Street/SE Martin Luther King Jr Boulevard intersections.

There were no fatalities at the study intersections over the five-year period, although 30 of the crashes resulted in an injury. There were seven crashes involving people walking or biking at the study intersections, including three at the SE Stark Street/SE Grand Avenue intersection, two at the SE Water Avenue/SE Hawthorne Boulevard intersection and one at the SE Water Avenue/SE Morrison Bridge Off Ramp and SE Water Avenue/SE Salmon Street intersections.

The most common collision types that occurred at the study intersections were angle, turning and rear-end crashes, with many of these occurring at the SE Stark Street/SE Grand Avenue and SE Stark Street/SE Martin Luther King Jr Boulevard signalized intersections. Many of these crashes show “no yield” or “disregarded traffic signal” as the cited cause.

There were five turning crashes at the SE Water Avenue/SE Hawthorne Boulevard intersection, possible due to the intersection skew and four rear-end crashes at the I-84 off-ramp intersection with SE Water Avenue, potentially related to queuing on the off-ramp.

[4] ODOT reported collisions for January 1, 2016, through December 31, 2020.

TABLE 4: SUMMARY OF COLLISIONS AT STUDY INTERSECTIONS

STUDY INTERSECTION	TOTAL COLLISIONS	COLLISION TYPE				COLLISION SEVERITY			COLLISION FLAG	
		ANGLE	REAR-END	TURNING	OTHER	FATAL	INJURY	PDO *	PED	BIKE
SE WATER AVENUE/SE MORRISON BRIDGE OFF RAMP	**1**	0	0	0	1	0	1	0	1	0
SE WATER AVENUE & I-5 OFF RAMP/SE YAMHILL STREET	**11**	3	4	0	4	0	5	6	0	0
SE WATER AVENUE/SE SALMON STREET	**6**	3	1	1	1	0	4	2	0	1
SE WATER AVENUE/SE MAIN STREET	**2**	1	1	0	0	0	1	1	0	0
SE WATER AVENUE/SE HAWTHORNE BOULEVARD	**8**	0	2	5	1	0	4	4	1	1
SE WATER AVENUE/SE CLAY STREET	**2**	0	1	0	1	0	0	2	0	0
SE STARK STREET/SE MARTIN LUTHER KING JR BOULEVARD	**16**	1	6	5	4	0	5	11	0	0
SE STARK STREET/SE GRAND AVENUE	**20**	4	3	6	7	0	10	10	1	2
TOTAL	**66**	**12**	**18**	**17**	**19**	**0**	**30**	**36**	**3**	**4**

Source: ODOT Crash Analysis and Reporting Unit. Reported collision data from 2016 to 2020.

* PDO = Property Damage Only

In addition, the Union Pacific study rail crossings along the segment between SE Stark Street and SE Clay Street also had three reported incidents in the past five years, two in 2020 and one in 2022, two at the SE Salmon Street and one at the SE Clay Street crossings (see Table 5). Each of these incidents included a train striking a pedestrian, with two resulting in a fatality and one resulting in an injury.

TABLE 5: SUMMARY OF COLLISIONS AT STUDY RAIL CROSSINGS

STUDY RAIL CROSSING	TOTAL COLLISIONS	COLLISION SEVERITY		COLLISION FLAG	
		FATAL	INJURY	PED	BIKE
SE STARK STREET (754542S)	**0**	0	0	0	0
SE YAMHILL STREET (754550J)	**0**	0	0	0	0
SE SALMON STREET (754552X)	**2**	1	1	2	0
SE MAIN ST (754553E)	**0**	0	0	0	0
SE CLAY STREET (754559V)	**1**	1	0	1	0
TOTAL	**3**	**2**	**1**	**3**	**0**

Source: Crossing Accident Report, U.S. Department of Transportation, Federal Railroad Administration. Reported collision data from 2018 to 2022.

Crash rates provide an additional perspective on intersection safety and identify locations where people have a higher risk of being involved in a crash. Crash frequencies (the number of crashes in a period of time) tend to increase with higher vehicle traffic. With more exposure to vehicles, there are more opportunities for crashes to occur. Crash rates consider the number of crashes relative to the traffic volume at the intersection and are expressed in units of crashes per million entering vehicles.

Crash rates (crashes per million entering vehicles) for the study intersections were calculated and evaluated using the critical crash rate method from the Highway Safety Manual. The critical crash rate method compares an intersection's crash history to that of other similar intersections, adjusting for volume at the intersection. Where an intersection's crash rate is greater than the critical crash rate, it is an indication that a problem might exist, and that further study is warranted.

As shown in Table 6, crash rates calculated at most study intersections are well below this threshold, indicating the frequency of collisions is typical for the volume of traffic served. The exceptions are the SE Water Avenue intersections with I-5 Off Ramp/SE Yamhill Street, SE Salmon Street and SE Hawthorne Boulevard. A summary of these intersections is provided below.

- **SE Water Avenue/I-5 Off Ramp/SE Yamhill Street:** this is a 4-leg intersection with all way stop control. Most of the collisions were angle/rear end type (7 of the 11 total collisions). Four of the collisions were caused by drivers failing to yield or passing the stop sign, four were caused by drivers running into stopped vehicles, two were caused by improper lane changes and one was caused by a speeding vehicle.
- **SE Water Avenue/SE Salmon Street:** this is a 4-leg intersection with stop control of the side street approaches. Most of the collisions were angle/rear end type (4 of the 6 total collisions). Three of the collisions were caused by drivers failing to yield or passing the stop sign, two were

caused by drivers running into a stopped or parked vehicle, and one was caused by a bike passing the stop sign.

- **SE Water Avenue/SE Hawthorne Boulevard:** this is a 3-leg intersection with stop control of the side street approach. Most of the collisions were turn type (5 of the 8 total collisions). Four of the collisions were caused by drivers failing to yield, including one to a pedestrian and one to a bike, two were caused by drivers running into stopped vehicles, and two were caused by vehicles going the wrong way or making improper turns.

TABLE 6: STUDY INTERSECTION COLLISION ANALYSIS

STUDY INTERSECTION	TOTAL COLLISIONS	OBSERVED CRASH RATE (PER MEV)	CRITICAL CRASH RATE (PER MEV)	OVER CRITICAL CRASH RATE
SE WATER AVENUE/SE MORRISON BRIDGE OFF RAMP	**1**	0.08	0.29	No
SE WATER AVENUE & I-5 OFF RAMP/SE YAMHILL STREET	**11**	0.53	0.41	**Yes**
SE WATER AVENUE/SE SALMON STREET	**6**	0.62	0.41	**Yes**
SE WATER AVENUE/SE MAIN STREET	**2**	0.21	0.41	No
SE WATER AVENUE/SE HAWTHORNE BOULEVARD	**8**	0.64	0.29	**Yes**
SE WATER AVENUE/SE CLAY STREET	**2**	0.20	0.51	No
SE STARK STREET/SE MARTIN LUTHER KING JR BOULEVARD	**16**	0.33	0.51	No
SE STARK STREET/SE GRAND AVENUE	**20**	0.31	0.51	No

EXISTING YEAR CAPACITY ANALYSIS

This section will summarize the existing year intersection operations at the eight study intersections using Highway Capacity Manual (HCM) 6th edition methodology.

EXISTING MOTOR VEHICLE VOLUMES

To determine intersection operations, turn movement count data was obtained[5] for the study intersections during the weekday and weekend pre-event period (6 p.m. to 8 p.m.) and post-event period (10:00 p.m. to 12:00 a.m.). Traffic volumes at the five at-grade railroad crossings were estimated based on available count data at the adjacent study intersections.

Based on programming information provided by the venue operator, a system peak hour was established for the pre-event period from 7:00 – 8:00 p.m. and post-event period from 11:00 p.m. – 12:00 a.m. Existing year volumes were balanced between adjacent intersections once the system peak was established.

DAILY MOTOR VEHICLE VOLUMES

Daily motor vehicle count data was also collected adjacent to the proposed venue along SE Water Avenue, south of SE Salmon Street and north of SE Main Street[6]. The count data indicates that approximately 4,900 vehicles pass the proposed venue along SE Water Avenue during an average weekday. Of these vehicles, 1,300 travel northbound and 3,600 travel southbound. The highest number of trips along SE Water Avenue occurs from 5:00 – 6:00 p.m., with 488 vehicles passing the proposed venue (157 northbound and 331 southbound). During the pre-event and post-event peak hours, 165 and 35 vehicles pass the proposed venue along SE Water Avenue, respectively. Five percent of the traffic along SE Water Avenue is trucks.

EXISTING INTERSECTION OPERATIONS

This section discusses the existing conditions for motor vehicles at the study intersections, including an analysis of traffic operations.

Intersection Performance Measures

Level of service (LOS) ratings and volume-to-capacity (v/c) ratios are two commonly used performance measures that provide a good picture of intersection operations. Agencies often incorporate these performance measures into their mobility standards. Descriptions are given below:

- **Level of service (LOS):** A "report card" rating (A through F) based on the average delay experienced by vehicles at the intersection. LOS A, B, and C indicate conditions where traffic moves without significant delays over periods of peak hours travel demand. LOS D and E are

[5] Count data collected in July 2023.

[6] Based on tube counts conducted July 13th to 14th, 2023.

progressively worse operation conditions. LOS F represents conditions where average vehicle delay has become excessive, and demand has exceeded capacity.

- **Volume-to-capacity (v/c) ratio:** A decimal representation (typically between 0.00 and 1.00) of the proportion of capacity that is being used at a turn movement, approach leg, or intersection. It is determined by dividing the peak hour traffic volume by the hourly capacity of a given intersection or movement. A lower ratio indicates smooth operations and minimal delays. As the ratio approaches 1.00 (generally above 0.70), congestion noticeably increases, and performance is reduced. If the ratio is greater than 1.00, the turn movement, approach leg, or intersection is oversaturated and usually results in excessive queues and long delays.

Jurisdictional Mobility Targets

The mobility targets for the study intersections vary according to the agency of jurisdiction for each roadway. Seven of the study intersections are under City of Portland jurisdiction and one is under ODOT jurisdiction.

ODOT requires a v/c ratio of 0.85 to be maintained at interchange ramp terminals[7], including the SE Water Avenue intersection with the I-84 off-ramp.

For streets designated on the Metro Regional Transportation Plan Arterial and Throughway Network, local Transportation System Plans are required to adopt the regional targets or alternative targets that are no lower than those adopted by the region[8]. The only study intersections along designated streets are the SE Stark Street/SE Grand Avenue and SE Stark Street/SE Martin Luther King Jr Boulevard intersections. Metro and the City of Portland standards require a v/c ratio of 1.10 or less be maintained in the first peak hour and a v/c ratio of 0.99 or less be maintained for the hour before or after the peak hour at these intersections in the Central City of Portland[9]. For this analysis, a v/c ratio of 0.99 will be assumed at these intersections.

For City study intersections along SE Water Avenue not designated on the Metro Regional Transportation Plan Arterial and Throughway Network, the City of Portland standards require a LOS "D" or better to be maintained for signalized intersections and a LOS "E" or better for intersections with stop control[10].

Existing Operating Conditions

Motor vehicle conditions were evaluated during the weekday and weekend pre-event and post event peak hours at the study intersections (see Table 7) using the *Highway Capacity Manual, 6th Edition* (HCM)[11] methodologies. Since HCM 6th edition methodologies were used, manual calculations outside of Synchro software were required based on the ODOT Analysis Procedures

[7] Oregon Highway Plan, Policy 1F, Action 1F.1. Updates through May 2015.

[8] Metro Regional Transportation Functional Plan, Section 3.08.230, Subsection A and B, Performance Targets and Standards

[9] Portland 2035 Transportation System Plan, Policy 9.49.k. Table 9-2. March 2020.

[10] Portland 2035 Transportation System Plan, Policy 9.49.j. March 2020. Standards provided in TRN-10.27.

[11] Highway Capacity Manual, 6th Edition, Transportation Research Board, 2016.

Manual to obtain intersection v/c ratios at signalized intersections. These calculations and Synchro reports can be found in the appendix.

As shown in Table 7, all study intersections meet the current mobility targets during the weekday and weekend pre-event and post event peak hours. All intersections along SE Water Avenue operate with a LOS B or better and with a v/c of 0.43 or less, while the signalized intersections at SE Stark Street/SE Grand Avenue and SE Stark Street/SE Martin Luther King Jr Boulevard operate with a LOS C or better and with a v/c of 0.47 or better, well below the current mobility targets.

TABLE 7: EXISTING 2023 STUDY INTERSECTION OPERATIONS

STUDY INTERSECTION	TRAFFIC CONTROL	MOBILITY TARGET	PRE-EVENT PEAK HOUR (7-8 P.M.)			POST-EVENT PEAK HOUR (11 P.M. -12 A.M.)		
			LOS	DELAY	V/C	LOS	DELAY	V/C
WEEKDAY								
SE WATER AVENUE/SE MORRISON BRIDGE OFF RAMP	Two-Way Stop Control	LOS E	A/A	0/9	0.17/0.04	A/A	0/9	0.04/0.02
SE WATER AVENUE & I-5 OFF RAMP/SE YAMHILL STREET	All-Way Stop Control	0.85 v/c	B	11	0.41	A	8	0.09
SE WATER AVENUE/SE SALMON STREET	Two-Way Stop Control	LOS E	A/A	8/10	0.09/0.02	A/A	7/9	0.03/0.01
SE WATER AVENUE/SE MAIN STREET	Two-Way Stop Control	LOS E	A/A	7/10	0.09/0.04	A/A	7/9	0.03/0.01
SE WATER AVENUE/SE HAWTHORNE BOULEVARD	Two-Way Stop Control	LOS E	A/B	8/10	0.03/0.03	A/A	7/0	0.02/0.00
SE WATER AVENUE/SE CLAY STREET	Traffic Signal	LOS D	A	4	0.10	A	4	0.02
SE STARK STREET/SE MARTIN LUTHER KING JR BOULEVARD	Traffic Signal	0.99 v/c	C	23	0.44	B	18	0.18
SE STARK STREET/SE GRAND AVENUE	Traffic Signal	0.99 v/c	B	12	0.40	A	9	0.15
WEEKEND								
SE WATER AVENUE/SE MORRISON BRIDGE OFF RAMP	Two-Way Stop Control	LOS E	A/A	0/9	0.17/0.04	A/A	0/9	0.07/0.03
SE WATER AVENUE & I-5 OFF RAMP/SE YAMHILL STREET	All-Way Stop Control	0.85 v/c	B	12	0.43	A	9	0.22
SE WATER AVENUE/SE SALMON STREET	Two-Way Stop Control	LOS E	A/B	8/10	0.03/0.02	A/A	7/9	0.02/0.03
SE WATER AVENUE/SE MAIN STREET	Two-Way Stop Control	LOS E	A/B	8/11	0.03/0.02	A/A	7/10	0.02/0.02

STUDY INTERSECTION	TRAFFIC CONTROL	MOBILITY TARGET	PRE-EVENT PEAK HOUR (7-8 P.M.)			POST-EVENT PEAK HOUR (11 P.M. -12 A.M.)		
			LOS	DELAY	V/C	LOS	DELAY	V/C
SE WATER AVENUE/SE HAWTHORNE BOULEVARD	Two-Way Stop Control	LOS E	A/B	8/10	0.03/0.02	A/A	7/9	0.02/0.01
SE WATER AVENUE/SE CLAY STREET	Traffic Signal	LOS D	A	4	0.14	A	4	0.06
SE STARK STREET/SE MARTIN LUTHER KING JR BOULEVARD	Traffic Signal	0.99 v/c	B	12	0.47	A	10	0.28
SE STARK STREET/SE GRAND AVENUE	Traffic Signal	0.99 v/c	B	12	0.38	B	12	0.29

Note: Intersection operations are reported for the entire intersection at traffic signals and all-way stop intersections, and for the worst major street movement/worst minor street movement at two-way stop control intersections.

Existing Freight Train Delay and Queuing

At-grade crossings are available on all streets between SE Stark Street and SE Clay Street. Train switching along this rail line coupled with the long train lengths block the at-grade road, pedestrian, and bikeway crossings at times during the day, making it difficult for people to get around them and creating long delays for people. Vehicle queues during these blockages spill back from the at-grade crossings onto SE Water Avenue, and onto side streets, most notably the I-84 Off-Ramp at SE Yamhill Street. Improvement strategies for this existing issue are discussed later in this document.

FUTURE 2025 NO BUILD TRANSPORTATION CONDITIONS

This section summarizes Future Year 2025 No Build conditions and identifies how transportation facilities will function in the future without the proposed venue. The future year of 2025 is used for the future horizon when the site is assumed to be fully developed.

PLANNED TRANSPORTATION SYSTEM IMPROVEMENTS

A list of planned transportation system improvement projects located near the project site or at study intersections contained in the Portland Transportation System Plan[12] is provided below. While these projects represent previously identified needs and are expected to be funded through the horizon of the TSP (i.e., are identified as financially constrained), they were not used in the 2025 no build traffic forecasts for the proposed venue since they are not likely to be fully funded and constructed by that time. These previously planned improvements include:

- **SE Water Avenue Corridor Improvements (Financially Constrained TSP Project ID 20075):** Remove rails from roadway, repair pavement, build sidewalks, and enhance existing bikeway to include a two-way cycle track from SE Stark Street to SE Clay Street. Two-way cycle track included as part of Project 14 in the Central City in Motion Implementation Plan[13].
- **SE Yamhill/SE Taylor Couplet (Financially Constrained TSP Project ID 20184):** Improve traffic safety and capacity by converting Yamhill Street and Taylor Street to couplet operation between Water Avenue and Grand Avenue, including new traffic signal at SE Taylor Street/SE Water Avenue.
- **SE Yamhill/SE Water Traffic Improvements (Financially Constrained TSP Project ID 20187; Transportation System Development Charge Project ID 20187)**: Install signal at Yamhill Street/Water Avenue intersection with turn lane and queue detection treatments on the I-84 NB exit ramp to reduce queue length and/or provide advanced warning sign of queue on the exit ramp. This project is also included on the Citywide Transportation System Development Charge (TSDC) project list at 100 percent eligible (TSDC Project ID 20187).
- **Central Eastside Access and Circulation Enhancement Project (Financially Constrained TSP Project ID 20205):** Improve access and circulation in the Central Eastside by adding new signals and crossings at Hawthorne & Clay ramp, Salmon & Grand, Salmon & MLK, Washington & Grand, Washington & MLK, Ankeny & MLK, Ankeny & Sandy, 16th & Irving, modifying signals at Stark & Grand, Clay & Grand, Mill & MLK, and reconstructing SE Clay St from Water to Grand. This project is also included on the Citywide Transportation System Development Charge (TSDC) project list at 46 percent eligible (TSDC Project ID 20205).
- **SE Stark/Washington Safety and Access Improvements (Financially Constrained TSP Project ID 20073):** Improve freight and bicycle connectivity and mobility by reconfiguring traffic flow and turning movements on Stark and Washington Streets between Water and Sandy.

[12] Portland Transportation System Plan. March 2020.

[13] Central City in Motion, PBOT, July 2020.

Requires signals and/or crossings at Grand and MLK (see project 20205). Consider protected intersections at Sandy & Washington and Sandy & Stark during project design.

- **SE Salmon Neighborhood Greenway Improvements (Financially Constrained TSP Project ID 20174):** Improve existing neighborhood greenway by installing improved crossings at 7th, 11th, and 12th. Once traffic signals are constructed at MLK/Grand (see project 20073), extend the Salmon neighborhood greenway from 7th to the Eastbank Esplanade. Project is included as part of Project 9 in the Central City in Motion Implementation Plan[14].

BACKGROUND MOTOR VEHICLE VOLUME GROWTH

Background traffic volume growth (i.e., growth that is not associated with the proposed venue) through 2025 was estimated using annual growth rates. These growth rates were estimated based on the volume growth in the 2015 and 2040 Metro travel demand models.

Along SE Water Avenue adjacent to the project site, the average annual growth rate from 2015 to 2040 was estimated to be 0.5 percent per year. This growth rate will be applied to the six study intersections along SE Water Avenue (i.e., at the SE Morrison Bridge Off Ramp, I-5 Off Ramp/SE Yamhill Street, SE Salmon Street, SE Main Street, SE Hawthorne Boulevard and SE Clay Street intersections).

A separate growth rate calculation was performed for the SE Stark Street/SE Grand Avenue and SE Stark Street/SE Martin Luther King Jr Boulevard study intersections further away from the proposed venue. The estimated average growth rate from the travel demand models was approximately 0.25 percent per year at these intersections. These growth rates will be applied between 2023 and 2025 to represent background traffic growth for the horizon year at study intersections.

The approved Oregon Museum of Science and Industry (OMSI) Central City Master Plan will also be expected to add trips to study intersections. These approved trips were adjusted to represent only growth between 2023 and 2025 for the weekday and weekend pre-event and post-event peak hours and distributed to the study intersections[15]. There are no other major approved or in-process developments near the proposed venue that would add significant trips to the study area streets and intersections.

[14] Central City in Motion, PBOT, July 2020.

[15] OMSI includes 1,379 approved p.m. peak hour trips (i.e., 478 inbound and 901 outbound) through the year 2040. These trips were adjusted linearly to represent only growth between 2023 and 2025, which is estimated to be 162 of the approved p.m. peak hour trips (i.e., 56 inbound and 106 outbound). Count data was utilized to determine the ratio of the weekday p.m. peak hour volumes to the weekday pre-event and post-event peak hour volumes, and weekday pre-event and post-event peak hour volumes to weekend pre-event and post-event peak hour volumes. These ratios were applied to the adjusted approved OMSI p.m. peak hour trips to create estimates for the missing periods.

FUTURE 2025 NO BUILD INTERSECTION OPERATIONS

No changes were applied at study intersections to account for the previously identified planned improvements near the proposed venue since they are not likely to be fully funded and constructed by 2025. All study intersection configurations remain the same as Existing Conditions.

Table 8 shows the future 2025 intersection operations at study intersections, without the proposed venue. As shown, all study intersections are expected to continue to meet mobility targets, with most experiencing very little background traffic growth through 2025. However, the v/c ratios are expected to increase up to 3 percent during the peak hours by 2025 at the SE Water Avenue/SE Clay Street intersection closest to the OMSI Central City Master Plan area. Detailed intersection operations calculation worksheets are included in the Appendix.

TABLE 8: FUTURE NO-BUILD 2025 STUDY INTERSECTION OPERATIONS

STUDY INTERSECTION	TRAFFIC CONTROL	MOBILITY TARGET	PRE-EVENT PEAK HOUR (7-8 P.M.)			POST-EVENT PEAK HOUR (11 P.M. -12 A.M.)		
			LOS	DELAY	V/C	LOS	DELAY	V/C
WEEKDAY								
SE WATER AVENUE/SE MORRISON BRIDGE OFF RAMP	Two-Way Stop Control	LOS E	A/A	0/9	0.17/0.04	A/A	0/9	0.04/0.02
SE WATER AVENUE & I-5 OFF RAMP/SE YAMHILL STREET	All-Way Stop Control	0.85 v/c	B	11	0.41	A	8	0.09
SE WATER AVENUE/SE SALMON STREET	Two-Way Stop Control	LOS E	A/A	8/10	0.09/0.02	A/A	7/9	0.03/0.01
SE WATER AVENUE/SE MAIN STREET	Two-Way Stop Control	LOS E	A/B	7/10	0.10/0.05	A/A	7/9	0.03/0.01
SE WATER AVENUE/SE HAWTHORNE BOULEVARD	Two-Way Stop Control	LOS E	A/B	8/10	0.03/0.03	A/A	7/0	0.02/0.00
SE WATER AVENUE/SE CLAY STREET	Traffic Signal	LOS D	A	4	0.12	A	4	0.02
SE STARK STREET/SE MARTIN LUTHER KING JR BOULEVARD	Traffic Signal	0.99 v/c	C	23	0.44	B	18	0.18
SE STARK STREET/SE GRAND AVENUE	Traffic Signal	0.99 v/c	B	12	0.41	A	9	0.15
WEEKEND								
SE WATER AVENUE/SE MORRISON BRIDGE OFF RAMP	Two-Way Stop Control	LOS E	A/A	0/9	0.17/0.04	A/A	0/9	0.07/0.03
SE WATER AVENUE & I-5 OFF RAMP/SE YAMHILL STREET	All-Way Stop Control	0.85 v/c	B	12	0.43	A	9	0.22

STUDY INTERSECTION	TRAFFIC CONTROL	MOBILITY TARGET	PRE-EVENT PEAK HOUR (7-8 P.M.)			POST-EVENT PEAK HOUR (11 P.M. -12 A.M.)		
			LOS	DELAY	V/C	LOS	DELAY	V/C
SE WATER AVENUE/SE SALMON STREET	Two-Way Stop Control	LOS E	A/B	8/10	0.03/0.02	A/A	7/10	0.02/0.02
SE WATER AVENUE/SE MAIN STREET	Two-Way Stop Control	LOS E	A/B	8/11	0.03/0.02	A/A	7/10	0.02/0.02
SE WATER AVENUE/SE HAWTHORNE BOULEVARD	Two-Way Stop Control	LOS E	A/B	8/11	0.04/0.02	A/A	7/9	0.02/0.01
SE WATER AVENUE/SE CLAY STREET	Traffic Signal	LOS D	A	3	0.17	A	4	0.07
SE STARK STREET/SE MARTIN LUTHER KING JR BOULEVARD	Traffic Signal	0.99 v/c	B	12	0.48	A	10	0.28
SE STARK STREET/SE GRAND AVENUE	Traffic Signal	0.99 v/c	B	12	0.39	B	12	0.29

Note: Intersection operations are reported for the entire intersection at traffic signals and all-way stop intersections, and for the worst major street movement/worst minor street movement at two-way stop control intersections.

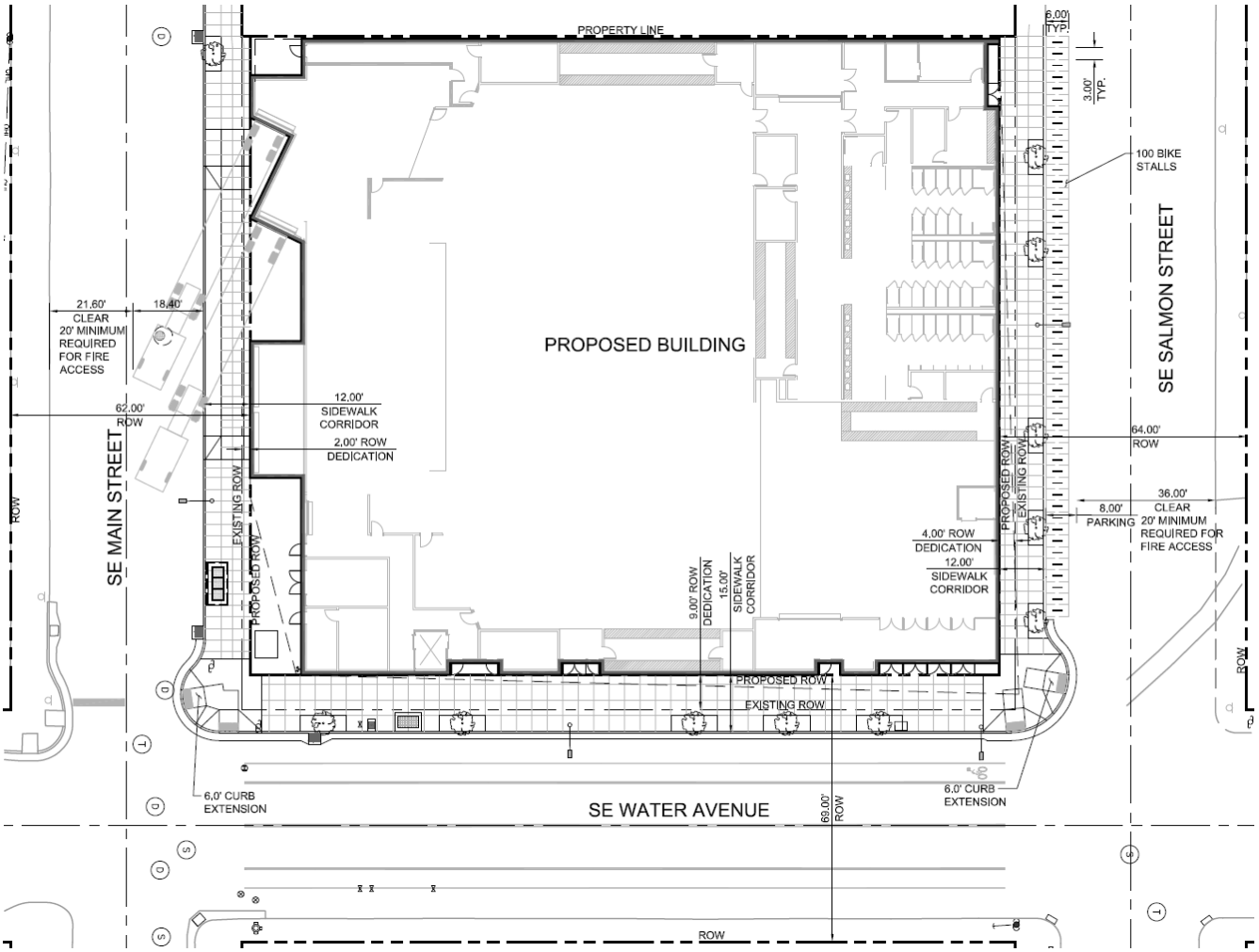
PROPOSED NEW DEVELOPMENT

This section outlines key assumptions and methodologies that will be used to analyze future 2025 build conditions and identify any potential impacts at study intersections triggered by the proposed venue.

PROPOSED VENUE

The proposed venue, shown in Figure 2, will consist of a new event venue with a capacity of 3,500 spectators, hosting concerts and other special events. The proposed use is Major Event Entertainment, which is a conditional use in the IG1 zone. The proposed building area will be approximately 59,000 gross square feet distributed over three stories. No vehicle parking is currently planned on site.

FIGURE 2: PROPOSED VENUE SITE PLAN



TRIP GENERATION

The estimated trips generated by the proposed venue will be based on programming information provided by the venue operator. The following assumptions are proposed to be used to generate vehicle trips from the proposed venue.

EVENT CHARACTERISTICS

According to the venue operator, the proposed venue will host approximately 110 concerts and 18 special events per year, for an estimated total of approximately 128 events annually (see Table 9). The proposed venue will have a maximum attendance capacity of approximately 3,500 people. Of the 110 concerts at the venue, an estimated 45 may sell up to the maximum capacity. The typical (i.e., average) attendance for concerts and special events will be 2,100 (i.e., assumed to be 60 percent of the maximum capacity) and 500 people, respectively.

Sold-out concerts require up to 350 employees, which includes 150 venue staff (i.e., 140 staff directly involved in the venue operation and 10 management staff), and up to 200 non-venue employees (e.g., staff of the artist's touring group, food and beverage staff, etc.). The average concert requires up to 250 employees, including 130 venue employees, and as many as 120 non-venue employees.

Events are primarily anticipated to occur during the weekday and weekend evening hours. Typically, the doors for concerts will open at 7:00 p.m. and the show will start at approximately 8:00 p.m. and conclude at approximately 11:00 p.m.

TABLE 9: EVENT CHARACTERISTICS OF PROPOSED VENUE

EVENT TYPE	TOTAL EVENTS	ATTENDANCE	WEEKDAY DAYTIME	WEEKDAY EVENING	WEEKEND EVENING
CONCERTS	**110**	2,100 (average) 3,500 (maximum)		X	X
SPECIAL EVENT	**18**	500	X	X	X
TYPICAL CONCERT SCHEDULE					
7:00 P.M.	Doors open to the venue				
8:00 P.M.	Concert begins (opening act)				
11:00 P.M.	Concert ends				

Source: Venue Operator, 2023

TOTAL TRIPS GENERATED BY SOLD-OUT EVENTS

The total estimated trips generated by the proposed venue during sold-out events (i.e., 3,500 attendees and 350 employees) are shown in Table 10. As shown, the proposed venue is expected to generate 1,935 pre-event peak trips and 2,975 post-event peak trips.

Pre-event peak hour attendee arrivals are estimated at 55 percent of total attendee arrivals (i.e., 1,925 attendees for a sold-out event), while post-event peak hour attendee departures are estimated at 83 percent of total attendee departures (i.e., 2,905 attendees for a sold-out event)[16].

Employee arrival and departure estimates are based on typical schedules provided by the venue operator. Venue operation staff typically arrive by 6:00 p.m. for evening events (i.e., before the pre-event peak hour) and work 5-to-6-hour shifts, departing after 11:00 p.m., with post-event peak hour departures estimated at 50 percent of total venue operation employee departures (i.e., 70 of the 140 venue operation employees for a sold-out event). Venue management staff work daily from 10:00 a.m. to 7:00 p.m., with all 10-management staff departing during the pre-event peak hour. All non-venue employees (i.e., 200 employees for a sold-out event) are assumed to arrive and depart outside of the pre-event and post-event peak hours.

TABLE 10: PEAK HOUR TRIPS FOR SOLD-OUT EVENTS

TRAVELER TYPE	PRE-EVENT PEAK HOUR (7-8 P.M.)			POST-EVENT PEAK HOUR (11 P.M. -12 A.M.)		
	IN	OUT	TOTAL	IN	OUT	TOTAL
ATTENDEES	1,925	0	1,925	0	2,905	2,905
EMPLOYEES	0	10	10	0	70	70
TOTAL	**1,925**	**10**	**1,935**	**0**	**2,975**	**2,975**

Source: Attendee arrival and departure information based on similar venues owned by the operator. Employee arrival and departure information based on typical schedules provided by the venue operator.

[16] Based on information provided by the venue operator from similar venues.

Mode Choice of Trips

Due to the proposed venue's location in the Central City, and proximity to multiple transit lines and high-quality pedestrian and bicycle facilities, 20 percent of the trips generated by the proposed venue were assumed to occur via transit (13 percent), walking (2 percent) or biking or e-scooter (5 percent), with the remaining 80 percent using private vehicles (50 percent) or ride hailing vehicles (30 percent). These mode choice estimates were based on data from similar event venues and assumptions utilized for OMSI Central City Master Plan[17]. Given the typical event will occur in the evening and conclude at approximately 11:00 p.m. or later, more of the trips are assumed to occur via private and ride hailing vehicles compared to assumptions utilized for the OMSI Central City Master Plan (i.e., 80 percent compared to 63 percent of the total trips), while fewer trips were assumed to occur via walking, biking or e-scooter (7 percent compared to 24 percent of the total trips). No adjustments were made to the assumed transit usage (i.e., 13 percent of the total trips).

As shown in Table 11, the proposed venue is estimated to generate 1,318 pre-event peak and 2,054 post-event peak trips, including 387 pre-event peak and 595 post-event peak transit, walking, biking, or e-scooter trips, and 931 pre-event peak and 1,459 post-event peak motor vehicle trips.

[17] Based on mode splits provided by the venue operator from similar event venues in Sacramento, California and Philadelphia, Pennsylvania, and modeling data provided by PBOT and resulting mode splits utilized for the OMSI Central City Master Plan. The OMSI Central City Master Plan assumed 63 percent of the total trips occur via private and ride hailing vehicles, while the estimates at similar event venues assume between 85 and 91 percent of the total trips occur via these modes. Transit ridership is assumed as 13 percent of the OMSI trips and up to 12 percent of the similar venue trips, while walking and biking were assumed as 24 percent of the OMSI trips and up to 3 percent of the similar venue trips.

TABLE 11: PEAK HOUR TRIPS BY MODE FOR SOLD-OUT EVENTS

TRAVELER TYPE	PRE-EVENT PEAK HOUR (7-8 P.M.)			POST-EVENT PEAK HOUR (11 P.M. -12 A.M.)		
	IN	OUT	TOTAL	IN	OUT	TOTAL
TOTAL ATTENDEE TRIPS **	**1,055**	**251**	**1,306**	**379**	**1,591**	**1,970**
TRANSIT TRIPS (13 PERCENT)	*250*	*0*	*250*	*0*	*378*	*378*
WALKING TRIPS (2 PERCENT)	*39*	*0*	*39*	*0*	*58*	*58*
BIKING/E-SCOOTER TRIPS (5 PERCENT)	*96*	*0*	*96*	*0*	*145*	*145*
*PRIVATE VEHICLE TRIPS (50 PERCENT) **	*418*	*0*	*418*	*0*	*632*	*632*
*RIDE HAILING VEHICLE TRIPS (30 PERCENT) **	*251*	*251*	*502*	*379*	*379*	*758*
TOTAL EMPLOYEE TRIPS **	**3**	**9**	**12**	**19**	**65**	**84**
TRANSIT TRIPS (13 PERCENT)	*0*	*1*	*1*	*0*	*9*	*9*
WALKING TRIPS (2 PERCENT)	*0*	*0*	*0*	*0*	*1*	*1*
BIKING/E-SCOOTER TRIPS (5 PERCENT)	*0*	*1*	*1*	*0*	*4*	*4*
*PRIVATE VEHICLE TRIPS (50 PERCENT) **	*0*	*5*	*5*	*0*	*32*	*32*
*RIDE HAILING VEHICLE TRIPS (30 PERCENT) **	*3*	*3*	*5*	*19*	*19*	*38*
TOTAL TRIPS (ATTENDEE AND EMPLOYEE)	**1,057**	**260**	**1,318**	**398**	**1,656**	**2,054**
TRANSIT TRIPS (13 PERCENT)	*250*	*1*	*252*	*0*	*387*	*387*
WALKING TRIPS (2 PERCENT)	*39*	*0*	*39*	*0*	*60*	*60*
BIKING/E-SCOOTER TRIPS (5 PERCENT)	*96*	*1*	*97*	*0*	*149*	*149*
*PRIVATE VEHICLE TRIPS (50 PERCENT) **	*418*	*5*	*423*	*0*	*663*	*663*
*RIDE HAILING VEHICLE TRIPS (30 PERCENT) **	*254*	*254*	*508*	*398*	*398*	*796*

Notes: * Average vehicle occupancy was estimated at 2.3 persons per vehicle for attendees and 1.1 persons per vehicle for employees.

** Estimates derived from information provided by the venue operator.

TRIP DISTRIBUTION

The motor vehicle trips generated by the proposed venue were distributed to the off-site study intersections based on percentages shown in Table 12 and Figure 3. The trip distribution was estimated based on the 2040 p.m. peak Metro travel demand model, with some adjustments to account for local network detail. For trips to the proposed venue, it is estimated that 30 percent will come from the north on I-5 or SE Martin Luther King Jr Boulevard, 20 percent from the south via I-5, 15 percent from the west via the Hawthorne Bridge or the Morrison Bridge, 15 percent from the east via SE Stark Street, SE Morrison Street or SE Madison Street, and 20 percent from the south via OR 99E, SE Division Street or SE Powell Boulevard. For trips leaving the proposed venue, it is estimated that 30 percent leave to the north on I-5 or SE Grand Avenue, 35 percent to the west via the Hawthorne Bridge or the Morrison Bridge, 15 percent to the east via SE Stark Street, SE Morrison Street or SE Madison Street, and 20 percent to the south via OR 99E, SE Division Street or SE Powell Boulevard.

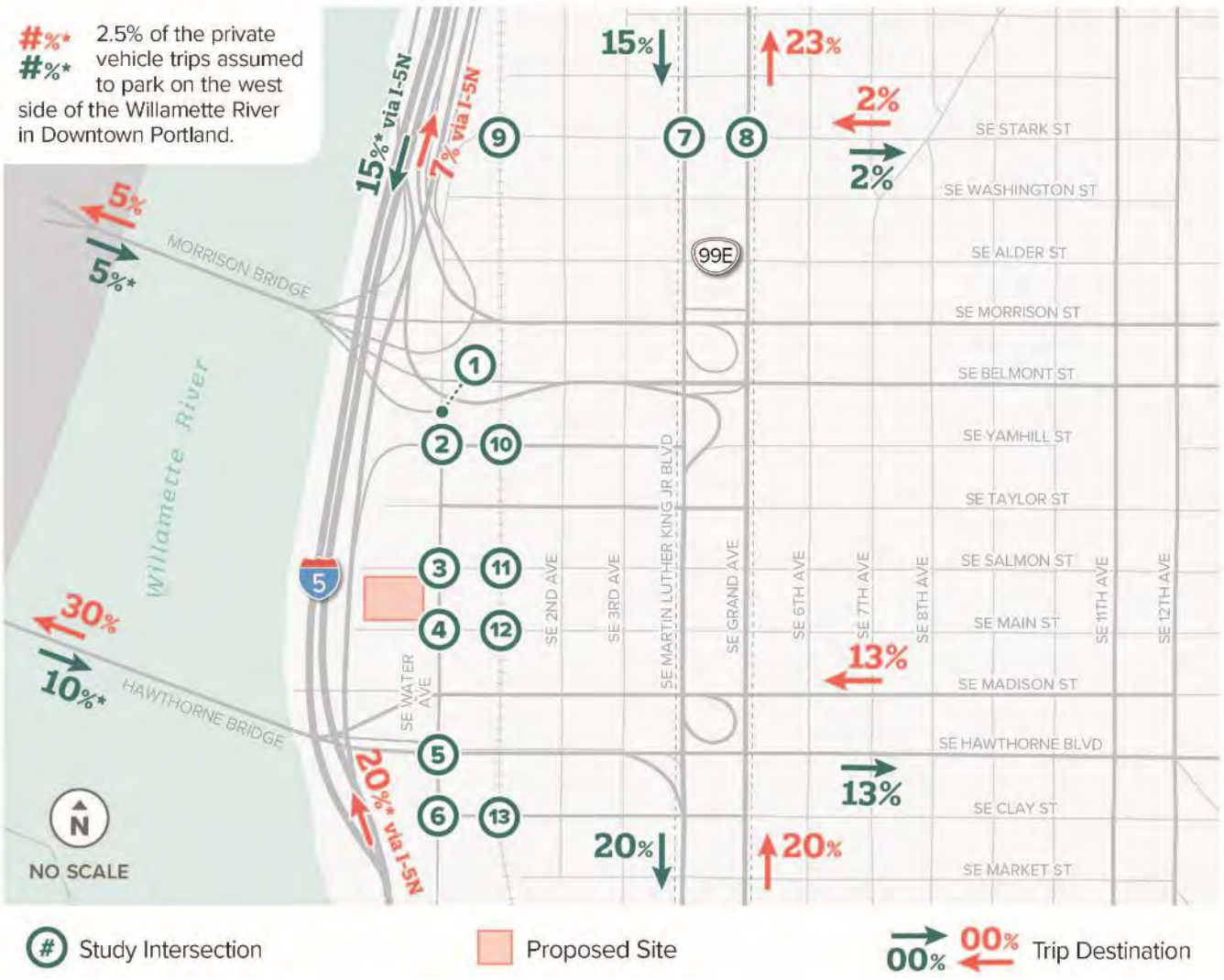
All of the peak hour ride hailing vehicle trips will begin or end at rider drop-off/pick-up points near the proposed venue. Private vehicle trips will begin or end at public parking locations, with 90 percent assumed to park on the east side of the Willamette River and 10 percent assumed to park on the west side of the Willamette River in Downtown Portland. Of the 10 percent of private vehicle trips parking on the west side, 5 percent are assumed to be trips to/from the north or south on I-5, and 5 percent from the west through Downtown Portland.

TABLE 12: TRIP DISTRIBUTION

ROUTE APPROACHING OR LEAVING THE PROPOSED VENUE	SHARE OF TRIPS TO PROPOSED VENUE	SHARE OF TRIPS LEAVING PROPOSED VENUE
NORTH (VIA SE MARTIN LUTHER KING JR BOULEVARD OR SE GRAND AVENUE)	15%	23%
NORTH (VIA I-5)	15%	7%
SOUTH (VIA I-5)	20%	0% *
WEST (VIA HAWTHORNE BRIDGE)	10%	30% *
WEST (VIA MORRISON BRIDGE)	5%	5%
EAST (VIA SE STARK STREET)	2%	2%
EAST (VIA OTHER STREET)	13%	13%
SOUTH (VIA OR 99E, SE DIVISION STREET OR SE POWELL BOULEVARD)	20%	20%
TOTAL	**100%**	**100%**

Notes: * Vehicles leaving the proposed venue have no direct access to southbound I-5 and are assumed to use the Hawthorne Bridge.

FIGURE 3: TRIP DISTRIBUTION



FUTURE 2025 BUILD CONDITIONS

This section summarizes Future Year 2025 Build conditions and identifies how transportation facilities will function in the future with the proposed venue. Included is a summary of future travel estimates, recommended on-site accommodations, and future build study intersection operational and queuing analysis.

FUTURE 2025 BUILD TRAVEL ESTIMATES

The following sections summarize the future 2025 Build travel estimates for motor vehicles, pedestrians, and bicycles, with the added trips from the proposed venue.

FUTURE 2025 BUILD MOTOR VEHICLE VOLUMES

The future 2025 build motor vehicle volumes consist of the existing traffic volumes and background traffic growth (see prior "Existing Motor Vehicle Volumes" and "Background Motor Vehicle Volume Growth" sections), with the added motor vehicle trips from the proposed venue (see prior "Trip Generation" section). The Existing, Future 2025 No Build, and Future 2025 Build motor vehicle volumes are summarized for pre-event peak hour in Figure 4 and Figure 5 and post-event peak hour in Figure 6 and Figure 7.

FUTURE BUILD 2025 PEDESTRIAN AND BICYCLE TRAVEL

The proposed venue is estimated to generate a significant amount of new walking and bicycling trips. These trips are expected to occur both as primary trips between nearby origins and destinations (e.g., residences, hotels, restaurants/bars), and as secondary trips at the beginning or end of trips from nearby existing private vehicle parking or transit stops. Table 13 shows that an estimated 387 pre-event peak and 595 post-event peak primary transit, walking, biking, or e-scooter trips generated by the proposed venue were assumed to occur between these nearby origins and destinations. This includes 68 pre-event peak and 104 post-event peak biking trips, 29 pre-event peak and 45 post-event peak e-scooter trips, 39 pre-event peak and 60 post-event peak walking trips, and 252 pre-event peak and 387 post-event peak transit trips.

TABLE 13: PRIMARY TRANSIT, WALKING, BIKING, AND E-SCOOTER TRIPS

	PRE-EVENT PEAK HOUR (7-8 P.M.)			POST-EVENT PEAK HOUR (11 P.M. -12 A.M.)		
	IN	OUT	TOTAL	IN	OUT	TOTAL
TOTAL PRIMARY TRANSIT, WALKING, BIKING AND E-SCOOTER TRIPS (ATTENDEE AND EMPLOYEE)	**385**	**2**	**387**	**0**	**595**	**595**
PRIMARY TRANSIT TRIPS (13 PERCENT)	*250*	*1*	*252*	*0*	*387*	*387*
PRIMARY WALKING TRIPS (2 PERCENT)	*39*	*0*	*39*	*0*	*60*	*60*
PRIMARY BIKING TRIPS (3.5 PERCENT)	*67*	*0*	*68*	*0*	*104*	*104*
PRIMARY E-SCOOTER TRIPS (1.5 PERCENT)	*29*	*0*	*29*	*0*	*45*	*45*

Higher pedestrian volumes are also expected on pedestrian facilities between the venue and nearby existing private vehicle parking, ride hailing or transit stops. These include sidewalks on SE Water Avenue, SE Salmon Street, SE Main Street, and the Eastbank Esplanade, as well as crossings at the SE Water Avenue/SE Salmon Street and SE Water Avenue/SE Main Street intersections.

The primary general admission entry point for the proposed venue will be located along the northeast corner of the building near the SE Water Avenue/SE Salmon Street intersection. Multiple general admission exit points will be located along the easterly face of the building to SE Water Avenue. A VIP entry and exit point will be located on the northwest corner of the building on SE Salmon Street. Prior to events, attendee queueing will be accommodated via the sidewalk along the SE Salmon Street and SE Water Avenue frontage of the venue.

The street frontages of the proposed venue will be improved to feature wider sidewalks, to include 12-foot sidewalk corridors on SE Main Street and SE Salmon Street, consistent with their local street designations in a Pedestrian District and a 15-foot sidewalk corridor along SE Water Avenue, consistent with its Major City Walkway and Neighborhood Main Street designations. Direct pedestrian connections are also available to the OMSI/Water transit station, downtown Portland and SE Water Avenue via walkways adjacent to streets and the Eastbank Esplanade.

Since bicycle trips occur over a longer distance, the new site generated bike trips (i.e., 68 pre-event peak and 104 post-event peak trips) were distributed based on the external bike routes and a similar distribution to the vehicle trips shown previously in Figure 3. Most cyclists are expected to utilize the Eastbank Esplanade, with 44 cyclists traveling along it towards the proposed venue during the pre-event peak hour and 68 cyclists traveling along it away from the proposed venue during the post-event peak hour. Cyclists are also expected to utilize the bike routes along SE Water Avenue (i.e., 13 pre-event peak and 21 post-event peak trips) and SE Salmon Street (i.e., 10 pre-event peak and 16 post-event peak trips) to travel to/from areas to the north and east of the proposed venue.

It is expected that cyclists will primarily access bike parking along SE Salmon Street given its designation as a Major City Bikeway or SE Main Street given its designation as a City Bikeway and their connections to the Eastbank Esplanade. Bike trips are estimated to account for 3.5 percent of the total trips for the proposed venue, meaning for a sold-out concert up to 135 bike parking spaces would be needed. Current bicycle parking standards require the proposed venue to provide 6 long-term and 32 short-term bicycle parking spaces (based on 1,280 seats)[18], or 97 fewer spaces than the estimated demand.

The City has two planned projects to enhance the bikeways on SE Water Avenue and SE Salmon Street adjacent to the proposed venue. These planned projects include a two-way cycle track on the west side of SE Water Avenue (i.e., along the frontage of the proposed venue) from SE Stark Street to SE Clay Street, and neighborhood greenway improvements along SE Salmon Street from the Eastbank Esplanade to SE 7th Avenue.

[18] Title 33 (33.266.200), based on the Major Event Entertainment use.

FIGURE 4: TRAVEL VOLUMES (PRE-EVENT PEAK HOUR)

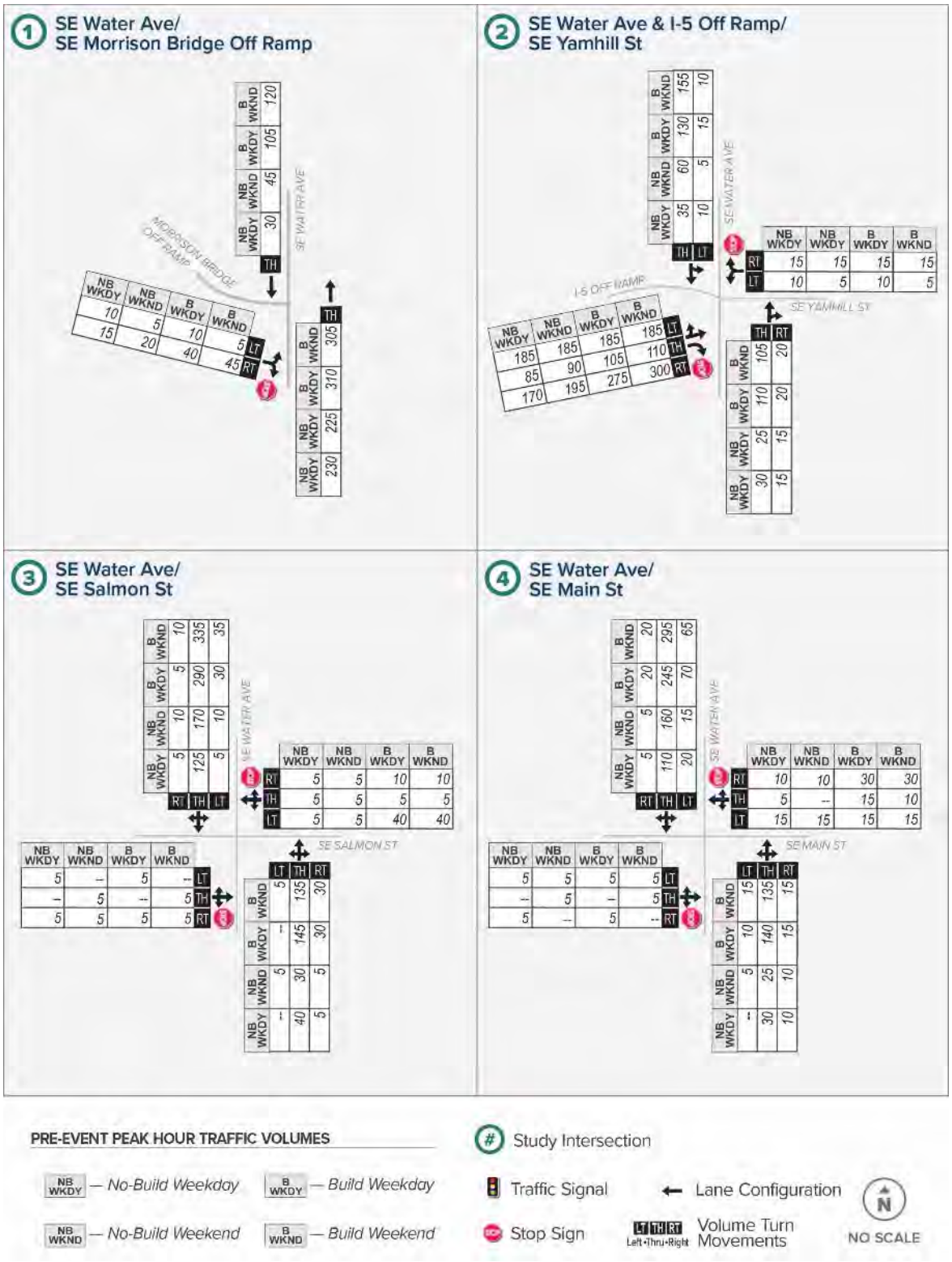


FIGURE 5: TRAVEL VOLUMES (PRE-EVENT PEAK HOUR)

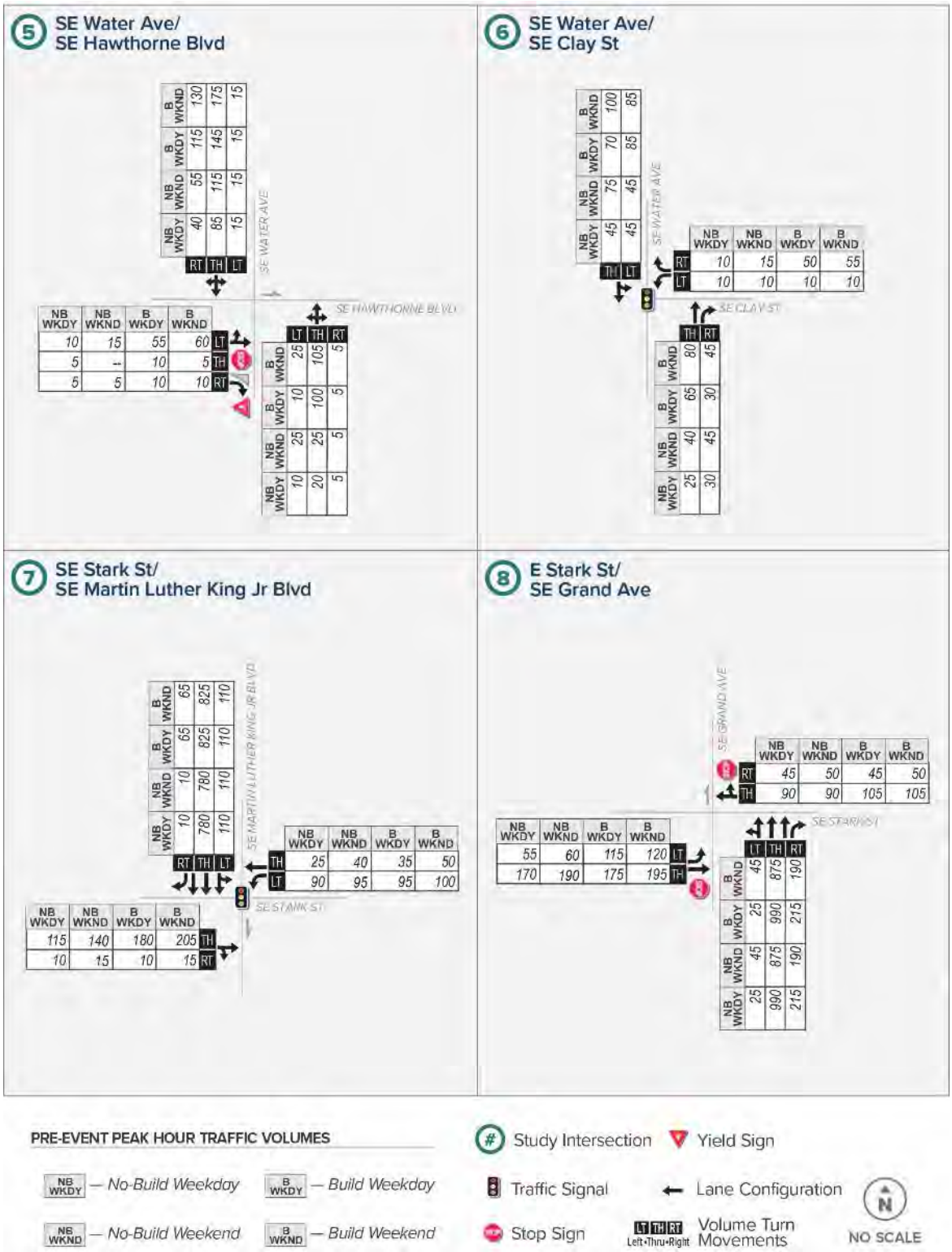


FIGURE 6: TRAVEL VOLUMES (POST-EVENT PEAK HOUR)

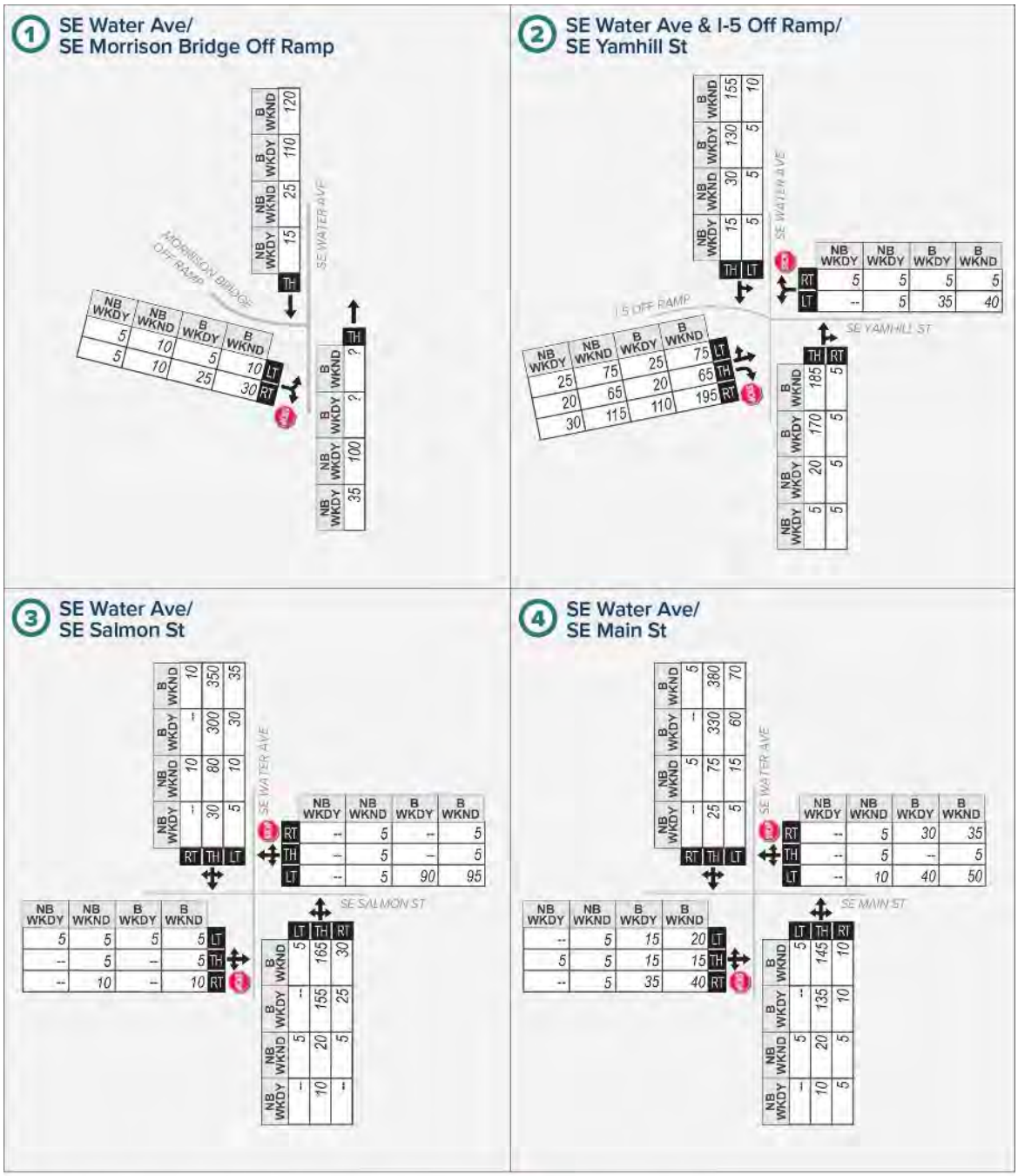
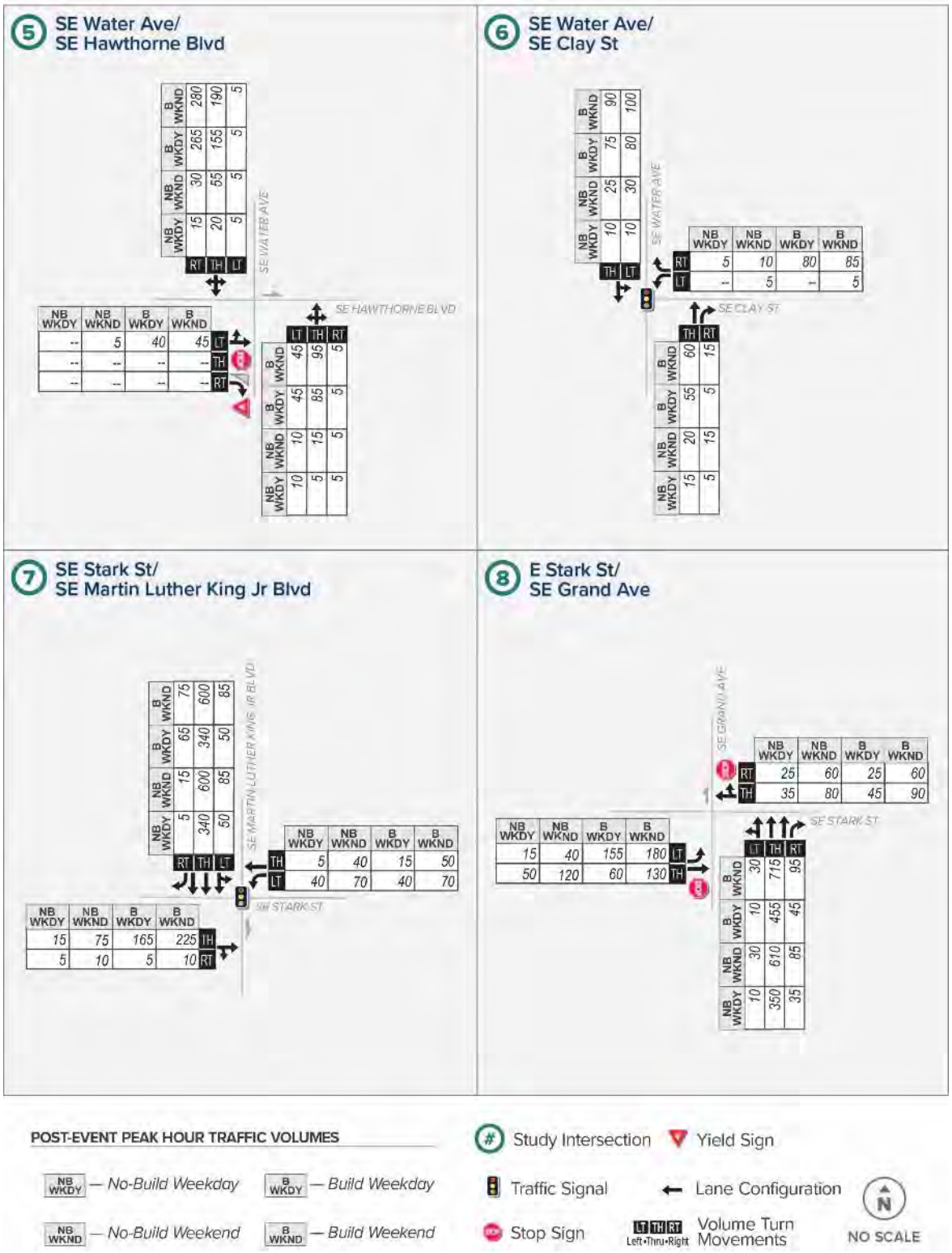


FIGURE 7: TRAVEL VOLUMES (POST-EVENT PEAK HOUR)



RIDE HAILING

The use of ride hailing services (e.g., Uber and Lyft) to and from events is currently estimated to be the preferred means of travel for 30% of attendees. This translates to an estimated 552 ride-hailing vehicles dropping off passengers at the venue during the pre-event period and picking them up during the post-event period, or 254 during the pre-event peak hour and 398 during the post-event peak hour. These trips would each be inbound and outbound, which would include vehicles pulling to and from the curb. However, given that attendees may occasionally stop for a meal or drink before or after an event, it is likely that some ride hail loading is happening in Downtown Portland and at businesses in the Central Eastside, and not solely right by the venue. Assuming 80% of these ride hailing trips occur near the venue during the post-event peak hour (which represents the busier of the two event peak hours with respect to ride hailing activity), this equates to about 5.3 pick-ups per minute during the one-hour period. Assuming an average curb dwell and loading time of 81 seconds for passenger pick-ups, an estimated 7 spaces or about 175 feet of total curb space would be needed to accommodate this unregulated peak pick-up activity for a sold-out event.

Special event loading zones could be implemented to allow for pre-event drop-off and post-event pick-up activity at locations surrounding the proposed venue, although the final locations are to be determined through future coordination with the venue operator, ride hailing companies and PBOT. Event loading zones should not be located along high traffic roadways or those with Major City Bikeway designations (i.e., SE Water Avenue, SE Salmon Street, SE Grand Avenue and SE Martin Luther King Jr Boulevard). These street segments can serve as “flex zones” that can also be used for on-street parking at times when large events at the proposed venue are not occurring.

TRUCK LOADING

The loading dock and staging area for the proposed venue will be located on SE Main Street along the south building frontage of the proposed venue, as shown in Figure 8. The truck loading dock will have two off-street loading bays, although truck staging will partially occur on-street. Immediate access to the truck loading dock and staging area will be provided via SE Main Street, just west of the intersection with SE Water Avenue. Loading is not allowed on the SE Water Avenue and SE Salmon Street frontages of the proposed venue given the Major City Bikeway designation that prohibits loading.

In general, trucks as large as WB-67 are expected to arrive at the venue between 7:00 a.m. and 12:00 p.m. and depart within two hours of the event conclusion. The venue will host approximately 100 concerts per year with large truck staging. For large events, two trucks and three buses are expected to be on-site during events. One bus may be staged along SE Main Street or on private property after drop-off (see Figure 10 for a potential location), and to the extent that a given show has more than one bus, the additional buses will be staged elsewhere on private property after drop-off.

Turning radius exhibits were evaluated for the inbound and outbound truck route to determine appropriate design widths (see Figure 8 and Appendix). Inbound trucks will need to execute a standard multi-point turn east of the SE Water Avenue/SE Main Street intersection and reverse

across SE Water Avenue and into the loading dock on SE Main Street with the assistance of flaggers. Outbound trucks will exit the loading dock directly onto SE Main Street towards the SE Water Avenue intersection. Conceptual traffic control plans were prepared for the proposed venue showing that up to four flaggers certified to hold traffic in the right-of-way will be needed to assist the inbound truck maneuver at the SE Water Avenue/SE Main Street intersection to ensure it can be done safely (see Figure 9 and Appendix). The number of certified flaggers needed will be confirmed during the angle loading permit and/or public works permitting process.

Turning radius exhibits were also evaluated for a scenario where trucks would travel through private property west of the proposed venue to approach the loading docks traveling eastbound on SE Main Street, however it was found that trucks would still need to enter the SE Water Avenue/SE Main Street intersection to reverse into the loading docks (see Appendix). In addition, this scenario is not feasible since it would require use of property not owned by the proposed venue.

SE Water Avenue is a Priority Truck Street and all remaining streets near the proposed venue include Freight District Street designations since the area is located within the Central Eastside Freight District. These designations require the streets to be designed to fully accommodate truck movements without impeding their mobility, although they must also be balanced with other street design considerations to fully accommodate all modes.

FIGURE 8: PROPOSED VENUE LOADING

Trucks Southbound on SE Water Avenue pulling into loading bays (WB-67)

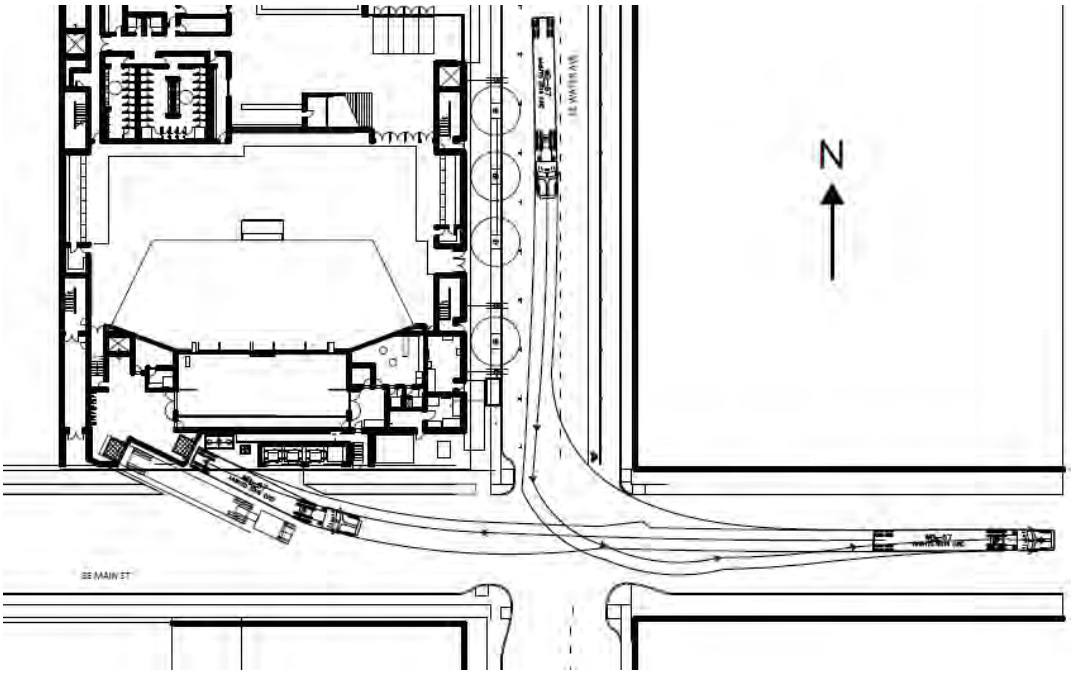
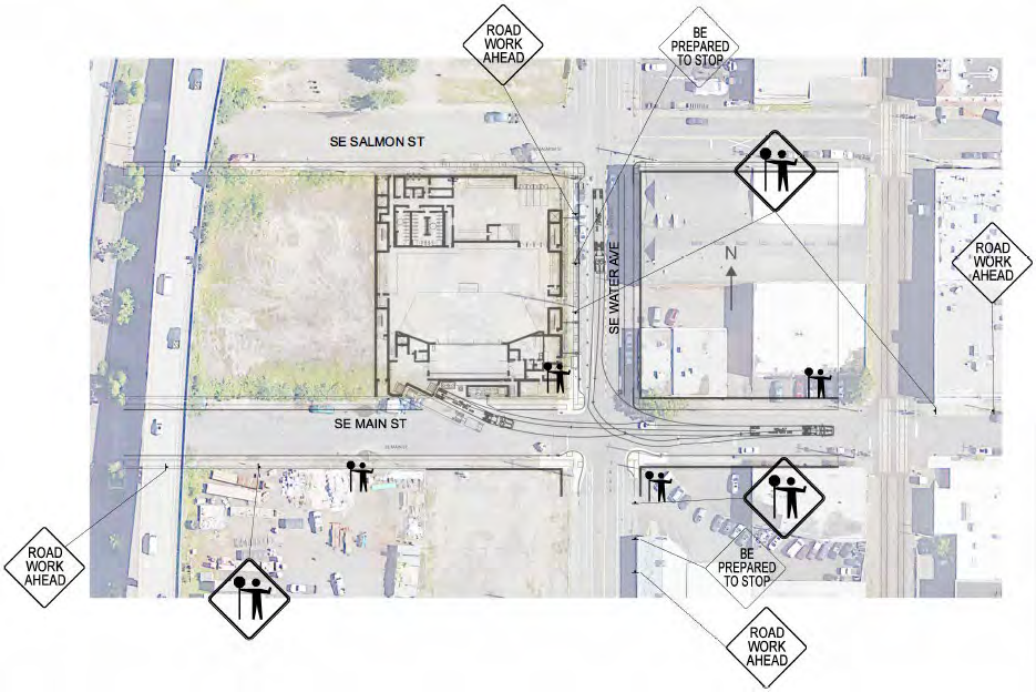


FIGURE 9: CONCEPTUAL FLAGGING OPERATIONS FOR TRUCK ARRIVALS



SE MAIN STREET WITH TRUCK STAGING PARTIALLY ON-STREET DURING EVENTS

The loading dock and staging area for the proposed venue will be located on SE Main Street along the south building frontage (see Figure 10). The truck loading dock will have two off-street loading bays, although truck staging will partially occur on-street during events, extending 18.4 feet into SE Main Street. As shown in Figure 11, the travelway width of SE Main Street will be impacted along an approximately 135-foot segment, although two-way travel and a minimum width of at least 21.6 feet (see Figure 12) and full access to the lots located to the west of the proposed venue will be maintained during events. Current volume data shows limited usage of this dead-end Local Service street, with no more than 21 trips an hour along this segment of SE Main Street. SE Main Street also does not include any Emergency Response, Major City Bikeway, or Major City Walkway designations.

An angle loading permit from PBOT will be required to accommodate the daily truck loading/unloading operations of the proposed venue. The events are usually designed around a truck size and while there will be trucks that are smaller than a WB-67, the venue will need to accommodate WB-67's for events. It is preferred that the trucks remain in place during events and depart after the event conclusion, however, it is possible as needed that the trucks could unload and leave the loading docks with the trailer still attached and return to the loading docks before the end of the show. However, that would require the reverse movement across SE Water Avenue to occur for a second time when the trucks return. Typically, a truck or trucks arrive at the dock prior to the end of the show so they can be loaded directly following the event. This usually occurs 30 minutes prior to show end so there is less interaction with the crowd. One example of this dynamic is at the Fillmore Auditorium Denver where the alley loading dock area is kept clear during the

show, with trucks parking on the street adjacent to the venue before moving back to the dock for load-out.

Conceptual temporary traffic control plans shown in Figure 13 (and included in the Appendix) were prepared to illustrate how vehicle, bike, and pedestrian travel will be maintained during the temporary partial street closure, including needed signage, on-street parking restrictions and lane travel paths. The preliminary plans recommend a semi-permanent swinging gate that can easily be closed to block the sidewalk and landscape area when trucks are parked at the loading docks and more clearly show pedestrians that the sidewalk is closed ahead (see Figure 13). Fully engineered temporary traffic control plans will need to be prepared during the future public works permitting process for the proposed venue, including coordination with PBOT on needed parking restrictions during the partial street closure. The preliminary plans in Figure 13 require the removal of eight 2-hour Visitor/ Permit Parking spots, which includes six along the frontage of the venue property and two along the frontage of the property to the south (see Figure 11). Prosper Portland is the owner of the adjacent property south across SE Main Street and has provided a letter indicating it has no objections to the proposed impact (included in the Appendix). The maneuvers east of Water Avenue shown in the conceptual truck movements are similar to those turns that occur throughout the Central Eastside Industrial District and are not expected to displace parking.

The preliminary plans also include a curb extension into SE Main Street (see Figure 10). The curb extension would shift the travelway slightly south for drivers heading westbound away from SE Water Avenue and would provide space for a tour bus to be staged on-street during events to the east of the loading dock for the proposed venue. Figure 11 also highlights the potential for the travelway to be reconfigured to the west of the loading dock for the proposed venue to include angled parking on the north side of SE Main Street. The angled parking will require the restriction of parking on the south side of SE Main Street but would help to shift the travelway south when truck staging will partially occur on-street during events and potentially make up for the lost parking noted above. The final design of the curb extension and overall street layout will be determined during the public works permitting process.

FIGURE 10: CONCEPTUAL VENUE LAYOUT WITH TRUCK STAGING PARTIALLY ON-STREET

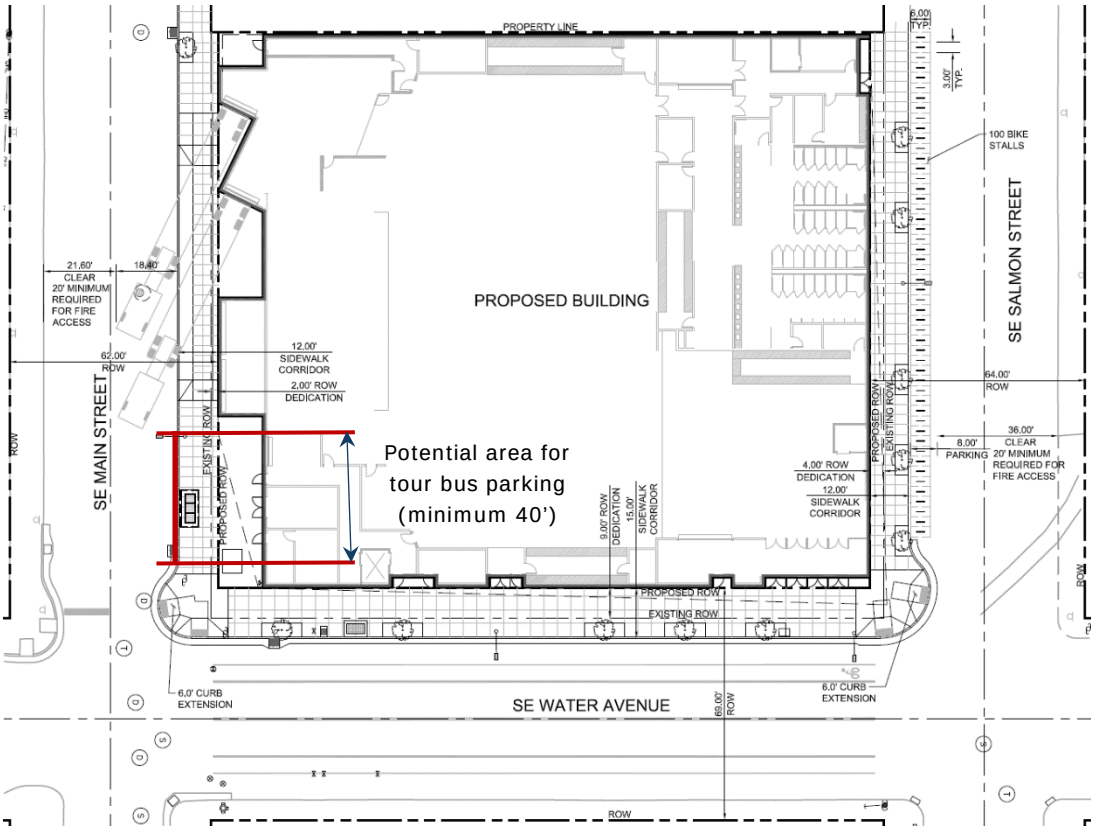


FIGURE 11: SE MAIN STREET IMPACTS WITH TRUCK STAGING PARTIALLY ON-STREET

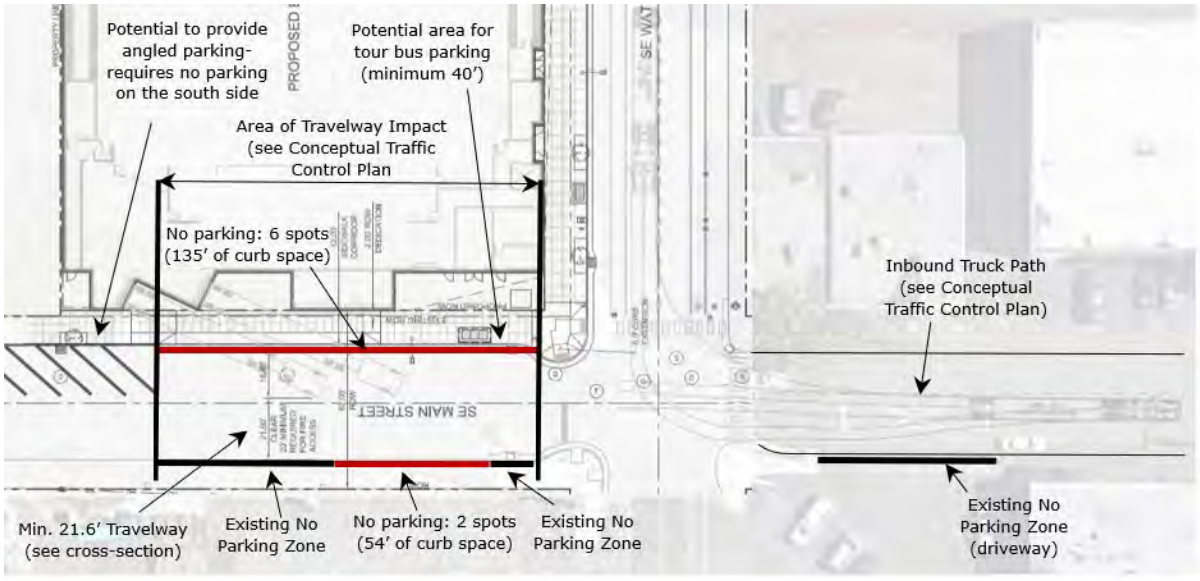


FIGURE 12: SE MAIN STREET CROSS-SECTION WITH TEMPORARY PARTIAL STREET CLOSURE

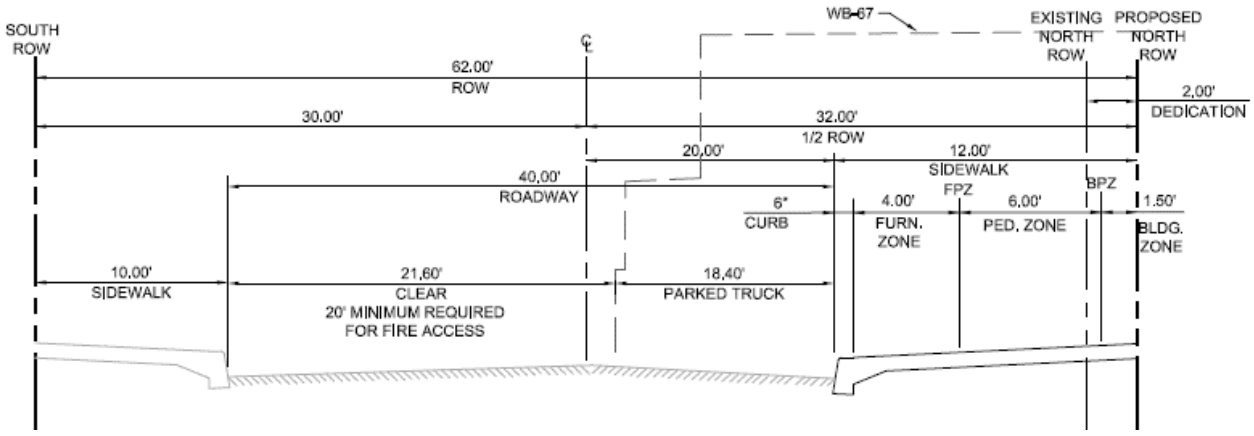
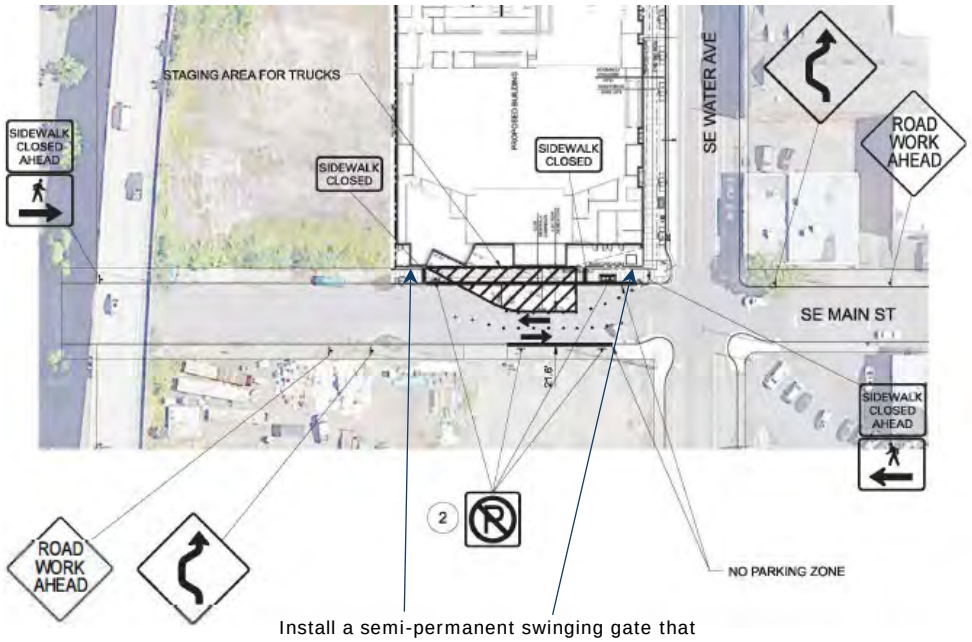


FIGURE 13: CONCEPTUAL TRAFFIC CONTROL PLAN



Install a semi-permanent swinging gate that can easily be closed to block the sidewalk and landscape area when trucks are parked at the loading docks (location and design to be determined during the public works process)

SE SALMON STREET CROSS-SECTION WITH BIKE PARKING

Bike parking is proposed on SE Salmon Street within the on-street parking lane along the frontage of the proposed venue (see Figure 10). This will provide space for up to 100 bike stalls instead of 5 to 6 on-street parallel parking spaces, while maintaining 36 feet for two-way travel on SE Salmon Street (see Figure 14). Long-term bike parking (11 spaces) will also be provided at the southwest corner of the proposed venue and accessed via a corridor connecting to SE Main Street (see Figure 15). A curb extension is recommended into SE Salmon Street adjacent to the bike parking (see Figure 10).

FIGURE 14: SE SALMON STREET CROSS-SECTION WITH BIKE PARKING

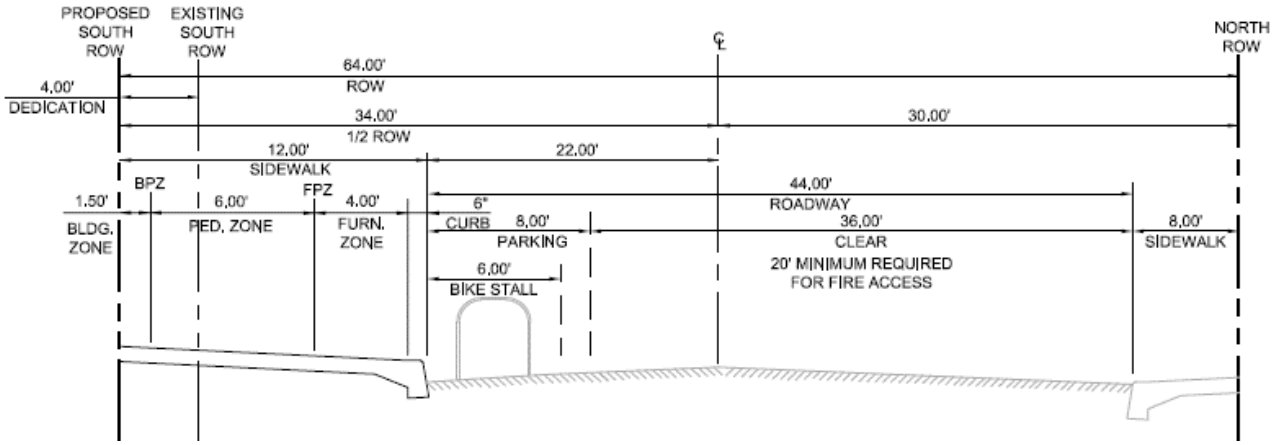
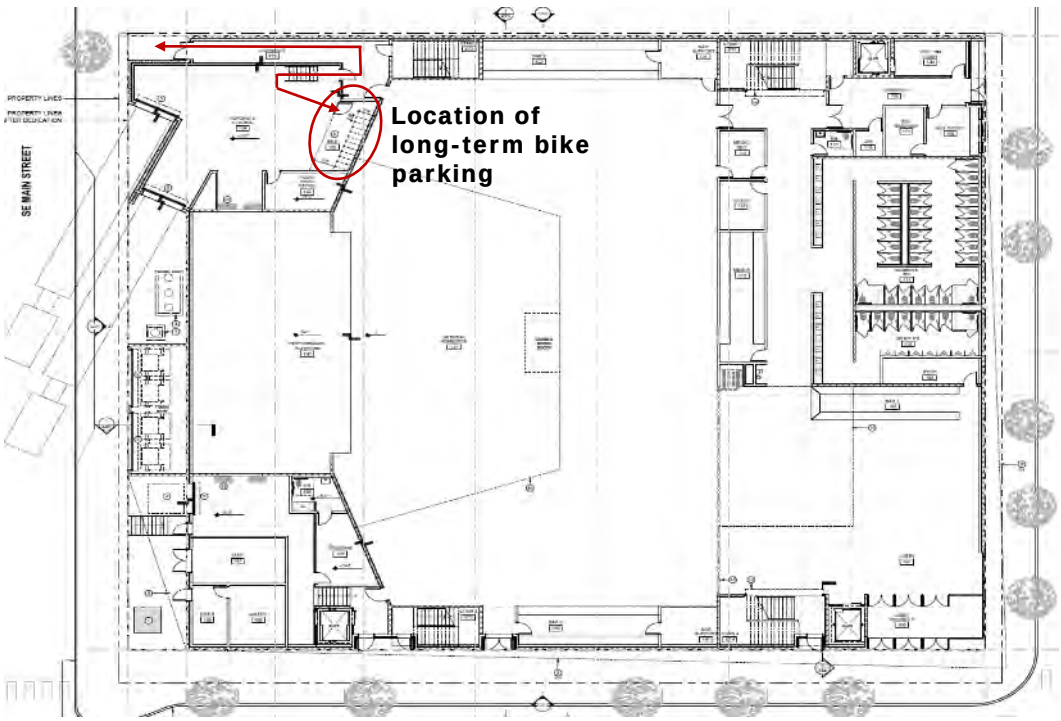


FIGURE 15: LOCATION OF LONG-TERM BIKE PARKING IN PROPOSED VENUE



PARKING

No off-street parking is proposed or required for the proposed venue, although a parking study was completed to better understand the availability and occupancy of the existing nearby on-street and off-street public parking. Parking surveys were conducted between 6:00 p.m. and 11:00 p.m. on a weekday (Thursday, July 27, 2023) and a weekend (Saturday, August 5, 2023) within a 0.25 mile or about a 10-minute walk of the proposed venue, which is generally considered a comfortable walking distance. This roughly includes the blocks bounded by the Willamette River to the west, SE Morrison Street to the north, SE Grand Avenue to the east and SE Clay Street to the south. On-street parking in the surveyed area is either permit parking (i.e., Zone G or Zone N permit) or available via a 2-hour time limit for non-permit holders and enforced on weekdays only from 7 a.m. to 6 p.m. in non-metered spots and 8 a.m. to 6 p.m. in metered spots. As shown in Table 14, about 1,318 parking spots were identified within the surveyed area, including 1,084 on-street parking stalls and 234 parking spots in public off-street lots (see Figure 16 and Figure 17). A maximum estimated parking occupancy for the entire surveyed area of 32 percent was observed during the weekday and 17 percent was observed during the weekend, both occurring in the 5:00 p.m. and 7:00 p.m. survey period.

TABLE 14: PARKING OCCUPANCY NEAR THE PROPOSED VENUE

LOCATION **	AVAILABLE PARKING	PRE-EVENT (5-7 P.M.) *		DURING EVENT (7-9 P.M.) *		POST-EVENT (9-11 P.M.) *	
		Occupied Stalls	Occupancy Percent	Occupied Stalls	Occupancy Percent	Occupied Stalls	Occupancy Percent
WEEKDAY							
TOTAL PARKING (ON STREET AND OFF-STREET) **	**1,318**	**419**	**32%**	**350**	**27%**	**236**	**18%**
TOTAL ON-STREET PARKING **	**1,084**	**343**	**32%**	**297**	**27%**	**205**	**19%**
WILLAMETTE RIVER TO SE GRAND AVENUE, AND SE MORRISON STREET TO SE YAMHILL STREET	*274*	*40*	*15%*	*34*	*12%*	*19*	*7%*
WILLAMETTE RIVER TO SE GRAND AVENUE, AND SE YAMHILL STREET TO SE SALMON STREET	*294*	*119*	*40%*	*112*	*38%*	*74*	*25%*
WILLAMETTE RIVER TO SE GRAND AVENUE, AND SE SALMON STREET TO SE MADISON STREET	*301*	*123*	*41%*	*101*	*34%*	*80*	*27%*
WILLAMETTE RIVER TO SE GRAND	*215*	*61*	*28%*	*50*	*23%*	*32*	*15%*

LOCATION **	AVAILABLE PARKING	PRE-EVENT (5-7 P.M.) *		DURING EVENT (7-9 P.M.) *		POST-EVENT (9-11 P.M.) *	
		Occupied Stalls	Occupancy Percent	Occupied Stalls	Occupancy Percent	Occupied Stalls	Occupancy Percent
AVENUE, AND SE MADISON STREET TO SE CLAY STREET							
TOTAL PUBLIC OFF-STREET **	**234**	**76**	**32%**	**53**	**23%**	**31**	**13%**
WEEKEND							
TOTAL PARKING (ON STREET AND OFF-STREET) **	**1,318**	**229**	**17%**	**193**	**15%**	**124**	**9%**
TOTAL ON-STREET PARKING **	**1,084**	**204**	**19%**	**175**	**16%**	**114**	**11%**
WILLAMETTE RIVER TO SE GRAND AVENUE, AND SE MORRISON STREET TO SE YAMHILL STREET	*274*	*27*	*10%*	*22*	*8%*	*16*	*6%*
WILLAMETTE RIVER TO SE GRAND AVENUE, AND SE YAMHILL STREET TO SE SALMON STREET	*294*	*87*	*30%*	*86*	*29%*	*47*	*16%*
WILLAMETTE RIVER TO SE GRAND AVENUE, AND SE SALMON STREET TO SE MADISON STREET	*301*	*65*	*22%*	*52*	*17%*	*37*	*12%*
WILLAMETTE RIVER TO SE GRAND AVENUE, AND SE MADISON STREET TO SE CLAY STREET	*215*	*25*	*12%*	*15*	*7%*	*14*	*7%*
TOTAL PUBLIC OFF-STREET **	**234**	**25**	**11%**	**18**	**8%**	**10**	**4%**

Notes: * The maximum estimated occupancy is reported for each period.

** The parking survey includes the blocks bounded by the Willamette River to the west, SE Morrison Street to the north, SE Grand Avenue to the east and SE Clay Street to the south.

In addition to the survey parking spots summarized above, approximately 5,000 additional on-street stalls within the Central Eastside Industrial District[19] and more than 1,500 additional spots in parking garages across the Hawthorne Bridge in Downtown Portland are within about a 0.50 mile walk from the proposed venue.

The parking occupancy was evaluated with the proposed venue in place during both a sold-out evening concert (i.e., 45 events per year with 3,500 attendees and 350 employees) and a weekday special event (i.e., 18 events per year with 500 attendees and 50 employees). The results shown in Table 15 and Table 16 are based on the parking surveys summarized earlier in this document which identified parking availability of 1,318 total spaces and estimated parking occupancy rates within 0.25 miles of the proposed venue.

Table 15 shows that a sold-out concert is estimated to generate demand for 915 parking spaces during both a weekday and weekend event, with attendee and employee arrivals occurring between 6:00 p.m. and 9:00 p.m.[20] and most assumed to use parking locations within 0.25 miles of the proposed venue (i.e., 763 of the 915 parking spaces)[21]. The total occupied parking spaces with the proposed venue is estimated to be highest between 8:00 p.m. and 9:00 p.m. during both a weekday and weekend event when the attendee and employee parking demand is at its highest (i.e., demand for 763 spaces within 0.25 miles of the proposed venue). The parking occupancy rate during this period is estimated to reach 82 percent during a weekday event (i.e., 1,074 parking spaces) and 71 percent during a weekend event (i.e., 930 parking spaces) for the 1,318 parking spaces within 0.25 miles of the proposed venue. The estimated parking occupancy rates between 6:00 and 8:00 p.m. are under 80 percent for a weekday event and under 70 percent for a weekend event.

TABLE 15: ESTIMATED PARKING DEMAND AND AVAILABILITY WITH A SOLD-OUT CONCERT

		WEEKDAY ARRIVAL TIME ***			WEEKEND ARRIVAL TIME ***		
		6-7 p.m.	7-8 p.m.	8-9 p.m.	6-7 p.m.	7-8 p.m.	8-9 p.m.
TOTAL ESTIMATED PARKING DEMAND (ATTENDEES AND STAFF) **	**915**	**421**	**418**	**76**	**421**	**418**	**76**
PARKING ON EAST SIDE OF RIVER, WITHIN .25 MILES OF SITE	*763*	*368*	*335*	*61*	*368*	*335*	*61*

[19] 2019 Central Eastside Industrial District Parking Assessment and Permit Analysis Summary, Rick Williams Consulting, June 5, 2019.

[20] Attendee arrivals are estimated at 35 percent between 6-7 p.m., 55 percent between 7-8 p.m. and 10 percent between 8-9 p.m., while 340 staff arrive by 6 p.m. and 10 staff arrive at 10 a.m.

[21] All employees and 80 percent of attendees are assumed to park within 0.25 miles of the proposed venue, with the remaining 20 percent of attendees parking more than 0.25 miles from the proposed venue elsewhere in the Central Eastside (10 percent) or on the west side of the Willamette River in Downtown Portland (10 percent).

		WEEKDAY ARRIVAL TIME ***			WEEKEND ARRIVAL TIME ***		
		6-7 p.m.	7-8 p.m.	8-9 p.m.	6-7 p.m.	7-8 p.m.	8-9 p.m.
PARKING ON EAST SIDE OF RIVER, MORE THAN .25 MILES FROM SITE	*76*	*27*	*42*	*8*	*27*	*42*	*8*
PARKING ON WEST SIDE OF WILLAMETTE RIVER	*76*	*27*	*42*	*8*	*27*	*42*	*8*
ATTENDEES PARKING DEMAND	**761**	**266**	**418**	**76**	**266**	**418**	**76**
PARKING ON EAST SIDE OF RIVER, WITHIN .25 MILES OF SITE (80%)	*609*	*213*	*335*	*61*	*213*	*335*	*61*
PARKING ON EAST SIDE OF RIVER, MORE THAN .25 MILES FROM SITE (10%)	*76*	*27*	*42*	*8*	*27*	*42*	*8*
PARKING ON WEST SIDE OF WILLAMETTE RIVER (10%)	*76*	*27*	*42*	*8*	*27*	*42*	*8*
STAFF PARKING DEMAND	**155**	**155**	**0 ***	**0**	**155**	**0 ***	**0**
PARKING ON EAST SIDE OF RIVER, WITHIN .25 MILES OF SITE (100%)	*155*	*155*	*0*	*0*	*155*	*0*	*0*
ESTIMATED PARKING OCCUPANCY RATE		32%	27%	24%	17%	15%	13%
ESTIMATED OCCUPIED PARKING WITHOUT THE PROPOSED VENUE		345	283 *	255 *	188	154 *	136 *
ESTIMATED TOTAL PARKING DEMAND OF PROPOSED VENUE		368	702	763	368	702	763
ESTIMATED OCCUPIED PARKING WITH PROPOSED VENUE		**787**	**1,047**	**1,074**	**597**	**890**	**930**
ESTIMATED OCCUPANCY RATE WITH PROPOSED VENUE		**60%**	**79%**	**82%**	**45%**	**68%**	**71%**

Source: DKS Associates field surveys.

Notes: The estimated parking availability (1,318 total parking spaces) and occupancy reported within 0.25 miles of the proposed venue.

* Five staff private vehicle trips departing between 7-8 p.m. were reduced from the occupied parking.

** A sold-out concert includes 3,500 attendees and 350 employees, with 50 percent of the total trips assumed to be via private vehicles, and an average vehicle occupancy estimated at 2.3 persons per vehicle for attendees and 1.1 persons per vehicle for employees. All staff and 80 percent of attendees are assumed to park within 0.25 miles of the proposed venue.

*** Attendee arrivals are estimated at 35 percent between 6-7 p.m., 55 percent between 7-8 p.m. and 10 percent between 8-9 p.m., while 340 staff arrive by 6 p.m. and 10 staff arrive at 10 a.m.

Table 16 shows that a weekday special event is estimated to generate demand for 131 parking spaces, with attendee and employee arrivals occurring between 12:00 p.m. and 3:00 p.m.[22] and all are assumed to use parking locations within 0.25 miles of the proposed venue. The total occupied parking spaces with the proposed venue is estimated to be highest between 1:00 p.m. and 2:00 p.m., when 1,135 parking spaces are utilized. This represents an 86 percent occupancy rate for the 1,318 parking spaces within 0.25 miles of the proposed venue. The estimated parking occupancy rates between 12:00 and 1:00 p.m. and are 2:00 and 3:00 p.m. are at or below 84 percent.

TABLE 16: ESTIMATED PARKING DEMAND AND AVAILABILITY WITH A WEEKDAY SPECIAL EVENT

		ARRIVAL TIME **		
		12-1 p.m.	1-2 p.m.	2-3 p.m.
TOTAL ESTIMATED PARKING DEMAND (ATTENDEES AND STAFF) *	**131**	**61**	**60**	**11**
ATTENDEES PARKING DEMAND	109	38	60	11
STAFF PARKING DEMAND	23	23	0	0
ESTIMATED PARKING OCCUPANCY RATE		78%	77%	74%
ESTIMATED OCCUPIED PARKING WITHOUT THE PROPOSED VENUE		841	835	801
ESTIMATED TOTAL PARKING DEMAND OF PROPOSED VENUE		61	121	131
ESTIMATED OCCUPIED PARKING WITH PROPOSED VENUE		**1,084**	**1,135**	**1,105**
ESTIMATED OCCUPANCY RATE WITH PROPOSED VENUE		**82%**	**86%**	**84%**

Source: DKS Associates field surveys and 2019 Central Eastside Industrial District Parking Assessment and Permit Analysis Summary, Rick Williams Consulting.

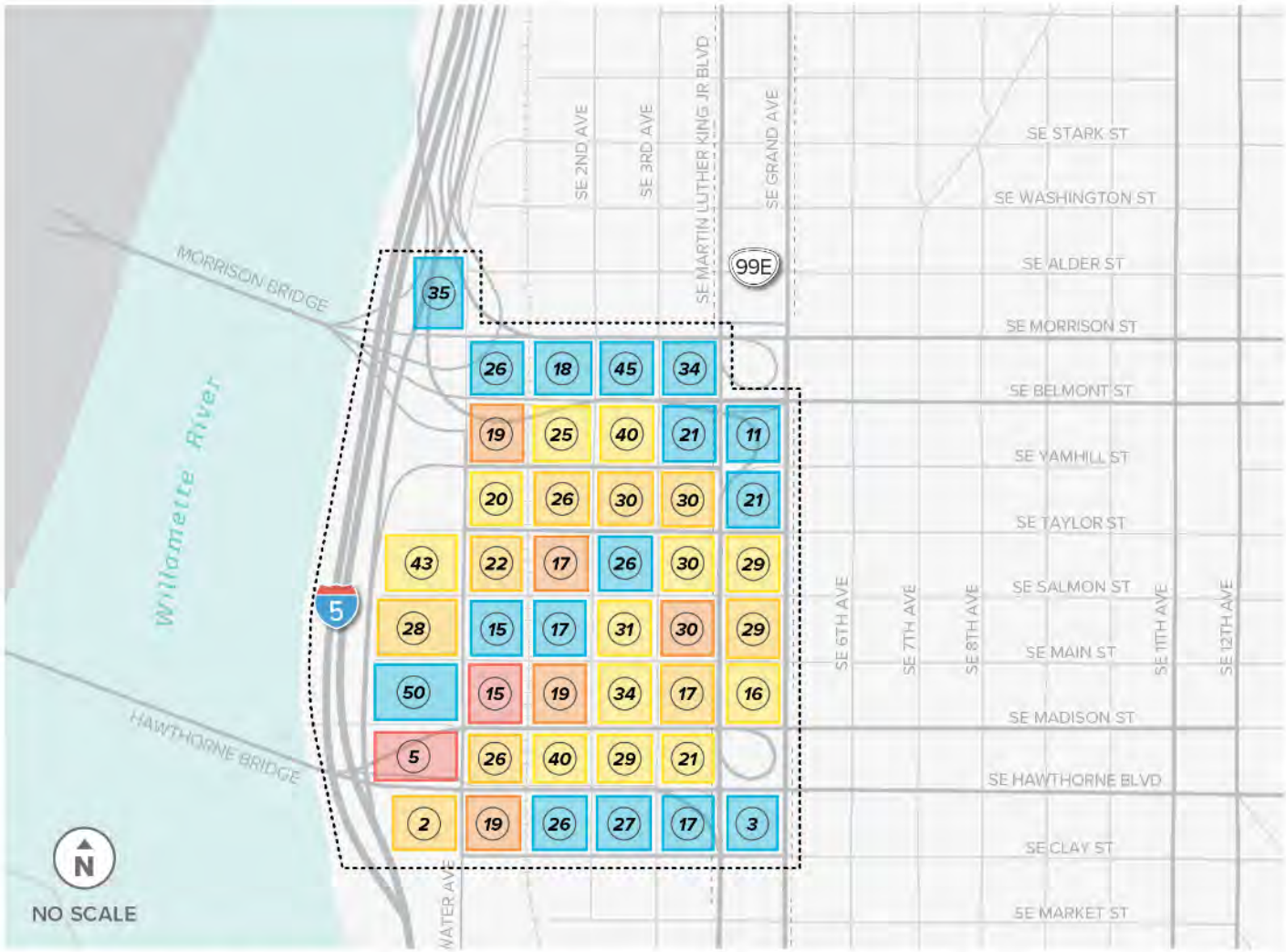
Notes: The estimated parking availability (1,318 total parking spaces) and occupancy reported within 0.25 miles of the proposed venue.

* A special event includes 500 attendees and 50 employees, with 50 percent of the total trips assumed to be via private vehicles, and an average vehicle occupancy estimated at 2.3 persons per vehicle for attendees and 1.1 persons per vehicle for employees. All attendees and staff for a weekday special event are assumed to park within 0.25 miles of the proposed venue.

** Attendee arrivals are estimated at 35 percent between 12-1 p.m., 55 percent between 1-2 p.m. and 10 percent between 2-3 p.m., while all 50 staff are assumed to arrive by 12 p.m.

[22] Attendee arrivals are estimated at 35 percent between 12-1 p.m., 55 percent between 1-2 p.m. and 10 percent between 2-3 p.m.; all 50 staff are assumed to arrive by 12 p.m.

FIGURE 16: PARKING SUPPLY AND OCCUPANCY - WEEKDAY



Parking Survey Boundary

(#) Total On-Street Parking Available

PERCENT OCCUPANCY

- < 20%
- 20% – 39%
- 40% – 59%
- 60% – 79%
- > 80%

AM WEEKDAY

Total Parking (On-Street and Off-Street): ***1,318***

Maximum Occupancy (Weekday):

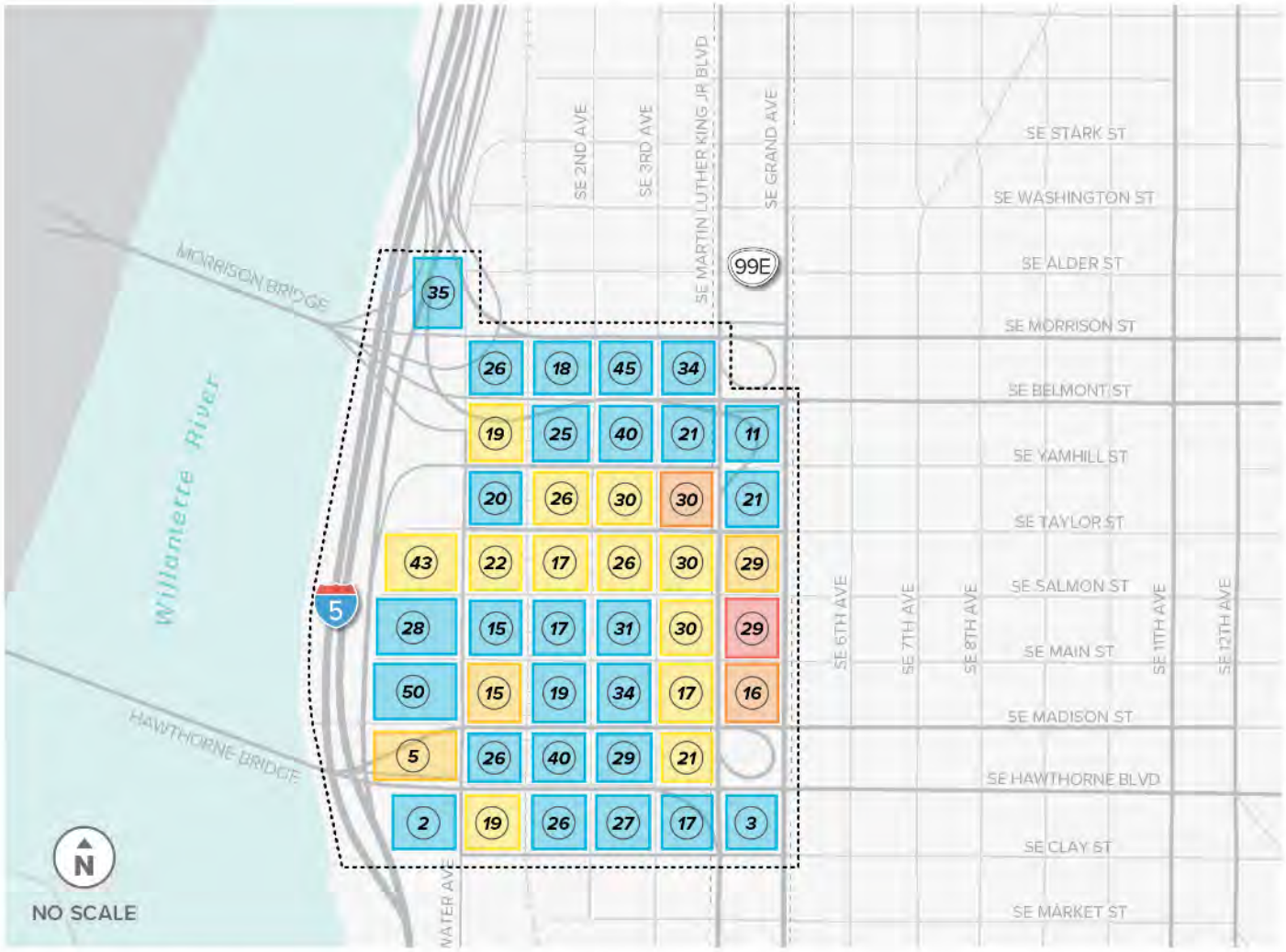
On-Street and Off-Street: ***32%***

On-Street: ***32%***

- SE Morrison Street to SE Yamhill Street: ***15%***
- SE Yamhill Street to SE Salmon Street: ***40%***
- SE Salmon Street to SE Madison Street: ***41%***
- SE Madison Street to SE Clay Street: ***28%***

Public Off-Street: ***32%***

FIGURE 17: PARKING SUPPLY AND OCCUPANCY - WEEKEND



Parking Survey Boundary

(#) Total On-Street Parking Available

PERCENT OCCUPANCY

- < 20%
- 20% – 39%
- 40% – 59%
- 60% – 79%
- > 80%

AM WEEKEND

Total Parking (On-Street and Off-Street): ***1,318***

Maximum Occupancy (Weekend):

On-Street and Off-Street: ***17%***

On-Street: ***19%***

- SE Morrison Street to SE Yamhill Street: ***10%***
- SE Yamhill Street to SE Salmon Street: ***30%***
- SE Salmon Street to SE Madison Street: ***22%***
- SE Madison Street to SE Clay Street: ***12%***

Public Off-Street: ***11%***

FUTURE 2025 BUILD STUDY INTERSECTION OPERATIONS

The Future 2025 Build study intersection capacity analysis results are summarized in Table 17. As was the case for the 2025 No-Build analysis, no changes were applied at study intersections to account for the previously identified planned improvements near the proposed venue since they are not likely to be fully funded and constructed by 2025. All study intersection configurations remain the same as Existing Conditions.

Table 17 shows the future 2025 intersection operations at study intersections, with the proposed venue. As shown, all study intersections are expected to continue to meet mobility targets despite the added traffic growth from the proposed venue through 2025. However, the v/c ratios are expected to increase up to 14 percent during the pre-event peak hour and up to 41 percent during the post-event peak hour. All intersections along SE Water Avenue are expected operate with a LOS C or better and with a v/c of 0.51 or less, while the signalized intersections at SE Stark Street/SE Grand Avenue and SE Stark Street/SE Martin Luther King Jr Boulevard operate with a LOS C or better and with a v/c of 0.55 or better. Detailed intersection operations calculation worksheets are included in the Appendix.

TABLE 17: FUTURE BUILD 2025 STUDY INTERSECTION OPERATIONS

STUDY INTERSECTION	TRAFFIC CONTROL	MOBILITY TARGET	PRE-EVENT PEAK HOUR (7-8 P.M.)			POST-EVENT PEAK HOUR (11 P.M. -12 A.M.)		
			LOS	DELAY	V/C	LOS	DELAY	V/C
WEEKDAY								
SE WATER AVENUE/SE MORRISON BRIDGE OFF RAMP	Two-Way Stop Control	LOS E	A/A	0/10	0.23/0.08	A/B	0/10	0.21/0.07
SE WATER AVENUE & I-5 OFF RAMP/SE YAMHILL STREET	All-Way Stop Control	0.85 v/c	B	14	0.49	B	10	0.33
SE WATER AVENUE/SE SALMON STREET	Two-Way Stop Control	LOS E	A/B	8/15	0.23/0.15	A/C	8/25	0.29/0.42
SE WATER AVENUE/SE MAIN STREET	Two-Way Stop Control	LOS E	A/B	8/14	0.12/0.15	A/C	8/22	0.34/0.32
SE WATER AVENUE/SE HAWTHORNE BOULEVARD	Two-Way Stop Control	LOS E	A/B	8/14	0.10/0.18	A/C	9/19	0.17/0.20
SE WATER AVENUE/SE CLAY STREET	Traffic Signal	LOS D	A	4	0.21	A	5	0.26
SE STARK STREET/SE MARTIN LUTHER KING JR BOULEVARD	Traffic Signal	0.99 v/c	C	23	0.52	B	16	0.30
SE STARK STREET/SE GRAND AVENUE	Traffic Signal	0.99 v/c	B	13	0.48	B	12	0.32
WEEKEND								

STUDY INTERSECTION	TRAFFIC CONTROL	MOBILITY TARGET	PRE-EVENT PEAK HOUR (7-8 P.M.)			POST-EVENT PEAK HOUR (11 P.M. -12 A.M.)		
			LOS	DELAY	V/C	LOS	DELAY	V/C
SE WATER AVENUE/SE MORRISON BRIDGE OFF RAMP	Two-Way Stop Control	LOS E	A/A	0/10	0.24/0.08	A/A	0/10	0.18/0.06
SE WATER AVENUE & I-5 OFF RAMP/SE YAMHILL STREET	All-Way Stop Control	0.85 v/c	B	14	0.51	B	11	0.32
SE WATER AVENUE/SE SALMON STREET	Two-Way Stop Control	LOS E	A/C	8/15	0.11/0.15	A/C	8/24	0.15/0.41
SE WATER AVENUE/SE MAIN STREET	Two-Way Stop Control	LOS E	A/C	8/16	0.11/0.03	A/C	8/21	0.11/0.32
SE WATER AVENUE/SE HAWTHORNE BOULEVARD	Two-Way Stop Control	LOS E	A/B	8/13	0.09/0.14	A/B	9/14	0.12/0.12
SE WATER AVENUE/SE CLAY STREET	Traffic Signal	LOS D	A	4	0.25	A	5	0.29
SE STARK STREET/SE MARTIN LUTHER KING JR BOULEVARD	Traffic Signal	0.99 v/c	B	13	0.55	B	12	0.39
SE STARK STREET/SE GRAND AVENUE	Traffic Signal	0.99 v/c	B	13	0.46	B	15	0.46

Note: Intersection operations are reported for the entire intersection at traffic signals and all-way stop intersections, and for the worst major street movement/worst minor street movement at two-way stop control intersections.

FUTURE 2025 QUEUING ANALYSIS

To supplement the HCM operations analysis performed at study intersections, queuing analysis was performed using SimTraffic. Table 18 and Table 19 present average and 95th percentile (reasonable worst-case) queues for Future No Build and Build conditions for the weekday and weekend pre-event and post-event peak hours. Queues that exceed the storage distance are bolded. Storage length is measured to the end of the turn pocket or to the next intersection. For the SE Water Avenue & I-84 Off Ramp the storage noted is less than or equal to the safe stopping distance per the Oregon Highway Plan. Detailed reports are included in the Appendix.

The study intersections along SE Water Avenue function well and are expected to operate better than their performance thresholds, and with minimal queuing. However, the 95th percentile queue for the eastbound movements at the SE Stark Street/SE Grand Avenue and the westbound movements at the SE Stark Street/SE Martin Luther King Jr Boulevard are forecasted to slightly exceed the available storage and approach the adjacent intersections given that these two intersections are only about 200 feet apart. This occurs in both the No-build and Build scenarios and could likely be mitigated with more responsive signal timing.

TABLE 18: FUTURE 2025 WEEKDAY STUDY INTERSECTION QUEUING ANALYSIS

INTERSECTION	MOVEMENT	STORAGE LENGTH (FT)	2025 NO BUILD		2025 BUILD	
			AVERAGE QUEUE (FT)	95TH PERCENTILE QUEUE (FT)	AVERAGE QUEUE (FT)	95TH PERCENTILE QUEUE (FT)
WEEKDAY PRE-EVENT PEAK HOUR (7-8 P.M.)						
SE WATER AVENUE/SE MORRISON BRIDGE OFF RAMP	EBLR	300	25	50	50	50
SE WATER AVENUE & I-5 OFF RAMP/SE YAMHILL STREET	EBLT	360	75	100	75	100
	EBR	300	50	75	75	100
	WBLTR	230	25	50	25	50
	NBTR	210	25	75	50	75
	SBLT	80	50	75	50	75
SE WATER AVENUE/SE SALMON STREET	EBLTR	350	25	25	25	50
	WBLTR	200	25	50	50	50
	NBLTR	200	0	0	25	25
	SBLTR	200	0	0	25	50
SE WATER AVENUE/SE MAIN STREET	EBLTR	350	25	50	25	50
	WBLTR	200	25	50	50	50
	NBLTR	200	0	0	25	25
	SBLTR	200	25	25	25	50
SE WATER AVENUE/SE HAWTHORNE BOULEVARD	EBLT	375	25	50	50	75
	EBR	100	0	0	0	0
	NBLTR	240	25	50	25	50
	SBLTR	210	25	25	0	0
SE WATER AVENUE/SE CLAY STREET	WBL	200	25	25	25	50
	WBR	200	25	25	25	75
	NBR	180	25	25	25	25
	SBLT	240	25	75	50	75
SE STARK STREET/SE MARTIN LUTHER KING JR BOULEVARD	WBL	80	75	**125**	75	**125**
	WBT	210	100	**225**	75	200
	SBR	260	25	50	50	75
SE STARK STREET/SE GRAND AVENUE	EBL	50	50	**100**	**75**	**100**
	EBT	210	150	**250**	**225**	**250**
	NBR	220	50	100	50	100
WEEKDAY POST-EVENT PEAK HOUR (11 P.M. -12 A.M.)						

INTERSECTION	MOVEMENT	STORAGE LENGTH (FT)	2025 NO BUILD		2025 BUILD	
			AVERAGE QUEUE (FT)	95TH PERCENTILE QUEUE (FT)	AVERAGE QUEUE (FT)	95TH PERCENTILE QUEUE (FT)
SE WATER AVENUE/SE MORRISON BRIDGE OFF RAMP	EBLR	300	25	25	25	50
SE WATER AVENUE & I-5 OFF RAMP/SE YAMHILL STREET	EBLT	360	25	50	25	50
	EBR	300	25	50	50	50
	WBLTR	230	25	50	25	50
	NBTR	210	25	50	50	75
	SBLT	80	25	50	50	75
SE WATER AVENUE/SE SALMON STREET	EBLTR	350	25	25	25	50
	WBLTR	200	0	0	50	75
	NBLTR	200	0	0	0	0
	SBLTR	200	25	25	25	50
SE WATER AVENUE/SE MAIN STREET	EBLTR	350	25	25	50	100
	WBLTR	200	0	0	50	75
	NBLTR	200	0	0	0	0
	SBLTR	200	0	0	25	50
SE WATER AVENUE/SE HAWTHORNE BOULEVARD	EBLT	375	0	0	25	50
	EBR	100	0	0	0	0
	NBLTR	240	25	25	50	125
	SBLTR	210	0	0	25	50
SE WATER AVENUE/SE CLAY STREET	WBL	200	0	0	0	0
	WBR	200	25	50	50	100
	NBR	180	25	25	0	0
	SBLT	240	0	0	50	100
SE STARK STREET/SE MARTIN LUTHER KING JR BOULEVARD	WBL	80	25	75	50	75
	WBT	210	25	25	25	50
	SBR	260	25	25	50	75
SE STARK STREET/SE GRAND AVENUE	EBL	50	25	**75**	**75**	**100**
	EBT	210	50	100	150	**250**
	NBR	220	25	25	25	50

TABLE 19: FUTURE 2025 WEEKEND STUDY INTERSECTION QUEUING ANALYSIS

INTERSECTION	MOVEMENT *	STORAGE LENGTH (FT)	2025 NO BUILD		2025 BUILD	
			AVERAGE QUEUE (FT)	95TH PERCENTILE QUEUE (FT)	AVERAGE QUEUE (FT)	95TH PERCENTILE QUEUE (FT)
WEEKEND PRE-EVENT PEAK HOUR (7-8 P.M.)						
SE WATER AVENUE/SE MORRISON BRIDGE OFF RAMP	EBLR	300	25	50	50	75
SE WATER AVENUE & I-5 OFF RAMP/SE YAMHILL STREET	EBLT	360	50	75	75	100
	EBR	300	50	75	75	100
	WBLTR	230	25	50	25	50
	NBTR	210	25	50	50	75
	SBLT	80	50	75	75	**100**
SE WATER AVENUE/SE SALMON STREET	EBLTR	350	25	50	25	50
	WBLTR	200	25	50	50	75
	NBLTR	200	25	25	25	50
	SBLTR	200	0	0	25	50
SE WATER AVENUE/SE MAIN STREET	EBLTR	350	25	50	25	50
	WBLTR	200	25	50	50	50
	NBLTR	200	0	0	25	50
	SBLTR	200	25	25	25	50
SE WATER AVENUE/SE HAWTHORNE BOULEVARD	EBLT	375	25	50	50	75
	EBR	100	0	0	0	0
	NBLTR	240	25	50	25	75
	SBLTR	210	25	25	25	25
SE WATER AVENUE/SE CLAY STREET	WBL	200	25	25	25	25
	WBR	200	50	125	50	100
	NBR	180	25	25	25	50
	SBLT	240	25	50	50	100
SE STARK STREET/SE MARTIN LUTHER KING JR BOULEVARD	WBL	80	75	**125**	**100**	**125**
	WBT	210	75	175	175	**300**
	SBR	260	0	0	25	75
SE STARK STREET/SE GRAND AVENUE	EBL	50	50	**100**	**75**	**100**
	EBT	210	150	**250**	200	**275**
	NBR	220	50	100	50	125
WEEKEND POST-EVENT PEAK HOUR (11 P.M. -12 A.M.)						

INTERSECTION	MOVEMENT *	STORAGE LENGTH (FT)	2025 NO BUILD		2025 BUILD	
			AVERAGE QUEUE (FT)	95TH PERCENTILE QUEUE (FT)	AVERAGE QUEUE (FT)	95TH PERCENTILE QUEUE (FT)
SE WATER AVENUE/SE MORRISON BRIDGE OFF RAMP	EBLR	300	25	50	50	50
SE WATER AVENUE & I-5 OFF RAMP/SE YAMHILL STREET	EBLT	360	50	50	50	75
	EBR	300	50	50	50	75
	WBLTR	230	25	50	25	75
	NBTR	210	25	50	50	75
	SBLT	80	25	50	50	75
SE WATER AVENUE/SE SALMON STREET	EBLTR	350	25	50	25	50
	WBLTR	200	25	50	50	75
	NBLTR	200	0	0	25	25
	SBLTR	200	0	0	25	50
SE WATER AVENUE/SE MAIN STREET	EBLTR	350	25	50	50	75
	WBLTR	200	25	50	50	100
	NBLTR	200	0	0	25	25
	SBLTR	200	25	25	25	50
SE WATER AVENUE/SE HAWTHORNE BOULEVARD	EBLT	375	25	50	25	50
	EBR	100	0	0	0	0
	NBLTR	240	0	0	25	50
	SBLTR	210	0	0	25	25
SE WATER AVENUE/SE CLAY STREET	WBL	200	25	50	25	25
	WBR	200	25	25	75	125
	NBR	180	0	0	25	25
	SBLT	240	25	25	25	75
SE STARK STREET/SE MARTIN LUTHER KING JR BOULEVARD	WBL	80	75	**100**	75	**125**
	WBT	210	25	75	50	100
	SBR	260	25	25	25	50
SE STARK STREET/SE GRAND AVENUE	EBL	50	50	**100**	**75**	**100**
	EBT	210	125	**225**	**225**	**275**
	NBR	220	25	50	25	75

* Note: EB=Eastbound, WB=Westbound, NB=Northbound, SB=Southbound, L=Left, T=Through, R=Right.

FUTURE FREIGHT TRAIN DELAY AND QUEUING

As noted earlier in this document, train movements, train switching and long train lengths along the Union Pacific railroad tracks east of SE Water Avenue near the proposed venue and areas to the north and south through the Central Eastside of Portland block the at-grade road, pedestrian and bikeway crossings at times during the day, making it difficult for people to get around them. This causes long delays for people, with vehicle queues observed during these blockages spilling back from the at-grade crossings onto SE Water Avenue, and onto side streets, most notably the I-5 Off-Ramp at SE Yamhill Street.

Passenger train service through the Central Eastside of Portland is provided via the Amtrak Cascades and Coast Starlight routes. Current schedules have six daily trains crossing near the proposed venue, including around 8:05 a.m., 11:10 a.m., 2:22 p.m., 3:40 p.m., 6:10 p.m. and 7:05 p.m. Freight trains generally do not run on set schedules; however, a 24-hour field survey was conducted at the SE Main Street rail crossing[23] which documented 23 total crossings, including 17 freight trains and 6 passenger trains (see Table 20). This field survey is generally consistent with the crossing inventory data available from the Federal Railroad Administration[24] and summarized earlier in this document. Average gate down times for the crossings were 10 minutes for freight trains and 45 seconds for passenger trains.

As summarized earlier in this document, events at the proposed venue are primarily anticipated to occur during the weekday and weekend evening hours, with attendee and employee arrivals generally occurring between 6:00 p.m. and 9:00 p.m. and departures between 10:00 p.m. and 1:00 a.m. which coincides with 2 scheduled passenger train crossings (i.e.., around 6:00 p.m. and 7:00 p.m.). While freight train activity is unscheduled, 2 freight crossings were recorded between 6:00 p.m. and 9:00 p.m. and 3 were recorded between 10:00 p.m. and 1:00 a.m. during the field survey.

[23] Rail crossing survey at SE Main Street conducted from 12:00 a.m. on Thursday July 13, 2023, to 12:00 a.m. on Friday July 14, 2023.

[24] Crossing Inventory Report, U.S. Department of Transportation, Federal Railroad Administration.

TABLE 20: TRAIN CROSSINGS NEAR THE PROPOSED VENUE

TRAIN TYPE	DOCUMENTED TRAIN CROSSINGS (SE MAIN STREET)							AVERAGE GATE DOWN TIME PER CROSSING
	TOTAL	12-4 A.M.	4-8 A.M.	8 A.M.-12 P.M.	12-4 P.M.	4-8 P.M.	8 P.M.-12 A.M.	
FREIGHT	**17**	5	1	2	3	2	4	10 min
PASSENGER	**6**			2	2	2		45 sec
TOTAL	**23**	**5**	**1**	**4**	**5**	**4**	**4**	7 min 36 sec

Source: DKS Associates field surveys.

The City of Portland will soon be initiating a study of the Central Eastside Rail Crossings to consider solutions that could potentially address the vehicle delay and queuing spillback from the public crossings east of SE Water Avenue. As part of the study, the City could consider an Advance Warning to Avoid Railroad Delay (AWARD) system at key decision points along nearby roadways. A potential location might be along I-84 before the SE Water Avenue exit (i.e., Central Eastside Industrial District exit). The purpose of an AWARD system is to provide advance information on train crossings to travelers, so they choose to use an alternative route before they reach the crossing blockage. The system is non-intrusive to railroad right-of-way and would not directly interface with railroad equipment, and has been successfully implemented, with average crossing delay decreased by 16-19 percent with successful driver diversion to alternate routes[25]. Any consideration of this system would need more extensive study to consider all possible options and weigh benefits and shortfalls and would need approval by the Region Traffic and State Highway Engineers.

TRANSPORTATION SYSTEM RECOMMENDATIONS

Transportation improvements needed to support the proposed venue by 2025 are summarized in Table 21. Several projects were identified in previous studies or plans surrounding the proposed venue. Since the need for these improvements are driven by regional traffic issues and are not directly caused by growth associated with the proposed venue, they are shown in Table 21 as not being triggered by project trips.

At the time of implementation, any proposed mitigations at intersections under ODOT jurisdiction (including the SE Water Avenue & I-84 Off Ramp/SE Yamhill Street intersection) will need to do a Traffic Control Evaluation and be approved by the Region Traffic Engineer and State Highway Engineer. In addition, due to the adjacent rail crossing at the east leg of several of the

[25] Federal Highway Administration. 2001. Intelligent Transportation Systems at Highway-Rail Intersections, FHWA-OP-01-149.

intersections along SE Water Avenue, coordination will be required with the ODOT Rail Crossing Safety Section before any improvements or modifications occur.

A transportation and parking demand management plan was also prepared for the proposed venue consistent with Portland City Code 17.107 and is included in the Appendix. The purpose of the plan is to reduce the impact of events on the transportation system and provide employees and attendees with information and incentives to use transportation methods other than single occupancy vehicles. The plan provides strategies to increase the transit, walking, and biking travel options, along with traffic management techniques to ensure that people who travel via motor vehicle effectively navigate to their parking, drop-off, or pick-up location with fewer delays than what would occur under an unmanaged setting.

TABLE 21: RECOMMENDED TRANSPORTATION SYSTEM IMPROVEMENTS

ID	LOCATION	RECOMMENDED IMPROVEMENT	DEVELOPMENT TRIGGER
Study Intersection Improvements			
1	SE WATER AVENUE & I-5 OFF RAMP/SE YAMHILL STREET	Provide a traffic signal with queue detection and/or advanced warning (Financially Constrained TSP Project and Transportation System Development Charge Project ID 20187). As part of Project ID 10, the east leg of this intersection is to be converted to one-way travel*.	N/A. Need is not triggered by the project trips
Corridor Improvements			
2	SE WATER AVENUE ALONG THE SITE FRONTAGE	Provide half street improvements.	Project trips
3	SE SALMON STREET ALONG THE SITE FRONTAGE	Provide half street improvements.	Project trips
4	SE MAIN STREET ALONG THE SITE FRONTAGE	Provide half street improvement.	Project trips
5	SE WATER AVENUE & SE SALMON STREET	Provide a curb extension into SE Salmon Street at the southwest corner of the intersection.	Project trips
6	SE WATER AVENUE & SE MAIN STREET	Provide a curb extension into SE Main Street at the northwest corner of the intersection; requires removal of the existing curb extension into SE Water Avenue to support the future cycle track.	Project trips

ID	LOCATION	RECOMMENDED IMPROVEMENT	DEVELOPMENT TRIGGER
7	SE WATER AVENUE FROM SE STARK STREET TO SE CLAY STREET	Enhance the existing bikeway to include a two-way cycle track (Financially Constrained TSP Project ID 20075). Two-way cycle track included as part of Project 14 in the Central City in Motion Implementation Plan.	N/A. Need is not triggered by the project trips
8	SE SALMON STREET FROM THE EASTBANK ESPLANADE TO SE 7TH STREET	Provide neighborhood greenway improvements (Financially Constrained TSP Project ID 20174). Project is included as part of Project 9 in the Central City in Motion Implementation Plan.	N/A. Need is not triggered by the project trips
9	CENTRAL EASTSIDE ACCESS AND CIRCULATION ENHANCEMENTS	Improve access and circulation in the Central Eastside by adding new signals and crossings at Hawthorne & Clay ramp, Salmon & Grand, Salmon & MLK, Washington & Grand, Washington & MLK, Ankeny & MLK, Ankeny & Sandy, 16th & Irving, modifying signals at Stark & Grand, Clay & Grand, Mill & MLK, and reconstructing SE Clay St from Water to Grand. (Financially Constrained TSP Project ID 20205). This project is also included on the Citywide Transportation System Development Charge (TSDC) project list at 46 percent eligible (TSDC Project ID 20205).	N/A. Need is not triggered by the project trips
10	SE STARK STREET AND SE WASHINGTON STREET FROM SE WATER AVENUE TO SANDY BOULEVARD	Improve freight and bicycle connectivity and mobility by reconfiguring traffic flow and turning movements on SE Stark and SE Washington Streets (Financially Constrained TSP Project ID 20073). Requires signals and/or crossings at SE Grand and SE MLK as part of the Central Eastside Access and Circulation Enhancements (Project ID 8).	N/A. Need is not triggered by the project trips
11	SE YAMHILL/SE TAYLOR FROM SE WATER AVENUE TO SE GRAND AVENUE	Convert SE Yamhill Street and SE Taylor Street to one-way couplet operation between SE Water Avenue and SE Grand Avenue (Financially Constrained TSP Project ID 20184).	N/A. Need is not triggered by the project trips

Note: * Intersection is under ODOT jurisdiction; At the time of implementation, any recommended mitigations will need to do a Traffic Control Evaluation and be approved by the Region Traffic and State Highway Engineers.

FINDINGS AND CONCLUSIONS: APPROVAL CRITERIA

The following sections summarize the overall findings, which demonstrate that with recommended mitigation measures in place, the conditional use land use application for the proposed venue complies with the transportation-related approval criteria of Portland Zoning Code, Chapter 33.815 Conditional Uses.

- **Section 33.815.215.A (1) – The proposed use is in conformance with the street designations shown in the Transportation Element of the Comprehensive Plan.**

The proposed venue will conform with the existing street designations summarized in Table 1. SE Water Avenue is classified as a Traffic Access Street and includes a Priority Truck Street designation. SE Salmon Street and SE Main Street are classified as Local Service Traffic Streets and include Freight District Street designations since the area is located within the Central Eastside Freight District. These streets will continue to fully accommodate truck movements without impeding their mobility and will fully accommodate all modes. Designated truck loading areas will be provided along SE Main Street and have been sited away from the primary pedestrian and bike routes along SE Water Avenue and SE Salmon Street.

The street frontages of the proposed venue will be improved to feature wider sidewalks corridors on SE Main Street and SE Salmon Street, consistent with their local street designations in a Pedestrian District and along SE Water Avenue, consistent with its Major City Walkway and Neighborhood Main Street designations.

Cyclists are expected to utilize the Eastbank Esplanade and Major City Bikeways along SE Water Avenue and SE Salmon Street, or City Bikeway along SE Main Street to travel to/from areas surrounding the proposed venue.

- **Section 33.815.215.A (2) – If the proposed use will be located in an industrial zone, it will not have a significant adverse effect on truck and freight movement.**

The proposed venue is not expected to significantly impact truck movement and will protect the important freight connection between the Central Eastside and nearby regional truck routes along Interstate 5 and OR 99E. SE Water Avenue is a Priority Truck Street and all remaining streets near the proposed venue include Freight District Street designations since the area is located within the Central Eastside Freight District. These streets will continue to fully accommodate truck movements without impeding their mobility, although they will fully accommodate all modes particularly with pedestrians and cyclists crossing SE Water Avenue at the SE Salmon Street intersection, which is a Major City Walkway and Major City Bikeway. The loading dock and staging area for the proposed venue will be located away from the SE Water Avenue Priority Truck Street to allow efficient passage for large vehicles. In general, trucks as large as WB-67 are expected to arrive at the venue between 7:00 a.m. and 12:00 p.m. and depart within two hours of the event conclusion. Turning radius exhibits were evaluated for the inbound and outbound truck route to determine appropriate design widths. Conceptual traffic control plans were prepared for the proposed venue showing that four flaggers will be needed to assist the inbound truck maneuver at the SE Water Avenue/SE Main Street intersection to ensure it can be done safely.

- **Section 33.815.215.A (3) (a) – The transportation system is capable of supporting the proposed use in addition to the existing uses in the area. Evaluation factors include safety, street capacity, level of service, connectivity, transit availability, availability of pedestrian and bicycle networks, on-street parking impacts, access restrictions, neighborhood impacts, impacts on pedestrian, bicycle, and transit circulation. Evaluation factors may be balanced; a finding of failure in one or more factors may be acceptable if the failure is not a result of the proposed development, and any additional impacts on the system from the proposed development are mitigated.**

The Transportation Impact Study found that with the recommended improvements, the transportation system will be capable of safely supporting the proposed venue, in addition to accommodating the existing uses. The proposed venue is very accessible to pedestrians and bicyclists and is well-served by a network of continuous sidewalks and bike facilities on the surrounding streets between nearby existing private vehicle parking, bike parking, ride hailing or transit stops. The proposed venue is also adjacent to existing bikeways along the Eastbank Esplanade, SE Water Avenue and SE Salmon Street.

Current transit service near the proposed venue is primarily accessed via stops located on SE Grand Avenue and SE Martin Luther King Jr Boulevard between SE Salmon Street and SE Taylor Street, on the SE Madison Street and SE Hawthorne Boulevard viaducts (accessed via stairs from SE Water Avenue), on the SE Morrison Street and SE Belmont Street viaducts (accessed via stairs from SE Water Avenue), along SW 1st Avenue in downtown Portland across the Morrison Bridge, and near SE Tilikum Way. Event attendees and employees who utilize transit for travel to and from the venue would primarily utilize SE Water Avenue, SE Salmon Street and the Eastbank Esplanade to access transit services before and after events. Current schedules indicate that the TriMet Routes 6, 14 and 15 and MAX light-rail service near the proposed venue extends beyond the conclusion of a typical event (i.e., expected to be 11:00 p.m. or later for most events).

The system evaluation found no street capacity or level of service impacts with the proposed venue, as shown in Table 17, 18 and 19. Existing train movements, train switching and long train lengths along the Union Pacific railroad tracks east of SE Water Avenue near the proposed venue and areas to the north and south through the Central Eastside of Portland block the at-grade road, pedestrian and bikeway crossings at times during the day, making it difficult for people to get around them. This causes long delays for people, with vehicle queues observed during these blockages spilling back from the at-grade crossings onto SE Water Avenue, and onto side streets, most notably the I-5 Off-Ramp at SE Yamhill Street. The City of Portland will soon be initiating a study of the Central Eastside Rail Crossings to consider solutions that could potentially address the vehicle delay and queuing spillback from the public crossings east of SE Water Avenue.

Improvements to adjacent street frontages will occur and a transportation and parking demand management plan prepared for the proposed venue will enhance access, safety and function for users of all modes. The City also has two planned projects to enhance the bikeways on SE Water Avenue and SE Salmon Street adjacent to the proposed venue. These planned projects include a two-way cycle track on the west side of SE Water Avenue (i.e., along the frontage of the proposed

venue) from SE Stark Street to SE Clay Street, and neighborhood greenway improvements along SE Salmon Street from the Eastbank Esplanade to SE 7th Avenue.

- **Section 33.815.215.A (3) (b) – Measures proportional to the impacts of the proposed use are proposed to mitigate on- and off-site transportation impacts. Measures may include transportation improvements to on-site circulation, public street dedication and improvement, private street improvements, intersection improvements, signal or other traffic management improvements, additional transportation and parking demand management actions, street crossing improvements, improvements to the local pedestrian and bicycle networks, and transit improvements.**

Transportation improvements needed to support the proposed venue by 2025 are summarized in Table 21. The Transportation Impact Study found no off-site transportation impacts that result from the proposed venue. On-site transportation impacts resulting from new site generated trips will be mitigated with improved street frontages to feature wider sidewalks, to include 12-foot sidewalk corridors on SE Main Street and SE Salmon Street, consistent with their local street designations in a Pedestrian District and a 15-foot sidewalk corridor along SE Water Avenue, consistent with its Major City Walkway and Neighborhood Main Street designations.

A transportation and parking demand management plan was also prepared for the proposed venue to reduce the impact of events on the transportation system and provide employees and attendees with information and incentives to use transportation methods other than single occupancy vehicles. The plan provides strategies to increase the transit, walking, and biking travel options, along with traffic management techniques to ensure that people who travel via motor vehicle effectively navigate to their parking, drop-off, or pick-up location with fewer delays than what would occur under an unmanaged setting.

Several projects were also identified in previous studies or plans surrounding the proposed venue. Since the need for these improvements are driven by regional traffic issues and are not directly caused by growth associated with the proposed venue, they are shown in Table 21 as not being triggered by project trips.

- **Section 33.815.215.A (3) (c) – Transportation improvements adjacent to the development and in the vicinity needed to support the development are available or will be made available when the development is complete or, if the development is phased, will be available as each phase of the development is completed.**

Transportation improvements that are needed to support the proposed venue by 2025 are summarized in Table 21 and included within the transportation and parking demand management plan for the proposed venue. These improvements will be made when the development is completed in 2025.

Several projects were also identified in previous studies or plans surrounding the proposed venue. Since the need for these improvements are driven by regional traffic issues and are not directly caused by growth associated with the proposed venue, they are shown in Table 21 as not being triggered by project trips and will be completed later by the City as funding becomes available.

APPENDIX

CONTENTS

SECTION 1: TRANSPORTATION AND PARKING DEMAND MANAGEMENT PLAN

TECHNICAL MEMORANDUM

DATE: March 8, 2024

TO: Matthew Machado and Michael Pina | PBOT

FROM: Kevin Chewuk and Brianna Velasquez | DKS Associates

SUBJECT: Portland Central Eastside Venue
Transportation and Parking Demand Management Plan 22048-000

A transportation and parking demand management (TDM) plan was prepared for the proposed Central Eastside Venue consistent with requirements in Portland City Code 17.107. The purpose of the plan is to reduce the impact of events on the transportation system and provide employees and attendees with information and incentives to use transportation methods other than single occupancy vehicles. The plan provides strategies to increase the transit, walking, and biking travel options, along with traffic and ride hailing management techniques to ensure that people who travel via motor vehicle effectively navigate to their parking, drop-off, or pick-up location with fewer delays than what would occur under an unmanaged setting.

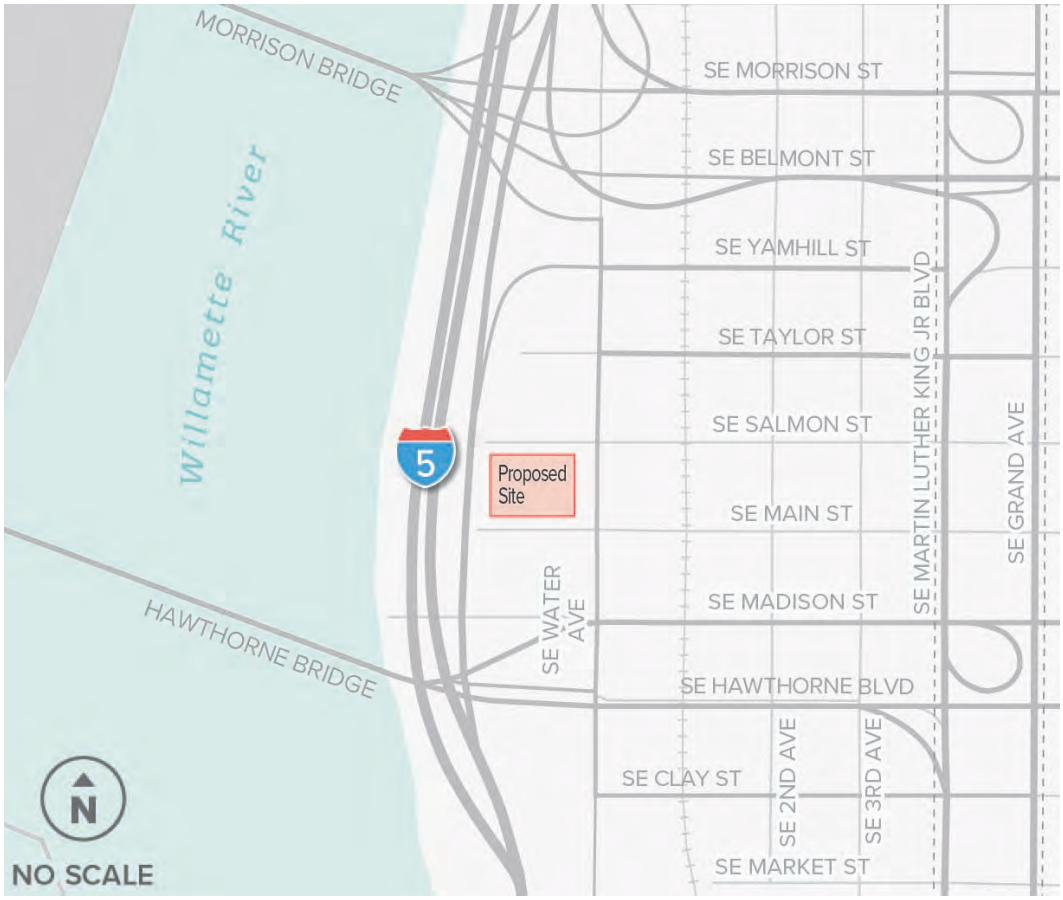
The TDM plan is a “living” document, that lays out a monitoring and data collection process that will provide information on how effective the strategies are in achieving mode split performance targets that are identified in this plan. Adjustments to the plan may be needed as travel behaviors, transportation facilities and technologies evolve to ensure this TDM plan continues to show progess towards meeting the idenified performance targets.

PROJECT DESCRIPTION

PROJECT LOCATION

The proposed venue, shown in Figure 1, is located in the Central Eastside industrial area of inner southeast Portland along SE Water Avenue and is generally bounded by SE Salmon Street to the north, SE Main Street to the south, Interstate 5 (I-5) and the Willamette River to the west and the SE Water Avenue to the east.

FIGURE 1: PROPOSED VENUE LOCATION



SITE CONDITIONS AND LAND USES

The proposed site is currently vacant and is surrounded by surface parking lots and industrial buildings. Adjacent property owners are ODOT and Prosper Portland to the north, south and west, and a collection of light industrial users to the east. The area surrounding the proposed venue is zoned exclusively General Industrial 1 (IG1) and is located within the Central City Plan District.

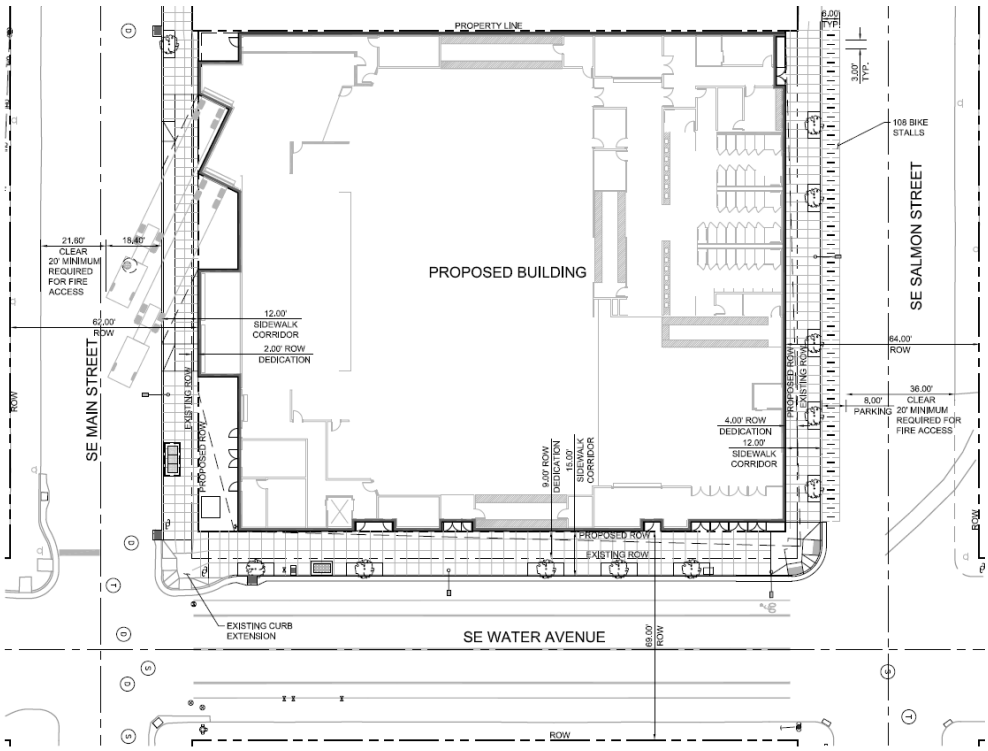
PROPOSED VENUE SITE PLAN

The proposed venue site plan, shown in Figure 1, will consist of a new event venue with a capacity of 3,500 spectators, hosting concerts and other special events. The proposed use is Major Event Entertainment, which is a conditional use in the IG1 zone. The proposed building area will be approximately 59,000 gross square feet distributed over three stories. No vehicle parking is currently planned on site.

The primary general admission entry point for the proposed venue will be located along the northeast corner of the building near the SE Water Avenue/SE Salmon Street intersection. Multiple general admission exit points will be located along the easterly face of the building to SE Water Avenue. A VIP entry and exit point will be located on the northwest corner of the building on SE Salmon Street.

The loading dock and staging area for the proposed venue will be located along the south building frontage of the proposed venue. The truck loading dock will have two off-street loading bays, although trucks that are docked at the loading bay will be partially encroaching into the roadway. Immediate access to the truck loading dock and staging area will be provided via SE Main Street, just west of the intersection with SE Water Avenue. One bus for an event may be staged along SE Main Street or staged on private property after drop-off, and to the extent that a given show has more than one bus, the additional buses will be staged elsewhere on private property after drop-off.

FIGURE 2: PROPOSED VENUE SITE PLAN



EVENT CHARACTERISTICS

The proposed venue will host approximately 110 concerts and 18 special events per year, for an estimated total of approximately 128 events annually (see Table 1). The proposed venue will have a maximum attendance capacity of approximately 3,500 people. Of the 110 concerts at the venue, an estimated 45 may sell up to the maximum capacity. The typical (i.e., average) attendance for concerts and special events will be 2,100 (i.e., assumed to be 60 percent of the maximum capacity) and 500 people, respectively.

Sold-out concerts require up to 350 employees, which includes 150 venue staff (i.e., 140 staff directly involved in the venue operation and 10 management staff), and up to 200 non-venue employees (e.g., staff of the artist's touring group, food and beverage staff, etc.). The average concert requires up to 250 employees, including 130 venue employees, and as many as 120 non-venue employees.

Events are primarily anticipated to occur during the weekday and weekend evening hours. Typically, the doors for concerts will open at 7:00 p.m. and the show will start at approximately 8:00 p.m. and conclude at approximately 11:00 p.m..

TABLE 1: EVENT CHARACTERISTICS OF PROPOSED VENUE

EVENT TYPE	TOTAL EVENTS	ATTENDANCE	WEEKDAY DAYTIME	WEEKDAY EVENING	WEEKEND EVENING
CONCERTS	**110**	2,100 (average) 3,500 (maximum)		X	X
SPECIAL EVENT	**18**	500	X	X	X
TYPICAL CONCERT SCHEDULE					
7:00 P.M.	Doors open to the venue				
8:00 P.M.	Concert begins (opening act)				
11:00 P.M.	Concert ends				

Source: Venue Operator, 2023

PROJECT TRAVEL CHARACTERISTICS

This section summarizes the anticipated travel characteristics of event attendees and employees.

MODE CHOICE OF TRIPS

Due to the proposed venue's location in the Central City, and proximity to multiple transit lines and high-quality pedestrian and bicycle facilities, 20 percent of the trips generated by the proposed venue were assumed to occur via transit (13 percent), walking (2 percent) or biking or e-scooter (5 percent), with the remaining 80 percent using private vehicles (50 percent) or ride hailing vehicles (30 percent). These mode choice estimates were based on data from similar event venues and modeling data provided by PBOT[1]. Given the typical event will occur in the evening and conclude at approximately 11:00 p.m., the mode choice estimates were weighted more towards data from similar venues, with more of the trips assumed to occur via private and ride hailing vehicles compared to the modeling data provided by PBOT (i.e., 80 percent compared to 63 percent of the total trips), while fewer trips were assumed to occur via walking or biking (7 percent compared to 24 percent of the total trips). No adjustments were made to the assumed transit usage (i.e., 13 percent of the total trips).

TRIPS GENERATED BY SOLD-OUT EVENTS

The total estimated one-way trips generated by the proposed venue during sold-out events (i.e., 3,500 attendees and 350 employees) are shown in Table 2. As shown, the proposed venue is estimated to generate 2,242 one-way trips, including 1,917 one-way attendee trips and 325 one-way employee trips. This includes 501 one-way transit trips, 77 one-way walking trips, 135 one-way biking trips, 58 one-way e-scooter trips, 920 one-way private vehicle trips and 552 one-way ride hail trips.

[1] Based on mode splits provided by the venue operator from similar event venues in Sacramento, California and Philadelphia, Pennsylvania, and modeling data provided by PBOT and resulting mode splits utilized for the OMSI Central City Master Plan. The OMSI Central City Master Plan assumed 63 percent of the total trips occur via private and ride hailing vehicles, while the estimates at similar event venues assume between 85 and 91 percent of the total trips occur via these modes. Transit ridership is assumed as 13 percent of the OMSI trips and up to 12 percent of the similar venue trips, while walking and biking were assumed as 24 percent of the OMSI trips and up to 3 percent of the similar venue trips.

TABLE 2: ONE-WAY TRIPS FOR SOLD-OUT EVENTS

TRAVELER TYPE	MODE SPLIT	ATTENDEE TRIPS (ONE-WAY)		EMPLOYEE TRIPS (ONE-WAY)		ATTENDEE AND EMPLOYEE TRIPS (ONE-WAY)	
		PEOPLE TRIPS	TOTAL TRIPS	PEOPLE TRIPS	TOTAL TRIPS	PEOPLE TRIPS	TOTAL TRIPS
TRANSIT TRIPS	13%	455	455	46	46	**501**	**501**
WALKING TRIPS	2%	70	70	7	7	**77**	**77**
BIKING TRIPS	3.5%	123	123	12	12	**135**	**135**
E-SCOOTER TRIPS	1.5%	53	53	5	5	**58**	**58**
PRIVATE VEHICLE TRIPS	50%	1,750	761 *	175	159 *	**1,925**	**920** *
RIDE HAILING VEHICLE TRIPS **	30%	1,050	457 *	105	95 *	**1,155**	**552** *
TOTAL	**100%**	**3,500**	**1,917**	**350**	**325**	**3,850**	**2,242**

Notes: * Average vehicle occupancy was estimated at 2.3 persons per vehicle for attendees and 1.1 persons per vehicle for employees.

** The one-way ride hail trips represent an inbound or outbound trip with attendees or employees. Each one-way ride hail trip will also include an inbound or outbound trip with just the driver (i.e., 552 trips).

Pre-event attendee arrivals for a sold-out event are estimated at 35 percent between 6-7 p.m. (i.e., 1,225 people), 55 percent between 7-8 p.m. (i.e., 1,925 people) and 10 percent between 8-9 p.m. (i.e., 350 people), while post-event attendee departures for a sold-out event are estimated at 12 percent between 10-11 p.m. (i.e., 420 people), 83 percent between 11 p.m.-12 a.m. (i.e., 2,905 people) and 5 percent between 12-1 a.m. (i.e., 175 people)[2].

Employee arrival and departure estimates are based on typical schedules provided by the venue operator. Venue operation staff (i.e., 340 employees for a sold-out event) typically arrive between 6-7 p.m. for evening events, with 70 employees departing between 11 p.m.-12 a.m., and 270 employees departing between 12-1 a.m. All 10 venue management staff work daily from 10:00 a.m. to 7:00 p.m.

Based on programming information provided by the venue operator, a system peak hour was established for the pre-event period from 7:00 – 8:00 p.m. and post-event period from 11:00 p.m. – 12:00 a.m. As shown in Table 3, the proposed venue is estimated to generate 1,318 pre-event peak and 2,054 post-event peak trips, including 387 pre-event peak and 595 post-event peak transit, walking, biking, or e-scooter trips, and 931 pre-event peak and 1,459 post-event peak motor vehicle trips.

[2] Based on information provided by the venue operator from similar venues.

TABLE 3: PEAK HOUR TRIPS FOR SOLD-OUT EVENTS

TRAVELER TYPE	PRE-EVENT PEAK HOUR (7-8 P.M.)			POST-EVENT PEAK HOUR (11 P.M. -12 A.M.)		
	IN	OUT	TOTAL	IN	OUT	TOTAL
ATTENDEES ARRIVING/DEPARTING **	1,925	0	1,925	0	2,905	2,905
EMPLOYEES ARRIVING/DEPARTING **	0	10	10	0	70	70
TOTAL ARRIVING/DEPARTING	**1,925**	**10**	**1,935**	**0**	**2,975**	**2,975**
TOTAL ATTENDEE TRIPS	1,055	251	1,306	379	1,591	1,970
TOTAL EMPLOYEE TRIPS	3	9	12	19	65	84
TOTAL TRIPS (ATTENDEE AND EMPLOYEE)	**1,057**	**260**	**1,318**	**398**	**1,656**	**2,054**
TRANSIT TRIPS (13 PERCENT)	*250*	*1*	*252*	*0*	*387*	*387*
WALKING TRIPS (2 PERCENT)	*39*	*0*	*39*	*0*	*60*	*60*
BIKING/E-SCOOTER TRIPS (5 PERCENT)	*96*	*1*	*97*	*0*	*149*	*149*
*PRIVATE VEHICLE TRIPS (50 PERCENT) **	*418*	*5*	*423*	*0*	*663*	*663*
*RIDE HAILING VEHICLE TRIPS (30 PERCENT) **	*254*	*254*	*508*	*398*	*398*	*796*

Notes: * Average vehicle occupancy was estimated at 2.3 persons per vehicle for attendees and 1.1 persons per vehicle for employees.

** Estimates derived from information provided by the venue operator.

MODE SPLIT PERFORMANCE TARGETS

Long term modal split targets have been established by the City of Portland for new development to work towards achieving. The City of Portland mode share targets for the Central City suggest that 85 percent of the daily trips by 2035 should be via walking, biking, transit or carpool[3], and 15 percent via single-occupant vehicles.

The mode share targets also suggest that 70 percent of commuter trips by 2035 should be via walking (7.5 percent), biking (25 percent), transit (25 percent), and carpool (12.5 percent), with the remaining 30 percent of commuter trips suggested to occur via single-occupant vehicles[4].

Given the typical event will occur in the evening and conclude at approximately 11:00 p.m. or later, the baseline mode share estimates for the proposed venue assume 20 percent of the trips by 2025 will occur via transit (13 percent), walking (2 percent) or biking or e-scooter (5 percent), and another 30 percent via ride hailing vehicles. While the remaining 50 percent of the proposed venue trips were estimated to occur via private vehicles, many will occur in vehicles with multiple occupants, particularly attendee trips (i.e., average vehicle occupancy was estimated at 2.3 persons per vehicle for attendees and 1.1 persons per vehicle for employees).

[3] Portland Transportation System Plan, Policy 9.49.e.

[4] Portland Transportation System Plan, Policy 9.49.f.

TRANSPORTATION AND PARKING DEMAND MANAGEMENT STRATEGIES

This section includes a set of transportation and parking demand management strategies designed to help the proposed venue achieve the identified mode split performance targets.

TRANSIT

EXISTING TRANSIT FACILITIES

All streets near the proposed venue are designated as Local Service Transit Streets. The closest designated Major Transit Priority streets to the proposed venue include the SE Morrison Street and SE Belmont Street viaducts to the north, SE Madison Street and SE Hawthorne Boulevard viaducts to the south, and SE Grand Avenue and SE Martin Luther King Jr Boulevard to the east.

Transit service is provided near the proposed venue by the Portland Streetcar- A and B Loop and TriMet Route 6 – Martin Luther King Jr Blvd, Route 10 – Harold St, Route 14 – Hawthorne, and Route 15 – Belmont/NW 23rd. All of these transit options are within a 10-minute walk from the proposed venue.

The Portland Streetcar- A and B Loop, connects riders to the Pearl District, Lloyd District and Portland State University, with stops near the proposed venue on SE Grand Avenue and SE Martin Luther King Jr Boulevard between SE Salmon Street and SE Taylor Street. The A Loop runs clockwise while the B Loop runs counterclockwise, with service every 20 minutes, most of the day, every day. Existing streetcar service near the proposed venue begins around 7:30 a.m. on weekdays and weekends and ends around 10:30 p.m. on weekdays and 10:00 p.m. on weekends.

Stops for TriMet Routes 6, 10 and 14 are located on the SE Madison Street and SE Hawthorne Boulevard viaducts (accessed via stairs from SE Water Avenue). TriMet Route 6 provides bus service every 15 minutes for most of the day, every day between downtown Portland and Jantzen Beach. TriMet Routes 10 and 14 provides bus service between downtown Portland and the Lents neighborhood. Route 14 provides bus service every 15 minutes for most of the day, every day while Route 10 provides bus service about every 45 minutes between 6:00 a.m. and 8:00 p.m. on weekdays, between 10:00 a.m. and 6:00 p.m. on weekends.

Stops for TriMet Route 15 are located on the SE Morrison Street and SE Belmont Street viaducts (accessed via stairs from SE Water Avenue), with service between NW 23rd Avenue, downtown Portland, and the Gateway Transit Center. Service is offered every 15 minutes for most of the day, every day.

The MAX Blue and Red Lines also have stops along SW 1st Avenue in downtown Portland across the Morrison Bridge, and the MAX Orange Line has a stop near SE Tilikum Way. These stops are within a 15 to 20-minute walk from the proposed venue. The MAX provides service every 15 minutes for most of the day, every day. All of these routes provide transfer opportunities to other MAX light-rail and TriMet bus routes in downtown Portland along the 5th and 6th Avenue transit mall.

TRANSIT TRAVEL DEMAND AND ACCESS

Based on the project travel characteristics, it is anticipated that a sold-out maximum capacity event at the venue would generate approximately 501 one-way transit passenger trips during both the pre-event and post-event time periods. This would entail 501 passenger alightings during the pre-event period and 501 passenger boardings during the post-event period.

Current transit service near the proposed venue is primarily accessed via stops located on SE Grand Avenue and SE Martin Luther King Jr Boulevard between SE Salmon Street and SE Taylor Street, on the SE Madison Street and SE Hawthorne Boulevard viaducts (accessed via stairs from SE Water Avenue), on the SE Morrison Street and SE Belmont Street viaducts (accessed via stairs from SE Water Avenue), along SW 1st Avenue in downtown Portland across the Morrison Bridge, and near SE Tilikum Way. Event attendees and employees who utilize transit for travel to and from the venue would primarily utilize SE Water Avenue, SE Salmon Street and the Eastbank Esplanade to access transit services before and after events.

Current schedules indicate that the TriMet Routes 6, 14 and 15 and MAX light-rail service near the proposed venue extends beyond the conclusion of a typical event (i.e., expected to be 11:00 p.m. or later for most events). However, current schedules for the Portland Streetcar- A and B Loop and TriMet Route 10 service near the proposed venue end prior to the conclusion of a typical event (i.e., expected to be 11:00 p.m. or later for most events). Therefore, event attendees who desire to utilize these routes for their return trip home would need to leave the event early in order to catch the last trip of the evening.

TRANSIT TDM STRATEGIES

The strategies summarized below are recommended to promote transit usage for events.

A.1: Promote use of park-and-ride facilities

Driving is currently estimated to be the preferred means of travel for attendees (i.e., mode shares of 50% for private vehicles and 30% for ride hailing). To increase the share of people taking transit, and reduce local parking impacts, the venue operator and TriMet should promote regional park-and-rides and educate attendees on the availability of parking at the locations that provide direct MAX or bus service to/from stops near the venue.

Key Actions

- Identify park-and-ride facilities that provide direct MAX or bus service and have available parking capacity for fans (Lead: TriMet).
- Promote and educate attendees about the use of key park-and-ride facilities (Lead: Venue operator).

A.2: Encourage transit ridership with marketing

It is recommended that TriMet and the venue operator provide marketing information about nearby MAX and bus services to increase ridership.

Key Actions

- Update website and communications to include more detailed information on transit services to the venue. (Lead: Venue operator).

PEDESTRIAN TRAVEL

The proposed venue is estimated to generate a significant amount of new walking trips. These trips are expected to occur both as primary trips between nearby origins and destinations (e.g., residences, hotels, restaurants/bars), and as secondary trips at the beginning or end of trips from nearby existing private vehicle parking or transit stops.

EXISTING PEDESTRIAN NETWORK

The proposed venue is very accessible to pedestrians and is well-served by a network of continuous sidewalks on the surrounding streets. SE Water Avenue provides sidewalks on both sides and is classified as a Major City Walkway. It connects pedestrians to the Major City Walkways along SE Salmon Street, SE Madison Street viaduct (accessed via stairs) and SE Hawthorne Boulevard viaduct (accessed via stairs) and City Walkways along SE Yamhill Street, SE Taylor Street and SE Clay Street.

The Eastbank Esplanade traverses through the proposed venue, extending for nearly two miles along the Willamette River, from the Steel Bridge to SE Caruthers Street. This route connects pedestrians to several crossing opportunities to the west side of the river, including the Tilikum Crossing, Hawthorne Bridge, Morrison Bridge, Burnside Bridge and Steel Bridge. Pedestrians can currently access the Eastbank Esplanade from SE Salmon Street and SE Main Street. There is also pedestrian access to the Eastbank Esplanade via ramps from the Morrison Bridge and Hawthorne Bridge.

PEDESTRIAN TRAVEL DEMAND AND ACCESS

An estimated 3,500 attendees and 350 employees will access the venue during a sold-out maximum capacity event and utilize the existing pedestrian facilities as they travel from nearby land uses, transit stops, or parking facilities. An estimated 2 percent of event attendees and employees are expected to walk to and from the venue from nearby land uses, or 77 trips during both the pre-event and post-event time periods.

Higher pedestrian volumes are also expected on pedestrian facilities between the venue and nearby existing private vehicle parking, ride hailing loading zones or transit stops. These include sidewalks on SE Water Avenue, SE Salmon Street, SE Main Street, and the Eastbank Esplanade, as well as crossings at the SE Water Avenue/SE Salmon Street and SE Water Avenue/SE Main Street intersections.

The primary general admission entry point for the proposed venue will be located along the northeast corner of the building near the SE Water Avenue/SE Salmon Street intersection. Multiple

general admission exit points will be located along the easterly face of the building to SE Water Avenue. A VIP entry and exit point will be located on the northwest corner of the building on SE Salmon Street. Prior to events, attendee queueing will be accommodated via the sidewalk along the SE Salmon Street and SE Water Avenue frontage of the venue.

The street frontages of the proposed venue will be improved to feature wider sidewalks, to include 12-foot sidewalk corridors on SE Main Street and SE Salmon Street, consistent with their local street designations in a Pedestrian District and a 15-foot sidewalk corridor along SE Water Avenue, consistent with its Major City Walkway and Neighborhood Main Street designations.

PEDESTRIAN TDM STRATEGIES

The strategies summarized below are recommended to promote pedestrian travel for events.

B.1: Future developments near the proposed venue should install additional pedestrian-scaled lighting to ensure nighttime visibility and safety.

Although not all attendees walk to events at the venue, all attendees walk or use personal mobility devices as they are entering or exiting the venue. Large volumes of pedestrians after events, mixed with private vehicles, ride-hailing activity, and bikes/e-scooters, presents significant traffic and safety challenges. Although street lighting is present, an opportunity exists to further improve safety for attendees along nearby roadways.

Key Actions

- Install pedestrian-scaled lighting with new developments to ensure nighttime visibility and safety (Lead: Private development; Support: PBOT).

B.2: Support and implement planned improvements near the venue.

Several key projects are currently in the planning and design process. For a detailed list, see the Transportation Impact Study for the Portland Central Eastside Venue.

Key Actions

- Implement planned improvements near the venue (Lead: PBOT, ODOT; Support: Venue operator).

BICYCLE TRAVEL

The proposed venue is estimated to generate a significant number of new bicycling trips between locations throughout Portland.

EXISTING BICYCLE NETWORK

SE Water Avenue provides bike lanes and is classified as a Major City Bikeway. It connects bicyclists to the Major City Bikeways along SE Salmon Street, SE Morrison Street and SE Belmont Street (under the Morrison Bridge viaduct), and SE Madison Street viaduct and SE Hawthorne

Boulevard viaduct (accessed via the Eastbank Esplanade ramps) and City Bikeway along SE Main Street (west of SE Water Avenue), SE Madison Street (under the SE Madison Street viaduct), and SE Clay Street. SE Water Avenue, which turns into SE 4th Avenue south of SE Caruthers Street, provides bicyclists with a connection to the Springwater Corridor trail.

Buffered bicycle lanes are provided on the SE Madison Street viaduct and SE Hawthorne Boulevard viaduct, connecting the Eastbank Esplanade and Hawthorne Bridge to SE Grand Avenue and neighborhoods further to the east. SE Salmon Street also provides a Major City bike route between the Eastbank Esplanade and southeast Portland, although it does not currently have any bike facilities or markings along the segment adjacent to the proposed venue. The Eastbank Esplanade also provides bicyclists an off-street connection between the Steel Bridge and SE Caruthers Street (just south of the Tilikum Crossing), and to the multi-use path crossings to the west side of the Willamette River on the Tilikum Crossing, Hawthorne Bridge, Morrison Bridge and Steel Bridge. These are all regional commuting and recreational routes for bicyclists and there are high bicycle volumes observed on each.

BICYCLE TRAVEL DEMAND AND ACCESS

An estimated 3.5 percent of event attendees and employees are expected to bike to and from the venue, or 135 trips during both the pre-event and post-event time periods for a sold-out maximum capacity event. Most cyclists are expected to utilize the Eastbank Esplanade, with 88 cyclists traveling along it during both the pre-event and post-event time periods. Cyclists are also expected to utilize the bike routes along SE Water Avenue (i.e., 27 during both the pre-event and post-event time periods) and SE Salmon Street (i.e., 20 during both the pre-event and post-event time periods) to travel to/from areas to the north and east of the proposed venue.

It is expected that cyclists will primarily access bike parking along SE Salmon Street given its designation as a Major City Bikeway or SE Main Street given its designation as a City Bikeway and their connections to the Eastbank Esplanade. Bike trips are estimated to account for 3.5 percent of the total trips for the proposed venue, meaning for a sold-out concert up to 135 bike parking spaces would be needed. Current bicycle parking standards require the proposed venue to provide 6 long-term and 32 short-term bicycle parking spaces (based on 1,280 seats)[5], or 97 fewer spaces than the estimated demand.

The City has two planned projects to enhance the bikeways on SE Water Avenue and SE Salmon Street adjacent to the proposed venue. These planned projects include a two-way cycle track on the west side of SE Water Avenue (i.e., along the frontage of the proposed venue) from SE Stark Street to SE Clay Street, and neighborhood greenway improvements along SE Salmon Street from the Eastbank Esplanade to SE 7th Avenue.

[5] Title 33 (33.266.200), based on the Major Event Entertainment use.

BICYCLE TDM STRATEGIES

The strategies summarized below are recommended to promote bicycle and e-scooter travel for events.

C.1: Provide bike parking within the on-street parking lane of the SE Salmon Street frontage of the venue

Provide bike parking for attendees within the on-street parking lane along the SE Salmon Street frontage of the proposed venue west of SE Water Avenue during events. The parking should be located near the venue entrances. Current estimates suggest up to 108 bike parking spaces could be provided for attendees.

Key Actions

- Provide bike parking within the on-street parking lane on SE Salmon Street west of SE Water Avenue (Lead: Venue operator).

C.2: Provide permanent bike parking near the venue.

Further evaluate, identify, and install permanent bike racks and/or on-street bike corrals near the venue. The closest BIKETOWN hubs at SE Taylor Street and SE Clay Street have space for a total of 26 bikes. Permanent and secured bike parking is also recommended for employees, with the proposed venue providing up to 11 bike parking spaces for employees.

Key Actions

- Further evaluate, identify, and install permanent bike racks and/or on-street bike corrals near the venue (Lead: Venue operator; Support: PBOT).
- Evaluate provision of additional BIKETOWN parking (Lead: Venue operator, BIKETOWN).
- Provide permanent and secure bike parking for employees (Lead: Venue operator).

C.3: Designate e-scooter parking areas.

E-scooters offer another non-driving option for attendees and can provide a crucial first and last-mile connection to off-street parking, transit, and nearby destinations. By creating a designated space for people to park e-scooters and prohibiting sidewalk parking, the venue can encourage e-scooter use, while mitigating sidewalk congestion and safety concerns. If managed correctly, e-scooter parking can be accommodated in a relatively small area and can also be flexibly deployed based on anticipated need and integrated with temporary bike parking operations, allowing for efficient management and storage of e-scooters.

Key Actions

- Identify and designate e-scooter parking areas (Lead: PBOT, E-scooter companies; Support: Venue operator).

- Utilize smartphone apps and geo-fencing function to direct users to dedicated e-scooter parking locations and prohibit parking along sidewalks near the venue (Lead: E-scooter companies).

C.4: Support and implement planned improvements near the venue.

Several key projects are currently in the planning and design process. For a detailed list, see the Transportation Impact Study for the Portland Central Eastside Venue.

Key Actions

- Implement planned improvements near the venue (Lead: PBOT; Support: Venue operator).

PARKING

Driving to events and parking is currently estimated to be the preferred means of travel for attendees (i.e., mode shares of 50% for private vehicles). No off-street parking is proposed or required for the proposed venue, although a parking study was completed to better understand the availability and occupancy of the existing nearby on-street and off-street public parking. Parking surveys were conducted between 6:00 p.m. and 11:00 p.m. on a weekday (Thursday, July 27, 2023) and a weekend (Saturday, August 5, 2023) within a 0.25 mile or about a 10-minute walk of the proposed venue, which is generally considered a comfortable walking distance. This roughly includes the blocks bounded by the Willamette River to the west, SE Morrison Street to the north, SE Grand Avenue to the east and SE Clay Street to the south. On-street parking in the surveyed area is either permit parking (i.e., Zone G or Zone N permit) or available via a 2-hour time limit for non-permit holders and enforced from 8 a.m. to 6 p.m. on weekdays only. About 1,318 parking spots were identified within the surveyed area, including 1,084 on-street parking stalls and 234 parking spots in public off-street lots. A maximum estimated parking occupancy for the entire surveyed area of 32 percent was observed during the weekday and 17 percent was observed during the weekend, both occurring in the 5:00 p.m. and 7:00 p.m. survey period. More details on the parking survey can be found in the Transportation Impact Study for the Portland Central Eastside Venue.

In addition to the survey parking spots summarized above, approximately 5,000 additional on-street stalls within the Central Eastside Industrial District[6] and more than 1,500 additional spots in parking garages across the Hawthorne Bridge in Downtown Portland are within about a 0.50 mile walk from the proposed venue.

The parking occupancy was evaluated with the proposed venue in place during both a sold-out evening concert (i.e., 45 events per year with 3,500 attendees and 350 employees) and a weekday special event (i.e., 18 events per year with 500 attendees and 50 employees). The results are

[6] 2019 Central Eastside Industrial District Parking Assessment and Permit Analysis Summary, Rick Williams Consulting, June 5, 2019.

based on the parking surveys which identified parking availability of 1,318 total spaces and estimated parking occupancy rates within 0.25 miles of the proposed venue.

A sold-out concert is estimated to generate demand for 915 parking spaces during both a weekday and weekend event, with attendee and employee arrivals occurring between 6:00 p.m. and 9:00 p.m.[7] and most assumed to use parking locations within 0.25 miles of the proposed venue (i.e., 763 of the 915 parking spaces)[8]. The total occupied parking spaces with the proposed venue is estimated to be highest between 8:00 p.m. and 9:00 p.m. during both a weekday and weekend event when the attendee and employee parking demand is at its highest (i.e., demand for 763 spaces within 0.25 miles of the proposed venue). The parking occupancy rate during this period is estimated to reach 82 percent during a weekday event (i.e., 1,074 parking spaces) and 71 percent during a weekend event (i.e., 930 parking spaces) for the 1,318 parking spaces within 0.25 miles of the proposed venue. The estimated parking occupancy rates between 6:00 and 8:00 p.m. are under 80 percent for a weekday event and under 70 percent for a weekend event. More details on the parking demand and occupancy for a sold-out evening concert can be found in the Transportation Impact Study for the Portland Central Eastside Venue.

A weekday special event is estimated to generate demand for 131 parking spaces, with attendee and employee arrivals occurring between 12:00 p.m. and 3:00 p.m.[9] and all are assumed to use parking locations within 0.25 miles of the proposed venue. The total occupied parking spaces with the proposed venue is estimated to be highest between 1:00 p.m. and 2:00 p.m., when 1,135 parking spaces are utilized. This represents an 86 percent occupancy rate for the 1,318 parking spaces within 0.25 miles of the proposed venue. The estimated parking occupancy rates between 12:00 and 1:00 p.m. and are 2:00 and 3:00 p.m. are at or below 84 percent. More details on the parking demand and occupancy for a weekday special event can be found in the Transportation Impact Study for the Portland Central Eastside Venue.

PARKING TDM STRATEGIES

The strategies summarized below are recommended to manage driving and parking as the means of travel for events.

D.1: Promote the use of underutilized parking facilities to incentivize off-street parking.

[7] Attendee arrivals are estimated at 35 percent between 6-7 p.m., 55 percent between 7-8 p.m. and 10 percent between 8-9 p.m., while 340 staff arrive by 6 p.m. and 10 staff arrive at 10 a.m.

[8] All employees and 80 percent of attendees are assumed to park within 0.25 miles of the proposed venue, with the remaining 20 percent of attendees parking more than 0.25 miles from the proposed venue elsewhere in the Central Eastside (10 percent) or on the west side of the Willamette River in Downtown Portland (10 percent).

[9] Attendee arrivals are estimated at 35 percent between 12-1 p.m., 55 percent between 1-2 p.m. and 10 percent between 2-3 p.m.; all 50 staff are assumed to arrive by 12 p.m.

Driving to events and parking is currently estimated to be the preferred means of travel for attendees (i.e., mode shares of 50% for private vehicles). Promoting use of nearby underutilized off-street parking will help reduce local congestion and on-street parking impacts.

Key Actions

- Promote use of SmartPark and other garages in Downtown Portland (Lead: Venue operator; Support: PBOT).
- Further evaluate a partnership with OMSI or PCC to utilize their existing off-street parking facilities during evening events when those facilities are not being utilized. (Lead: Venue operator).

D.2: Provide enhanced parking information.

Attendees unaware of nearby parking options may randomly search for on and/or off-street parking, causing more local delay and congestion. Providing enhanced information about nearby parking to attendees, including parking availability, will help reduce this.

Key Actions

- Update website and communications to include more detailed information on parking options near the venue. (Lead: Venue operator).

RIDE HAILING

The use of ride hailing services (e.g., Uber and Lyft) to and from events is currently estimated to be the preferred means of travel for 30% of attendees. This translates to an estimated 552 ride-hailing vehicles dropping off passengers at the venue during the pre-event period and picking them up during the post-event period, or 254 during the pre-event peak hour and 398 during the post-event peak hour. These trips would each be inbound and outbound, which would include vehicles pulling to and from the curb.

However, given that attendees may occasionally stop for a meal or drink before or after an event, it is likely that some ride hail loading is happening in Downtown Portland and at businesses in the Central Eastside, and not solely right by the venue. Assuming 80% of these ride hailing trips occur near the venue during the post-event peak hour (which represents the busier of the two event peak hours with respect to ride hailing activity), this equates to about 5.3 pick-ups per minute during the one-hour period. Assuming an average curb dwell and loading time of 81 seconds for passenger pick-ups, an estimated 7 spaces or about 175 feet of total curb space would be needed to accommodate this unregulated peak pick-up activity for a sold-out event.

RIDE HAILING TDM STRATEGIES

The strategies summarized below are recommended to manage ride hailing for events.

E.1: Study the feasibility of designating ride-hailing zones and driver staging areas.

The use of ride hailing services (e.g., Uber and Lyft) to and from events is currently estimated to be the preferred means of travel for 30% of attendees. This translates to an estimated 552 ride-hailing vehicles. Given that attendees may occasionally stop for a meal or drink before or after an event, it is likely that ride hail loading is happening in Downtown Portland and at businesses in the Central Eastside, and not solely right by the venue.

While ride-hailing lowers the demand for parking near the venue, it can exacerbate traffic congestion, pedestrian safety issues, and local impacts as drivers and passengers seek locations to load. Designated locations for pick-ups and drop-offs that are clearly advertised, combined with driver staging areas, can help mitigate impacts, improve safety, and enhance the ride hailing experience for drivers and passengers.

It is recommended that special event loading zones be considered to allow for pre-event drop-off and post-event pick-up activity at a variety of locations within 0.25 miles of the venue, although the final locations are to be determined through future coordination with the venue operator, ride hailing companies and PBOT. Event loading zones should not be located along high traffic roadways or those with Major City Bikeway designations (i.e., SE Water Avenue, SE Salmon Street, SE Grand Avenue and SE Martin Luther King Jr Boulevard). These street segments can serve as “flex zones” that can also be used for on-street parking at times when large events at the proposed venue are not occurring.

Key Actions

- Study the feasibility of designating at least one ride hailing zone within 0.25 mile of the venue (Lead: Venue operator; Support: Ride hailing companies; PBOT).
- Study the feasibility of designating at least one driver staging areas within a reasonable distance of the venue on days when large events are occurring (Lead: Venue operator; Support: Ride hailing companies; PBOT).

E.2: Provide information on ride-hailing zones.

The pick-up and drop-off locations are only viable if drivers and passengers know about them and are encouraged to use them. Clear guidelines for ride-hailing operators and users and use of ride-hail technology can promote more efficient operations and reduce neighborhood impacts.

Key Actions

- Use geo-fencing technology to direct drivers and passengers to designated ride-hail zones (Lead: Ride-hailing companies; Support: PBOT).
- Update website and communications to direct attendees to pick-up/drop-off zones (Lead: Venue operator).

TDM PLAN MONITORING AND REPORTING

The TDM plan is a "living" document, with the following section providing a summary of how each of the measures in Table 4 will be monitored and evaluated consistent with the requirements of Portland City Code 17.107.020 (G). These measures will need to be evaluated and the results reported to the Portland Bureau of Transportation a minimum of every 2 years after initial approval of the TDM Plan per Portland City Code 17.107.045.

TABLE 4: MONITORING POTENTIAL TDM STRATEGIES

#	STRATEGY	RESPONSIBLE PARTY		MONITORING	DATA SOURCE
		LEAD	SUPPORT		
TRANSIT					
A.1	Promote use of park-and-ride facilities	Venue operator	TriMet	• Percent of attendees who take transit. • Ons/offs at key stops on event days. • Occupancy of park-and-ride facilities on event days within a 30-minute one seat ride from the venue.	• Venue operator Travel surveys • TriMet Travel Data
A.2	Encourage transit ridership with marketing	Venue operator			
PEDESTRIAN					
B.1	Install additional pedestrian-scaled lighting with new developments to ensure nighttime visibility and safety.	Private development	PBOT	• Percent of attendees who walk	• Venue operator Travel surveys
B.2	Support and implement planned improvements near the venue.	PBOT; ODOT	Venue operator		
BICYCLE					
C.1	Provide bike parking within the on-street parking lane of the SE Salmon Street frontage of the venue.	Venue operator		• Percent of attendees who bike or use scooters. • Number of parked bicycles and e-scooters. • Number of permanent bike racks installed.	• Venue operator Travel surveys • BIKETOWN usage data • E-scooter companies usage data
C.2	Provide permanent bike parking near the venue.	Venue operator; BIKETOWN	PBOT		
C.3	Designate e-scooter parking areas.	PBOT; E-scooter companies	Venue operator		

#	STRATEGY	RESPONSIBLE PARTY		MONITORING	DATA SOURCE
		LEAD	SUPPORT		
C.4	Support and implement planned improvements near the venue.	PBOT	Venue operator		
PARKING					
D.1	Promote the use of underutilized parking facilities to incentivize off-street parking.	Venue operator	PBOT	• Percent of attendees who drive and park. • Parking occupancy on events days.	• Venue operator Travel surveys • Parking occupancy data
D.2	Provide enhanced parking information.	Venue operator			
RIDE HAILING					
E.1	Study the feasibility of designating ride-hailing zones and driver staging areas.	Venue operator	Ride hailing companies; PBOT	• Percent of attendees who use ride hailing. • Pick-ups and drop-offs in ride hailing zones.	• Venue operator Travel surveys • Ride hailing companies
E.2	Provide information on ride-hailing zones.	Venue operator	Ride hailing companies; PBOT		

SECTION 2: COLLISION DATA AND ANALYSIS

000 Crash Id	015 Street Name	016 Intersecting Street Name	028 Crash Type	029 Collision Type	031 Weather Conditions	032 Road Surface Conditions	033 Lighting Conditions	034 Traffic Control	036 Crash Cause 1	114 Road Departure Flag	117 Severity	118 Intersection Flag	126 Bike / Ped Related	Week of 001 CRASH Date	002 Year	008 Jurisdiction	119 State Highway Flag	013 Lat	014 Long	024 Isect Rel Flg	025 Drvwy Rel Flg	039 Alcohol Involved Flag	040 Drug Involved Flag
1756325	SE MAIN ST	SE WATER AVE	S-1STOP	REAR	CLR	DRY	DAY	STOP SIGN	INATTENT	No	PDO	Yes	Neither	19-Mar-17	2017	Portland SE	No	45.51368	-122.666	FALSE	FALSE	FALSE	FALSE
1802333	SE MAIN ST	SE WATER AVE	ANGL-OTH	ANGL	CLR	DRY	DAY	STOP SIGN	NO-YIELD	No	Possible Injury (C)	Yes	Neither	28-Oct-18	2018	Portland SE	No	45.51368	-122.666	FALSE	FALSE	FALSE	FALSE
1734419	SE SALMON ST	SE WATER AVE	ANGL-OTH	TURN	CLR	DRY	DAY	STOP SIGN	NO-YIELD	No	Possible Injury (C)	Yes	Neither	30-Apr-17	2017	Portland SE	No	45.51439	-122.666	FALSE	FALSE	FALSE	FALSE
1701168	SE SALMON ST	SE WATER AVE	S-1STOP	REAR	CLR	DRY	DAY	STOP SIGN	F AVOID	No	PDO	Yes	Neither	3-Apr-16	2016	Portland SE	No	45.51439	-122.666	FALSE	FALSE	FALSE	FALSE
1659567	SE SALMON ST	SE WATER AVE	ANGL-OTH	ANGL	CLR	DRY	DAY	STOP SIGN	NO-YIELD	No	Possible Injury (C)	Yes	Neither	14-Feb-16	2016	Portland SE	No	45.51439	-122.666	FALSE	FALSE	FALSE	FALSE
1727588	SE SALMON ST	SE WATER AVE	ANGL-OTH	ANGL	RAIN	WET	DAY	STOP SIGN	NO-YIELD	No	Possible Injury (C)	Yes	Neither	5-Feb-17	2017	Portland SE	No	45.51439	-122.666	FALSE	FALSE	FALSE	FALSE
1743486	SE SALMON ST	SE WATER AVE	BIKE	ANGL	CLR	DRY	DAY	STOP SIGN	PAS-STOP	No	Minor Injury (B)	Yes	Bicycle	6-Aug-17	2017	Portland SE	No	45.51439	-122.666	FALSE	FALSE	FALSE	FALSE
1902816	SE SALMON ST	SE WATER AVE	PRKD MV	BACK	CLR	DRY	DAY	UNKNOWN	OTHR-IMP	Yes	PDO	No	Neither	24-May-20	2020	Portland SE	No	45.5144	-122.666	FALSE	FALSE	FALSE	FALSE
1853325	SE HAW/BRG WATER RAMP	SE WATER AVE	PED	PED	RAIN	WET	DLIT	STOP SIGN	NO-YIELD	No	Minor Injury (B)	Yes	Pedestrian	13-Oct-19	2019	Portland SE	No	45.51229	-122.666	FALSE	FALSE	FALSE	FALSE
1793611	SE HAW/BRG WATER RAMP	SE WATER AVE	BIKE	TURN	CLR	DRY	DAY	UNKNOWN	NO-YIELD	No	Minor Injury (B)	Yes	Bicycle	28-Oct-18	2018	Portland SE	No	45.51229	-122.666	FALSE	FALSE	FALSE	FALSE
1678368	SE WATER AVE	HAWTHORNE BRIDGE	S-1STOP	REAR	CLR	DRY	DAY	UNKNOWN	F AVOID	No	Possible Injury (C)	Yes	Neither	11-Sep-16	2016	Portland Bridges	No	45.51229	-122.666	FALSE	FALSE	FALSE	FALSE
1674254	SE HAW/BRG WATER RAMP	SE WATER AVE	O-1 L-TURN	TURN	CLR	DRY	DAY	UNKNOWN	OTHR-IMP	No	Possible Injury (C)	Yes	Neither	31-Jul-16	2016	Portland SE	No	45.51229	-122.666	FALSE	FALSE	FALSE	FALSE
1752455	SE HAW/BRG WATER RAMP	SE WATER AVE	S-STRGHT	REAR	RAIN	WET	DUSK	NONE	F AVOID	No	PDO	No	Neither	5-Feb-17	2017	Portland SE	No	45.51239	-122.667	FALSE	FALSE	FALSE	FALSE
1761389	SE HAWTHORNE BLVD	SE WATER AVE	O-1 L-TURN	TURN	CLR	DRY	DAY	UNKNOWN	NO-YIELD	No	PDO	Yes	Neither	2-Jul-17	2017	Portland SE	No	45.51229	-122.666	FALSE	FALSE	FALSE	FALSE
1811242	SE HAWTHORNE BLVD	SE WATER AVE	ANGL-OTH	TURN	CLR	DRY	DAY	UNKNOWN	NO-YIELD	No	PDO	Yes	Neither	15-Jul-18	2018	Portland SE	No	45.51229	-122.666	FALSE	TRUE	FALSE	FALSE
1871270	SE HAWTHORNE BLVD	SE WATER AVE	ANGL-OTH	TURN	CLR	WET	DAY	ONE-WAY	WRNG WAY	No	PDO	Yes	Neither	15-Sep-19	2019	Portland SE	No	45.51229	-122.666	FALSE	FALSE	FALSE	FALSE
1783006	WATER AVE	NB EXTO WATER AVE C6	OVERTURN	NCOL	CLD	DRY	DAY	TRF SIGNAL	TOO-FAST	No	Possible Injury (C)	Yes	Neither	25-Mar-18	2018	Portland SE	Yes	45.51582	-122.666	FALSE	FALSE	FALSE	FALSE
1821552	SE WATER AVE	SE YAMHILL ST	ANGL-OTH	ANGL	CLR	DRY	DAY	STOP SIGN	NO-YIELD	No	PDO	Yes	Neither	23-Sep-18	2018	Portland SE	No	45.51582	-122.666	FALSE	FALSE	FALSE	FALSE
1668238	SE WATER AVE	SE YAMHILL ST	ANGL-OTH	ANGL	CLR	DRY	DAY	STOP SIGN	PAS-STOP	No	Minor Injury (B)	Yes	Neither	1-May-16	2016	Portland SE	No	45.51582	-122.666	FALSE	FALSE	FALSE	FALSE
1681102	WATER AVE	NB EXTO WATER AVE C6	ANGL-OTH	ANGL	CLR	DRY	DAY	STOP SIGN	PAS-STOP	No	Possible Injury (C)	Yes	Neither	30-Oct-16	2016	Portland SE	Yes	45.51582	-122.666	FALSE	FALSE	FALSE	FALSE
1697147	WATER AVE	NB EXTO WATER AVE C6	S-1STOP	REAR	CLR	DRY	DAY	STOP SIGN	F AVOID	No	PDO	Yes	Neither	26-Jun-16	2016	Portland SE	Yes	45.51582	-122.666	FALSE	FALSE	FALSE	FALSE
1821709	SE WATER AVE	SE YAMHILL ST	S-OTHER	REAR	CLR	DRY	DAY	STOP SIGN	F AVOID	No	PDO	Yes	Neither	16-Sep-18	2018	Portland SE	No	45.51582	-122.666	FALSE	FALSE	FALSE	FALSE
1757939	SE WATER AVE	SE YAMHILL ST	S-STRGHT	SS-O	CLR	DRY	DLIT	STOP SIGN	IMP LN C	No	PDO	Yes	Neither	12-Mar-17	2017	Portland SE	No	45.51582	-122.666	FALSE	FALSE	FALSE	FALSE
1781518	WATER AVE	NB EXTO WATER AVE C6	S-1STOP	REAR	CLR	DRY	DAY	STOP SIGN	F AVOID	No	Possible Injury (C)	Yes	Neither	1-Apr-18	2018	Portland SE	Yes	45.51582	-122.666	FALSE	FALSE	FALSE	FALSE
1899213	WATER AVE	NB EXTO WATER AVE C6	S-STRGHT	SS-O	CLR	DRY	DAY	STOP SIGN	IMP LN C	No	PDO	Yes	Neither	26-Jan-20	2020	Portland SE	Yes	45.51582	-122.666	FALSE	FALSE	FALSE	FALSE
1825333	WATER AVE	NB EXTO WATER AVE C6	ANGL-OTH	BACK	CLR	DRY	DAY	UNKNOWN	NO-YIELD	No	PDO	No	Neither	5-Aug-18	2018	Portland SE	No	45.51556	-122.666	FALSE	FALSE	FALSE	FALSE
1883249	SE YAMHILL ST	SE WATER AVE	S-1STOP	REAR	CLR	DRY	DAY	UNKNOWN	F AVOID	No	Possible Injury (C)	No	Neither	10-May-20	2020	Portland SE	No	45.51582	-122.665	FALSE	FALSE	FALSE	FALSE
1818194	WATER AVE RAMP	WATER AVE	PED	PED	CLR	DRY	DAY	WARNING	NO-YIELD	No	Possible Injury (C)	Yes	Pedestrian	29-Jul-18	2018	Portland SE	No	45.5162	-122.666	FALSE	FALSE	FALSE	FALSE
1899421	SE STARK ST	SE MLK/UNION	O-1 L-TURN	TURN	CLR	DRY	DAY	TRF SIGNAL	NO-YIELD	No	PDO	Yes	Neither	14-Jun-20	2020	Portland SE	No	45.51937	-122.662	FALSE	FALSE	FALSE	FALSE
1805896	SE STARK ST	SE MLK/UNION	S-STRGHT	SS-O	RAIN	WET	DAY	ONE-WAY	IMP LN C	No	PDO	Yes	Neither	1-Apr-18	2018	Portland SE	No	45.51937	-122.662	FALSE	FALSE	FALSE	FALSE
1730781	SE STARK ST	SE MLK/UNION	ANGL-OTH	ANGL	CLD	DRY	DAY	TRF SIGNAL	DIS SIG	No	Possible Injury (C)	Yes	Neither	19-Mar-17	2017	Portland SE	No	45.51937	-122.662	FALSE	FALSE	FALSE	FALSE
1762240	SE STARK ST	SE MLK/UNION	S-1STOP	REAR	CLR	DRY	DAY	TRF SIGNAL	VIEW OBS	No	PDO	Yes	Neither	21-May-17	2017	Portland SE	No	45.51937	-122.662	FALSE	FALSE	FALSE	FALSE
1762782	SE STARK ST	SE MLK/UNION	S-1TURN	TURN	CLR	DRY	DAY	TRF SIGNAL	IMP-TURN	No	PDO	Yes	Neither	30-Jul-17	2017	Portland SE	No	45.51937	-122.662	FALSE	FALSE	FALSE	FALSE
1696337	SE STARK ST	SE MLK/UNION	S-1TURN	TURN	CLR	DRY	DAY	TRF SIGNAL	IMP-TURN	No	PDO	Yes	Neither	26-Jun-16	2016	Portland SE	No	45.51937	-122.662	FALSE	TRUE	FALSE	FALSE
1704083	SE MLK/UNION	SE STARK ST	S-STRGHT	SS-O	CLR	DRY	DAY	ONE-WAY	IMP LN C	No	PDO	No	Neither	8-May-16	2016	Portland SE	No	45.51954	-122.662	FALSE	FALSE	FALSE	FALSE
1709165	SE STARK ST	SE MLK/UNION	S-1STOP	REAR	RAIN	WET	DAY	TRF SIGNAL	F AVOID	No	PDO	Yes	Neither	9-Oct-16	2016	Portland SE	No	45.51937	-122.662	FALSE	FALSE	FALSE	FALSE
1694341	SE STARK ST	SE MLK/UNION	S-1STOP	REAR	RAIN	WET	DLIT	TRF SIGNAL	F AVOID	No	PDO	Yes	Neither	6-Mar-16	2016	Portland SE	No	45.51937	-122.662	FALSE	FALSE	FALSE	FALSE
1679784	SE STARK ST	SE MLK/UNION	S-1STOP	REAR	RAIN	WET	DAY	TRF SIGNAL	FATIGUE	No	Possible Injury (C)	Yes	Neither	16-Oct-16	2016	Portland SE	No	45.51937	-122.662	FALSE	FALSE	FALSE	FALSE
1765888	SE STARK ST	SE MLK/UNION	O-1 L-TURN	TURN	CLR	DRY	DAY	TRF SIGNAL	NO-YIELD	No	PDO	Yes	Neither	20-Aug-17	2017	Portland SE	No	45.51937	-122.662	FALSE	FALSE	FALSE	FALSE
1749828	SE STARK ST	SE MLK/UNION	S-1TURN	TURN	UNK	UNK	DAY	TRF SIGNAL	IMP-TURN	No	PDO	Yes	Neither	22-Jan-17	2017	Portland SE	No	45.51937	-122.662	FALSE	FALSE	FALSE	FALSE
1779714	SE STARK ST	SE MLK/UNION	S-1STOP	REAR	CLR	DRY	DAY	TRF SIGNAL	F AVOID	No	Possible Injury (C)	Yes	Neither	25-Feb-18	2018	Portland SE	No	45.51937	-122.662	FALSE	FALSE	FALSE	FALSE
1904681	SE MLK/UNION	SE STARK ST	S-STRGHT	SS-O	CLR	DRY	DAY	ONE-WAY	IMP LN C	No	PDO	No	Neither	19-Jul-20	2020	Portland SE	No	45.5197	-122.662	FALSE	FALSE	FALSE	FALSE

1743044	SE STARK ST	SE MLK/UNION	S-STRGHT	SS-O	CLR	DRY	DLIT	TRF SIGNAL	IMP LN C	No	Minor Injury (B)	Yes	Neither	24-Sep-17	2017	Portland SE	No	45.51937	-122.662	FALSE	FALSE	FALSE	FALSE
1784955	SE STARK ST	SE MLK/UNION	S-1STOP	REAR	CLR	DRY	DAY	TRF SIGNAL	F AVOID	No	Possible Injury (C)	Yes	Neither	6-May-18	2018	Portland SE	No	45.51937	-122.662	FALSE	FALSE	FALSE	FALSE
1846873	SE GRAND AVE	SE STARK ST	PED	PED	RAIN	WET	DLIT	TRF SIGNAL	NT VISBL	No	Possible Injury (C)	Yes	Pedestrian	24-Mar-19	2019	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1863270	SE GRAND AVE	SE STARK ST	FIX OBJ	FIX	CLR	DRY	DAY	TRF SIGNAL	IMP-TURN	No	PDO	Yes	Neither	9-Jun-19	2019	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1788342	SE GRAND AVE	SE STARK ST	ANGL-OTH	ANGL	CLR	DRY	DAY	TRF SIGNAL	DIS SIG	No	Possible Injury (C)	Yes	Neither	8-Jul-18	2018	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1796332	SE GRAND AVE	SE STARK ST	BIKE	TURN	CLR	DRY	DUSK	TRF SIGNAL	NO-YIELD	No	Possible Injury (C)	Yes	Bicycle	11-Nov-18	2018	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1663316	SE GRAND AVE	SE STARK ST	BIKE	TURN	CLR	DRY	DLIT	TRF SIGNAL	IMP-OVER	No	Minor Injury (B)	Yes	Bicycle	3-Apr-16	2016	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1682004	SE GRAND AVE	SE STARK ST	ANGL-OTH	ANGL	RAIN	WET	DAY	TRF SIGNAL	DIS SIG	No	Minor Injury (B)	Yes	Neither	30-Oct-16	2016	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1678691	SE GRAND AVE	SE STARK ST	O-1 L-TURN	TURN	CLR	DRY	DAY	TRF SIGNAL	NO-YIELD	No	Minor Injury (B)	Yes	Neither	9-Oct-16	2016	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1699286	SE GRAND AVE	SE STARK ST	S-STRGHT	SS-O	RAIN	WET	DAY	UNKNOWN	IMP LN C	No	PDO	No	Neither	20-Mar-16	2016	Portland SE	No	45.51919	-122.661	FALSE	FALSE	FALSE	FALSE
1694493	SE GRAND AVE	SE STARK ST	S-STRGHT	SS-O	CLR	DRY	DAWN	TRF SIGNAL	IMP LN C	No	PDO	Yes	Neither	15-May-16	2016	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1745163	SE GRAND AVE	SE STARK ST	ANGL-OTH	ANGL	CLR	DRY	DLIT	TRF SIGNAL	DIS SIG	No	Possible Injury (C)	Yes	Neither	15-Oct-17	2017	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1765280	SE GRAND AVE	SE STARK ST	S-STRGHT	SS-O	CLR	DRY	DAWN	TRF SIGNAL	IMP LN C	No	PDO	Yes	Neither	13-Aug-17	2017	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1807076	SE GRAND AVE	SE WASHINGTON ST	S-1STOP	REAR	CLR	DRY	DAY	ONE-WAY	F AVOID	No	PDO	No	Neither	18-Mar-18	2018	Portland SE	No	45.51891	-122.661	FALSE	FALSE	FALSE	FALSE
1895880	SE GRAND AVE	SE WASHINGTON ST	S-STRGHT	SS-O	RAIN	WET	DAY	ONE-WAY	IMP LN C	No	PDO	No	Neither	5-Jan-20	2020	Portland SE	No	45.51896	-122.661	FALSE	FALSE	FALSE	FALSE
1747661	SE GRAND AVE	SE STARK ST	S-1STOP	REAR	CLR	DRY	DAY	ONE-WAY	F AVOID	No	Possible Injury (C)	Yes	Neither	3-Dec-17	2017	Portland SE	No	45.51917	-122.661	TRUE	FALSE	FALSE	FALSE
1825558	SE STARK ST	SE GRAND AVE	S-OTHER	PARK	RAIN	WET	DLIT	UNKNOWN	OTHER	No	PDO	No	Neither	16-Dec-18	2018	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1796925	SE GRAND AVE	SE STARK ST	O-1 L-TURN	TURN	CLR	DRY	DLIT	TRF SIGNAL	NO-YIELD	No	Possible Injury (C)	Yes	Neither	21-Oct-18	2018	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1870963	SE GRAND AVE	SE STARK ST	S-STRGHT	REAR	CLR	DRY	DAY	TRF SIGNAL	F AVOID	No	PDO	Yes	Neither	28-Jul-19	2019	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1895982	SE GRAND AVE	SE STARK ST	ANGL-OTH	ANGL	CLR	DRY	DAY	TRF SIGNAL	DIS SIG	No	PDO	Yes	Neither	2-Feb-20	2020	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1805265	SE GRAND AVE	SE STARK ST	O-1 L-TURN	TURN	CLR	DRY	DAY	TRF SIGNAL	NO-YIELD	No	PDO	Yes	Neither	25-Feb-18	2018	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1852896	SE GRAND AVE	SE STARK ST	O-1 L-TURN	TURN	CLR	DRY	DLIT	TRF SIGNAL	NO-YIELD	No	Possible Injury (C)	Yes	Neither	20-Oct-19	2019	Portland SE	No	45.51937	-122.661	FALSE	FALSE	FALSE	FALSE
1872990	SE CLAY ST	SE WATER AVE	FIX OBJ	FIX	RAIN	WET	DAY	TRF SIGNAL	OTHR-IMP	No	PDO	Yes	Neither	13-Oct-19	2019	Portland SE	No	45.51154	-122.666	FALSE	FALSE	FALSE	FALSE
1896256	SE CLAY ST	SE WATER AVE	S-1STOP	REAR	CLR	DRY	DLIT	TRF SIGNAL	F AVOID	No	PDO	Yes	Neither	2-Feb-20	2020	Portland SE	No	45.51154	-122.666	FALSE	FALSE	FALSE	FALSE

General & Site Information	
Analyst:	
Agency/Company:	DKS Associates
Date:	7/11/2023
Project Name:	Portland Block B Venue TIS

Intersection Crash Data

Intersection	Intersection Type	Year 2016	2017	2018	2019	2020	Total	Vol Data (6pm pk)
SE Water Avenue/SE Morrison Bridge Off Ramp	Urban 3ST			1			1	381
SE Water Avenue & I-5 Off Ramp/SE Yamhill Street	Urban 4ST	3	1	5	0	2	11	611
SE Water Avenue/SE Salmon Street	Urban 4ST	2	3			1	6	286
SE Water Avenue/SE Main Street	Urban 4ST		1	1			2	279
SE Water Avenue/SE Hawthorne Boulevard	Urban 3ST	2	2	2	2		8	370
SE Water Avenue/SE Clay Street	Urban 3SG				1	1	2	301
SE Stark Street/SE Martin Luther King Jr Boulevard	Urban 3SG	5	6	3	0	2	16	1434
SE Stark Street/SE Grand Avenue	Urban 3SG	5	3	6	4	2	20	1898
							0	
							0	
							0	
							0	
	Total	17	16	18	7	8	66	

Intersection Population Type Crash Rate

Average Crash Rate per intersection type

Intersection Pop. Type	Sum of Crashes	Sum of 5-year MEV	Avg Crash Rate for Ref Pop.	INT in Pop
Rural 3SG	0	0		
Rural 3ST	0	0		
Rural 4SG	0	0		
Rural 4ST	0	0		
Urban 3ST	9	25	0.3552	2
Urban 3SG	38	123	0.3101	3
Urban 4ST	19	40	0.4789	3
Urban 4SG	0	0		

Critical Rate Calculation

Intersection	AADT Entering Intersection	5-year MEV	Crash Total	Intersection Population Type	Intersection Crash Rate	Reference Population Crash Rate	Critical Rate	Over Critical
SE Water Avenue/SE Morrison Bridge Off Ramp	7,043	12.9	1	Urban 3ST	0.08	APM Exhibit 4-1	0.29	Under
SE Water Avenue & I-5 Off Ramp/SE Yamhill Street	11,294	20.6	11	Urban 4ST	0.53	APM Exhibit 4-1	0.41	**Over**
SE Water Avenue/SE Salmon Street	5,287	9.6	6	Urban 4ST	0.62	APM Exhibit 4-1	0.41	**Over**
SE Water Avenue/SE Main Street	5,157	9.4	2	Urban 4ST	0.21	APM Exhibit 4-1	0.41	Under
SE Water Avenue/SE Hawthorne Boulevard	6,839	12.5	8	Urban 3ST	0.64	APM Exhibit 4-1	0.29	**Over**
SE Water Avenue/SE Clay Street	5,564	10.2	2	Urban 3SG	0.20	APM Exhibit 4-1	0.51	Under
SE Stark Street/SE Martin Luther King Jr Boulevard	26,507	48.4	16	Urban 3SG	0.33	APM Exhibit 4-1	0.51	Under
SE Stark Street/SE Grand Avenue	35,084	64.0	20	Urban 3SG	0.31	APM Exhibit 4-1	0.51	Under

SECTION 3: VOLUME DATA

Type of report: Tube Count - Volume Data

LOCATION: SE Water Ave btwn SE Salmon and SE Main St **QC JOB #:** 16263761

SPECIFIC LOCATION: **DIRECTION:** NB, SB

CITY/STATE: Portland, OR **DATE:** Jul 13 2023 - Jul 13 2023

Start Time	Mon	Tue	Wed	Thu 13 Jul 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				22		22			22	
01:00 AM				16		16			16	
02:00 AM				13		13			13	
03:00 AM				21		21			21	
04:00 AM				37		37			37	
05:00 AM				62		62			62	
06:00 AM				123		123			123	
07:00 AM				222		222			222	
08:00 AM				**397**		**397**			**397**	
09:00 AM				365		365			365	
10:00 AM				283		283			283	
11:00 AM				270		270			270	
12:00 PM				279		279			279	
01:00 PM				297		297			297	
02:00 PM				313		313			313	
03:00 PM				473		473			473	
04:00 PM				433		433			433	
05:00 PM				**488**		**488**			**488**	
06:00 PM				264		264			264	
07:00 PM				165		165			165	
08:00 PM				132		132			132	
09:00 PM				126		126			126	
10:00 PM				82		82			82	
11:00 PM				35		35			35	
Day Total				4918		4918			4918	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				8:00 AM 397		8:00 AM 397			8:00 AM 397	
PM Peak Volume				5:00 PM 488		5:00 PM 488			5:00 PM 488	

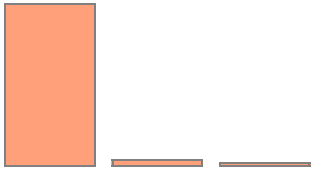
Comments:

Report generated on 7/26/2023 12:23 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Vehicle Classification Data

LOCATION: SE Water Ave btwn SE Salmon and SE Main St
QC JOB #: 16263761
SPECIFIC LOCATION:
DIRECTION: NB, SB
CITY/STATE: Portland, OR
DATE: Jul 13 2023

Start Time	FHWA Classes 1-3	FHWA Classes 4-7	FHWA Classes 8-13	Total
12:00 AM	22	0	0	22
01:00 AM	16	0	0	16
02:00 AM	13	0	0	13
03:00 AM	18	1	2	21
04:00 AM	30	4	3	37
05:00 AM	60	2	0	62
06:00 AM	116	1	6	123
07:00 AM	209	8	5	222
08:00 AM	**376**	12	**9**	**397**
09:00 AM	330	**33**	2	365
10:00 AM	264	17	2	283
11:00 AM	244	21	5	270
12:00 PM	264	11	4	279
01:00 PM	277	15	**5**	297
02:00 PM	297	13	3	313
03:00 PM	455	**17**	1	473
04:00 PM	416	14	3	433
05:00 PM	**483**	4	1	**488**
06:00 PM	260	3	1	264
07:00 PM	165	0	0	165
08:00 PM	131	1	0	132
09:00 PM	126	0	0	126
10:00 PM	82	0	0	82
11:00 PM	35	0	0	35
Day Total	4689	177	52	4918
Percent	95.3%	3.6%	1.1%	
ADT 4918				
AM Peak	8:00 AM	9:00 AM	8:00 AM	8:00 AM
Volume	376	33	9	397
PM Peak	5:00 PM	3:00 PM	1:00 PM	5:00 PM
Volume	483	17	5	488

Comments:

Report generated on 7/26/2023 12:23 PM

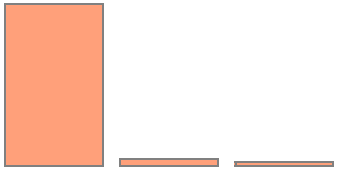
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Vehicle Classification Data

SUMMARY - Tube Count - Vehicle Classification Data

LOCATION: SE Water Ave btwn SE Salmon and SE Main St
SPECIFIC LOCATION:
CITY/STATE: Portland, OR

QC JOB #: 16263761
DIRECTION: NB, SB
DATE: Jul 13 2023

Start Time	FHWA Classes 1-3	FHWA Classes 4-7	FHWA Classes 8-13	Total
Grand Total	4689	177	52	4918
Percent	95.3%	3.6%	1.1%	
ADT 4918				

Comments:

Report generated on 7/26/2023 12:23 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

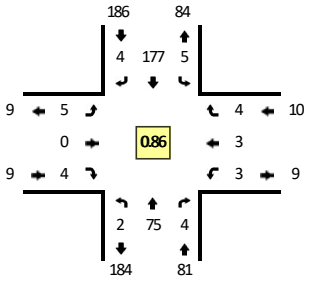
Type of peak hour being reported: Intersection Peak

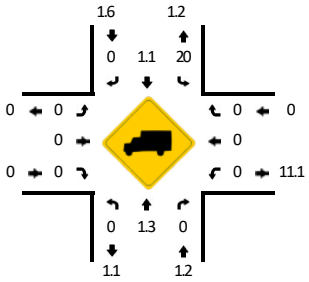
Method for determining peak hour: Total Entering Volume

LOCATION: SE Water St -- SE Salmon St
CITY/STATE: Portland, OR

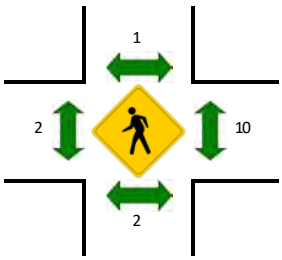
QC JOB #: 16263721
DATE: Thu, Jul 13 2023

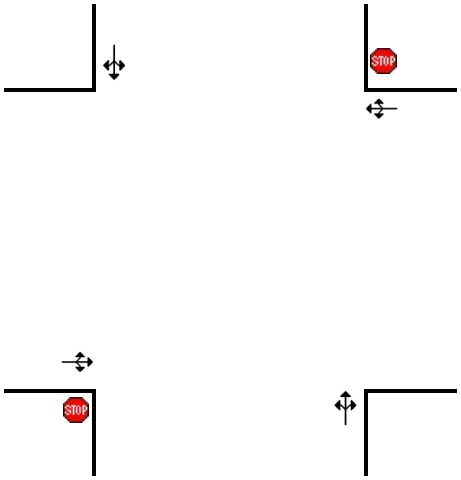
Peak-Hour: 6:00 PM -- 7:00 PM
Peak 15-Min: 6:35 PM -- 6:50 PM

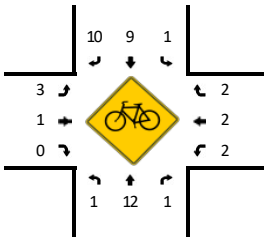


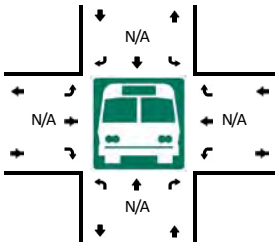


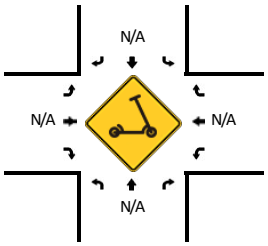
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Salmon St (Eastbound)				SE Salmon St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	9	0	0	1	15	0	0	2	0	0	0	0	0	1	0	28	
6:05 PM	0	3	1	0	0	16	2	0	0	0	1	0	1	0	0	0	24	
6:10 PM	0	8	0	0	1	19	0	0	0	0	0	0	0	0	0	0	28	
6:15 PM	1	8	0	0	0	17	0	0	0	0	0	0	1	0	0	0	27	
6:20 PM	0	5	0	0	0	10	1	0	1	0	1	0	0	0	0	0	18	
6:25 PM	0	6	0	0	0	14	0	0	0	0	0	0	0	0	0	0	20	
6:30 PM	0	4	0	0	0	14	0	0	0	0	0	0	0	2	0	0	20	
6:35 PM	0	5	0	0	0	17	1	0	1	0	2	0	1	0	0	0	27	
6:40 PM	0	12	1	0	1	16	0	0	0	0	0	0	0	0	0	0	30	
6:45 PM	0	6	1	0	0	17	0	0	0	0	0	0	0	0	2	0	26	
6:50 PM	1	2	0	0	1	11	0	0	1	0	0	0	0	0	0	0	16	
6:55 PM	0	7	1	0	1	11	0	0	0	0	0	0	0	1	1	0	22	286
7:00 PM	0	3	0	0	0	15	0	0	0	0	1	0	0	0	0	0	19	277
7:05 PM	0	6	0	0	0	14	0	0	0	0	0	0	1	1	0	0	22	275
7:10 PM	0	3	0	0	0	5	0	0	0	0	0	0	0	0	0	0	8	255
7:15 PM	0	2	0	0	0	7	0	0	1	0	0	0	0	0	0	0	10	238
7:20 PM	0	8	0	0	1	6	0	0	0	0	0	0	1	0	0	0	16	236
7:25 PM	0	1	1	0	0	13	1	0	0	0	0	0	0	0	1	0	17	233
7:30 PM	0	1	0	0	1	16	0	0	1	0	0	0	0	0	0	0	19	232
7:35 PM	0	2	1	0	0	12	0	0	0	0	0	0	0	1	0	0	16	221
7:40 PM	0	1	0	0	0	6	1	0	0	0	0	0	0	0	1	0	9	200
7:45 PM	0	6	0	0	1	10	0	0	0	0	0	0	0	0	0	0	17	191
7:50 PM	0	2	1	0	0	8	0	0	0	0	0	0	0	0	0	0	11	186
7:55 PM	0	2	0	0	2	7	0	0	0	0	1	0	0	0	1	0	13	177

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	92	8	0	4	200	4	0	4	0	8	0	4	0	8	0	332
Heavy Trucks	0	4	0		4	0	0		0	0	0		0	0	0		8
Buses																	
Pedestrians		8				0				0				12			20
Bicycles	0	8	4		0	20	8		8	4	0		0	0	4		56
Scooters																	

Comments:

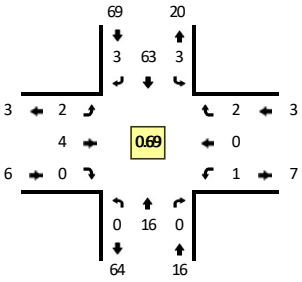
Report generated on 7/26/2023 12:40 PM

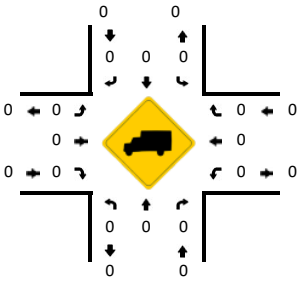
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

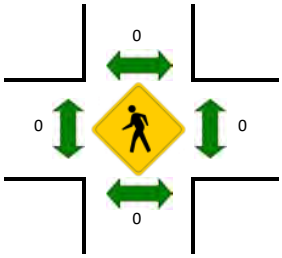
LOCATION: SE Water St -- SE Salmon St | **QC JOB #:** 16263722
CITY/STATE: Portland, OR | **DATE:** Thu, Jul 13 2023

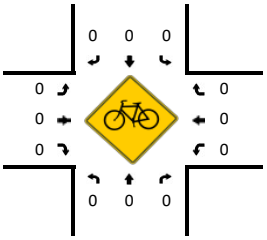
Peak-Hour: 10:00 PM -- 11:00 PM
Peak 15-Min: 10:00 PM -- 10:15 PM

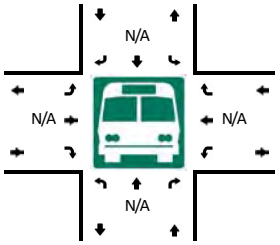


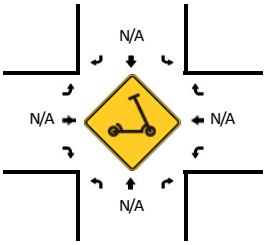


Quality Counts
DATA THAT DRIVES COMMUNITIES









5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Salmon St (Eastbound)				SE Salmon St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	3	0	0	0	11	0	0	1	0	0	0	0	0	1	0	16	
10:05 PM	0	0	0	0	0	9	0	0	0	0	0	0	1	0	0	0	10	
10:10 PM	0	1	0	0	0	5	0	0	1	1	0	0	0	0	0	0	8	
10:15 PM	0	4	0	0	0	5	1	0	0	0	0	0	0	0	0	0	10	
10:20 PM	0	3	0	0	0	5	0	0	0	0	0	0	0	0	1	0	9	
10:25 PM	0	1	0	0	0	5	0	0	0	0	0	0	0	0	0	0	6	
10:30 PM	0	2	0	0	1	3	0	0	0	1	0	0	0	0	0	0	7	
10:35 PM	0	0	0	0	1	6	0	0	0	0	0	0	0	0	0	0	7	
10:40 PM	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	4	
10:45 PM	0	2	0	0	0	6	0	0	0	2	0	0	0	0	0	0	10	
10:50 PM	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	3	
10:55 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4	94
11:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	80
11:05 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	71
11:10 PM	0	0	0	0	0	6	0	0	1	0	0	0	0	0	0	0	7	70
11:15 PM	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	4	64
11:20 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3	58
11:25 PM	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	5	57
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
11:35 PM	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	3	46
11:40 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3	45
11:45 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3	38
11:50 PM	0	1	0	0	2	2	0	0	0	0	0	0	0	0	0	0	5	40
11:55 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3	39

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	16	0	0	0	100	0	0	8	4	0	0	4	0	4	0	136
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 7/26/2023 12:40 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

LU 23-111784 CU AD Exhibit A-10

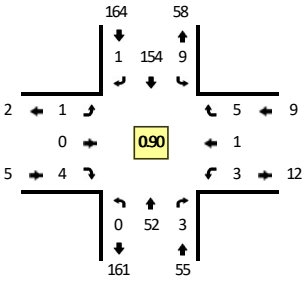
Type of peak hour being reported: Intersection Peak

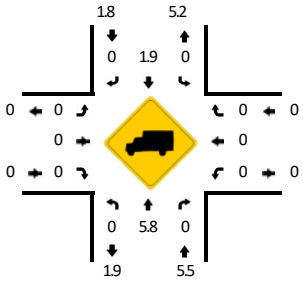
Method for determining peak hour: Total Entering Volume

LOCATION: SE Water St -- SE Salmon St
CITY/STATE: Portland, OR

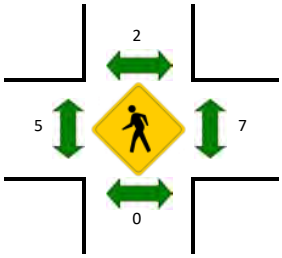
QC JOB #: 16263723
DATE: Sat, Jul 15 2023

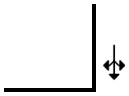
Peak-Hour: 6:05 PM -- 7:05 PM
Peak 15-Min: 6:05 PM -- 6:20 PM

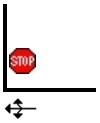


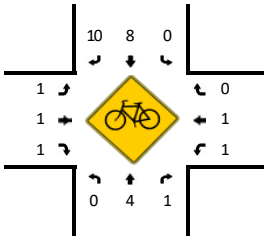


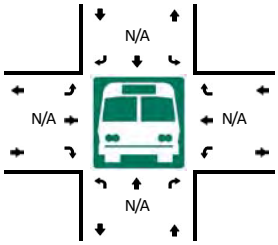
Quality Counts
DATA THAT DRIVES COMMUNITIES

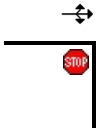


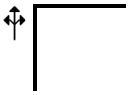


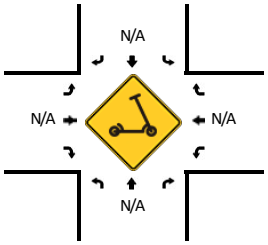












5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Salmon St (Eastbound)				SE Salmon St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	8	
6:05 PM	0	4	1	0	2	22	0	0	0	0	2	0	0	1	0	0	32	
6:10 PM	0	2	0	0	1	9	0	0	0	0	0	0	0	0	2	0	14	
6:15 PM	0	3	0	0	0	15	1	0	0	0	0	0	0	0	0	0	19	
6:20 PM	0	5	0	0	1	10	0	0	1	0	1	0	1	0	0	0	19	
6:25 PM	0	8	0	0	1	9	0	0	0	0	0	0	0	0	0	0	18	
6:30 PM	0	3	0	0	0	12	0	0	0	0	0	0	1	0	0	0	16	
6:35 PM	0	6	0	0	0	11	0	0	0	0	0	0	0	0	0	0	17	
6:40 PM	0	6	0	0	0	14	0	0	0	0	0	0	0	0	0	0	20	
6:45 PM	0	3	0	0	2	15	0	0	0	0	0	0	0	0	0	0	20	
6:50 PM	0	3	1	0	0	15	0	0	0	0	1	0	1	0	1	0	22	
6:55 PM	0	8	0	0	0	10	0	0	0	0	0	0	0	0	1	0	19	224
7:00 PM	0	1	1	0	2	12	0	0	0	0	0	0	0	0	1	0	17	233
7:05 PM	0	4	0	0	0	8	2	0	0	1	0	0	0	0	0	0	15	216
7:10 PM	0	5	0	0	0	10	0	0	0	1	1	0	0	0	0	0	17	219
7:15 PM	0	1	0	0	0	20	0	0	0	0	0	0	1	0	0	0	22	222
7:20 PM	0	1	0	0	1	14	0	0	0	0	0	0	0	1	1	0	18	221
7:25 PM	0	0	0	0	1	22	0	0	0	0	0	0	0	0	0	0	23	226
7:30 PM	0	8	0	0	1	8	1	0	0	0	0	0	1	0	0	0	19	229
7:35 PM	0	2	0	0	1	12	0	0	0	0	1	0	0	0	0	0	16	228
7:40 PM	0	0	0	0	0	8	2	0	0	0	0	0	0	1	0	0	11	219
7:45 PM	0	3	0	0	0	11	2	0	0	0	0	0	0	0	0	0	16	215
7:50 PM	0	1	0	0	0	16	0	0	0	0	0	0	0	0	0	0	17	210
7:55 PM	1	5	0	0	0	27	0	0	0	0	0	0	0	0	0	0	33	224

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	36	4	0	12	184	4	0	0	0	8	0	0	4	8	0	260
Heavy Trucks	0	4	0		0	0	0		0	0	0		0	0	0		4
Buses																	
Pedestrians		0				0				4				4			8
Bicycles	0	4	0		0	0	12		4	0	0		0	0	0		20
Scooters																	

Comments:

Report generated on 7/26/2023 12:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

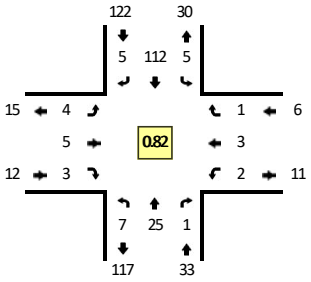
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

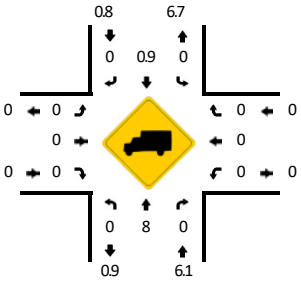
LOCATION: SE Water St -- SE Salmon St
CITY/STATE: Portland, OR

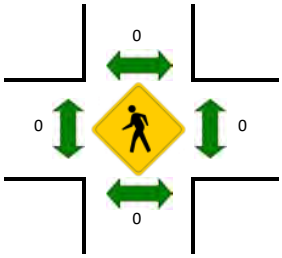
QC JOB #: 16263724
DATE: Sat, Jul 15 2023

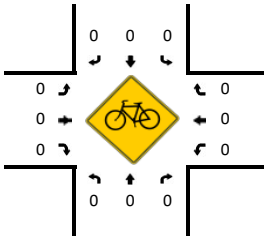
Peak-Hour: 10:15 PM -- 11:15 PM
Peak 15-Min: 10:15 PM -- 10:30 PM

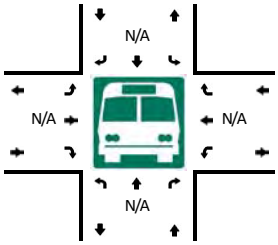


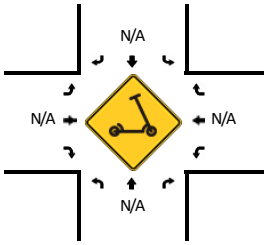
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Salmon St (Eastbound)				SE Salmon St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	1	0	0	0	2	0	0	0	1	0	0	1	0	0	0	5	
10:05 PM	1	3	0	0	2	10	0	0	1	1	0	0	0	0	0	0	18	
10:10 PM	0	3	0	0	1	9	0	0	1	0	0	0	0	0	0	0	14	
10:15 PM	1	4	0	0	0	10	0	0	2	1	0	0	1	1	0	0	20	
10:20 PM	0	2	1	0	2	9	1	0	0	0	0	0	0	0	0	0	15	
10:25 PM	1	4	0	0	0	12	0	0	0	0	1	0	0	0	0	0	18	
10:30 PM	0	1	0	0	0	12	0	0	0	0	0	0	0	0	0	0	13	
10:35 PM	0	1	0	0	0	10	1	0	0	2	0	0	1	0	0	0	15	
10:40 PM	0	2	0	0	0	9	1	0	0	0	0	0	0	0	0	0	12	
10:45 PM	1	2	0	0	1	9	0	0	0	0	0	0	0	0	0	0	13	
10:50 PM	0	4	0	0	0	6	0	0	0	0	0	0	0	0	0	0	10	
10:55 PM	3	1	0	0	1	11	0	0	0	1	0	0	0	0	0	0	17	170
11:00 PM	0	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	4	169
11:05 PM	1	3	0	0	1	10	1	0	0	0	0	0	0	1	1	0	18	169
11:10 PM	0	0	0	0	0	13	1	0	1	1	1	0	0	1	0	0	18	173
11:15 PM	1	0	0	0	0	5	0	0	0	1	1	0	0	1	0	0	9	162
11:20 PM	0	2	0	0	1	7	2	0	0	0	0	0	0	0	0	0	12	159
11:25 PM	0	1	1	0	0	5	2	0	0	0	0	0	0	1	0	0	10	151
11:30 PM	0	2	0	0	0	8	2	0	0	0	0	0	2	0	0	0	14	152
11:35 PM	3	1	0	0	2	4	0	0	0	1	0	0	0	1	0	0	12	149
11:40 PM	0	3	0	0	0	8	1	0	0	2	1	0	1	1	0	0	17	154
11:45 PM	2	3	0	0	1	5	1	0	0	0	1	0	0	0	0	0	13	154
11:50 PM	1	1	0	0	0	5	1	0	0	0	1	0	0	0	0	0	9	153
11:55 PM	0	0	0	0	1	4	1	0	1	0	1	0	0	1	0	0	9	145

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	8	40	4	0	8	124	4	0	8	4	4	0	4	4	0	0	212
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 7/26/2023 12:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

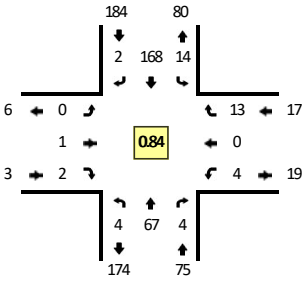
Type of peak hour being reported: Intersection Peak

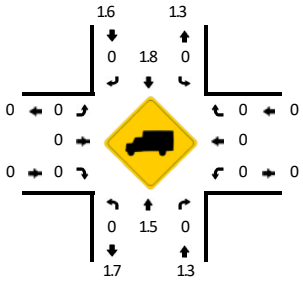
Method for determining peak hour: Total Entering Volume

LOCATION: SE Water St -- SE Main St
CITY/STATE: Portland, OR

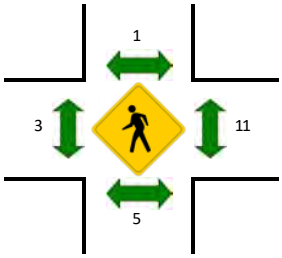
QC JOB #: 16263725
DATE: Thu, Jul 13 2023

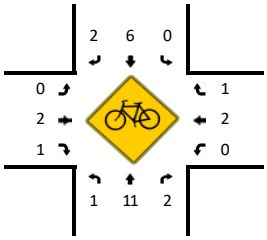
Peak-Hour: 6:00 PM -- 7:00 PM
Peak 15-Min: 6:35 PM -- 6:50 PM

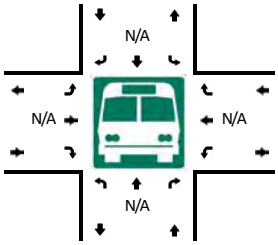


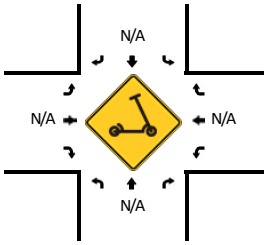


Quality Counts
DATA THAT DRIVES COMMUNITIES









5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Main St (Eastbound)				SE Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	7	0	0	2	14	0	0	0	0	0	0	0	0	2	0	25	
6:05 PM	0	4	0	0	0	19	0	0	0	0	0	0	0	0	0	0	23	
6:10 PM	0	8	0	0	0	18	0	0	0	0	0	0	2	0	0	0	28	
6:15 PM	0	7	0	0	0	18	0	0	0	0	1	0	0	0	2	0	28	
6:20 PM	3	5	0	0	2	7	1	0	0	0	0	0	0	0	0	0	18	
6:25 PM	0	4	0	0	0	14	0	0	0	0	0	0	0	0	2	0	20	
6:30 PM	0	2	2	0	1	12	0	0	0	0	0	0	1	0	1	0	19	
6:35 PM	1	4	1	0	0	21	1	0	0	0	0	0	0	0	1	0	29	
6:40 PM	0	10	1	0	2	14	0	0	0	0	0	0	0	0	2	0	29	
6:45 PM	0	6	0	0	2	15	0	0	0	0	0	0	1	0	1	0	25	
6:50 PM	0	2	0	0	3	8	0	0	0	1	1	0	0	0	1	0	16	
6:55 PM	0	8	0	0	2	8	0	0	0	0	0	0	0	0	1	0	19	279
7:00 PM	0	2	1	0	3	14	0	0	0	0	0	0	1	1	1	0	23	277
7:05 PM	0	6	0	0	3	12	0	0	0	0	0	0	1	0	0	0	22	276
7:10 PM	0	3	0	0	1	4	0	0	0	0	0	0	0	0	0	0	8	256
7:15 PM	0	2	0	0	0	7	0	0	0	0	0	0	1	0	0	0	10	238
7:20 PM	0	7	0	0	0	6	0	0	0	0	0	0	2	0	1	0	16	236
7:25 PM	0	1	0	0	1	13	0	0	0	0	0	0	0	0	1	0	16	232
7:30 PM	0	1	1	0	0	16	0	0	0	0	0	0	0	0	0	0	18	231
7:35 PM	0	2	0	0	2	9	1	0	0	0	0	0	0	0	2	0	16	218
7:40 PM	0	1	1	0	4	5	0	0	0	0	1	0	0	0	0	0	12	201
7:45 PM	0	5	2	0	2	7	0	0	0	0	0	0	0	1	0	0	17	193
7:50 PM	0	1	3	0	1	7	0	0	1	0	0	0	1	0	1	0	15	192
7:55 PM	0	1	0	0	1	6	0	0	0	0	0	0	0	0	1	0	9	182

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	80	8	0	16	200	4	0	0	0	0	0	4	0	16	0	332
Heavy Trucks	0	4	0		0	0	0		0	0	0		0	0	0		4
Buses																	
Pedestrians		0				0				0				20			20
Bicycles	0	12	4		0	12	0		0	4	0		0	4	0		36
Scooters																	

Comments:

Report generated on 7/26/2023 12:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

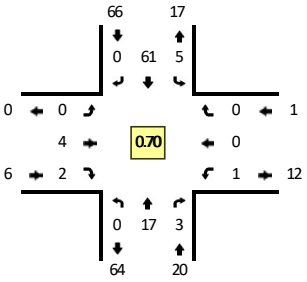
Type of peak hour being reported: Intersection Peak

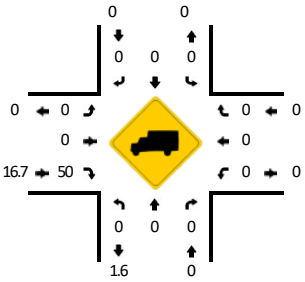
Method for determining peak hour: Total Entering Volume

LOCATION: SE Water St -- SE Main St
CITY/STATE: Portland, OR

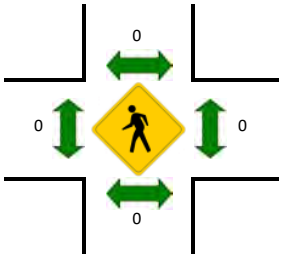
QC JOB #: 16263726
DATE: Thu, Jul 13 2023

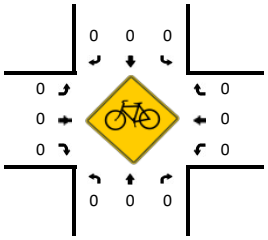
Peak-Hour: 10:00 PM -- 11:00 PM
Peak 15-Min: 10:00 PM -- 10:15 PM

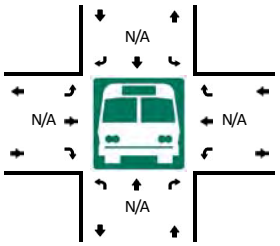


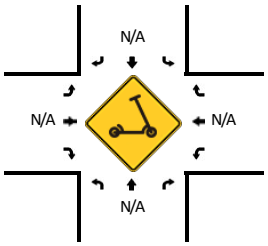


Quality Counts
DATA THAT DRIVES COMMUNITIES









5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Main St (Eastbound)				SE Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	3	0	0	0	9	0	0	0	0	0	0	0	0	0	0	12	
10:05 PM	0	0	0	0	1	12	0	0	0	0	0	0	0	0	0	0	13	
10:10 PM	0	1	1	0	0	5	0	0	0	1	0	0	0	0	0	0	8	
10:15 PM	0	4	0	0	0	5	0	0	0	0	0	0	0	0	0	0	9	
10:20 PM	0	3	0	0	0	5	0	0	0	0	0	0	0	0	0	0	8	
10:25 PM	0	1	0	0	0	5	0	0	0	1	1	0	0	0	0	0	8	
10:30 PM	0	2	0	0	1	3	0	0	0	0	0	0	1	0	0	0	7	
10:35 PM	0	0	1	0	3	3	0	0	0	0	1	0	0	0	0	0	8	
10:40 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	
10:45 PM	0	2	1	0	0	6	0	0	0	1	0	0	0	0	0	0	10	
10:50 PM	0	1	0	0	0	2	0	0	0	1	0	0	0	0	0	0	4	
10:55 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4	93
11:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	83
11:05 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	71
11:10 PM	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	6	69
11:15 PM	0	1	0	0	0	3	0	0	0	1	0	0	0	0	0	0	5	65
11:20 PM	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3	60
11:25 PM	0	0	1	0	0	4	0	0	0	0	0	0	0	0	0	0	5	57
11:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	51
11:35 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	45
11:40 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3	46
11:45 PM	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3	39
11:50 PM	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	4	39
11:55 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3	38

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	16	4	0	4	104	0	0	0	4	0	0	0	0	0	0	132
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 7/26/2023 12:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

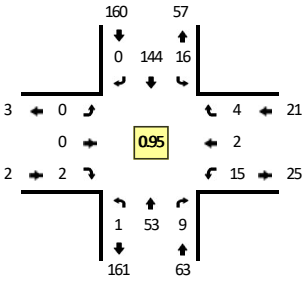
Type of peak hour being reported: Intersection Peak

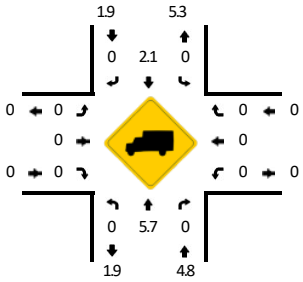
Method for determining peak hour: Total Entering Volume

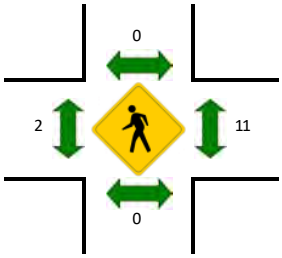
LOCATION: SE Water St -- SE Main St
CITY/STATE: Portland, OR

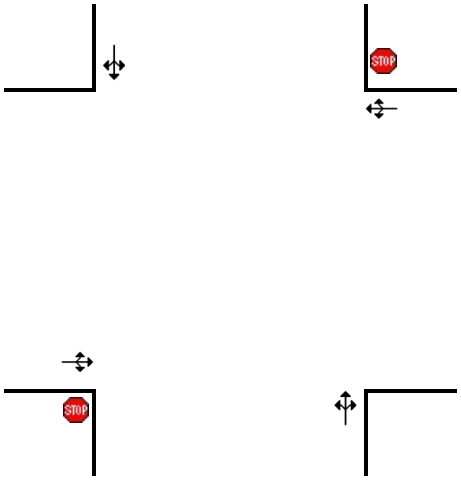
QC JOB #: 16263727
DATE: Sat, Jul 15 2023

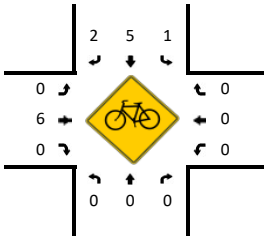
Peak-Hour: 6:05 PM -- 7:05 PM
Peak 15-Min: 6:05 PM -- 6:20 PM

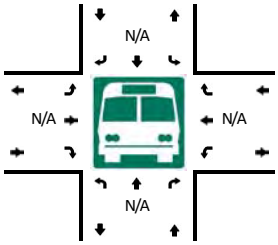


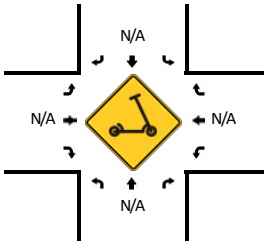












5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Main St (Eastbound)				SE Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	4	0	0	0	3	0	0	0	0	0	0	0	0	1	0	8	
6:05 PM	0	3	1	0	2	21	0	0	0	0	0	0	2	0	2	0	31	
6:10 PM	0	1	1	0	0	10	0	0	0	0	0	0	2	0	0	0	14	
6:15 PM	1	2	1	0	0	13	0	0	0	0	0	0	2	0	1	0	20	
6:20 PM	0	5	1	0	2	10	0	0	0	0	0	0	1	0	0	0	19	
6:25 PM	0	7	4	0	2	9	0	0	0	0	0	0	1	0	1	0	24	
6:30 PM	0	3	0	0	0	13	0	0	0	0	1	0	0	1	0	0	18	
6:35 PM	0	6	0	0	0	11	0	0	0	0	0	0	3	0	0	0	20	
6:40 PM	0	6	0	0	0	13	0	0	0	0	0	0	0	0	0	0	19	
6:45 PM	0	3	0	0	3	12	0	0	0	0	0	0	0	0	0	0	18	
6:50 PM	0	5	1	0	4	13	0	0	0	0	0	0	1	0	0	0	24	
6:55 PM	0	9	0	0	2	9	0	0	0	0	1	0	0	1	0	0	22	237
7:00 PM	0	3	0	0	1	10	0	0	0	0	0	0	3	0	0	0	17	246
7:05 PM	0	3	2	0	2	6	0	0	0	0	0	0	1	0	1	0	15	230
7:10 PM	0	3	0	0	0	11	0	0	0	0	0	0	1	0	1	0	16	232
7:15 PM	0	1	0	0	1	18	0	0	0	0	0	0	0	0	0	0	20	232
7:20 PM	0	0	0	0	1	12	0	0	0	1	0	0	0	0	1	0	15	228
7:25 PM	0	0	1	0	4	13	0	0	0	0	0	0	0	0	0	0	18	222
7:30 PM	0	6	2	0	0	8	2	0	0	0	0	0	0	0	1	0	19	223
7:35 PM	0	1	1	0	0	12	0	0	1	0	0	0	2	0	0	0	17	220
7:40 PM	0	0	1	0	0	9	0	0	0	0	0	0	1	0	0	0	11	212
7:45 PM	1	3	0	0	5	6	0	0	0	0	0	0	0	0	0	0	15	209
7:50 PM	0	1	0	0	0	15	0	0	0	0	0	0	0	0	1	0	17	202
7:55 PM	0	4	1	0	0	27	0	0	0	0	0	0	0	0	1	0	33	213

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	24	12	0	8	176	0	0	0	0	0	0	24	0	12	0	260
Heavy Trucks	0	4	0		0	0	0		0	0	0		0	0	0		4
Buses																	
Pedestrians		0				0				0				4			4
Bicycles	0	0	0		0	0	4		0	12	0		0	0	0		16
Scooters																	

Comments:

Report generated on 7/26/2023 12:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

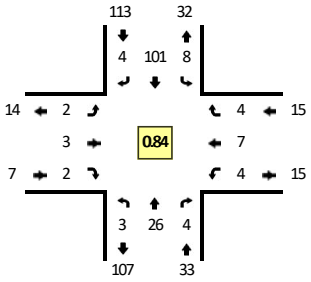
Type of peak hour being reported: Intersection Peak

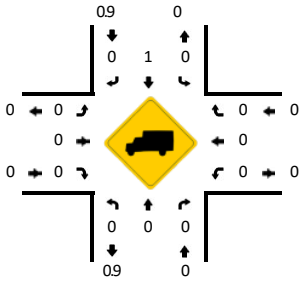
Method for determining peak hour: Total Entering Volume

LOCATION: SE Water St -- SE Main St
CITY/STATE: Portland, OR

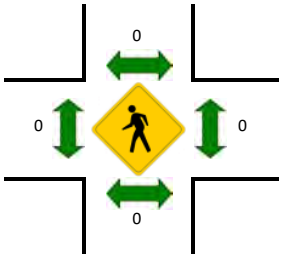
QC JOB #: 16263728
DATE: Sat, Jul 15 2023

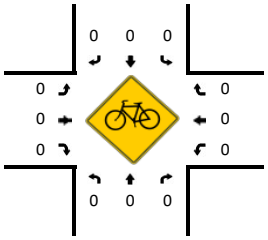
Peak-Hour: 10:00 PM -- 11:00 PM
Peak 15-Min: 10:25 PM -- 10:40 PM

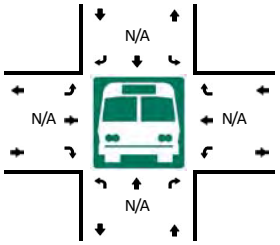


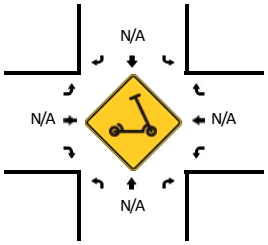


Quality Counts
DATA THAT DRIVES COMMUNITIES









5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Main St (Eastbound)				SE Main St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	1	0	0	0	3	0	0	0	1	0	0	0	1	0	0	6	
10:05 PM	0	3	0	0	0	9	1	0	1	0	0	0	1	2	0	0	17	
10:10 PM	0	3	1	0	0	9	0	0	0	0	0	0	0	0	1	0	14	
10:15 PM	0	2	1	0	0	9	1	0	1	0	0	0	0	0	0	0	14	
10:20 PM	0	2	1	0	3	4	0	0	0	0	0	0	1	0	0	0	11	
10:25 PM	0	3	0	0	1	13	0	0	0	0	1	0	1	0	1	0	20	
10:30 PM	0	1	1	0	1	10	0	0	0	0	0	0	0	1	0	0	14	
10:35 PM	0	0	0	0	0	13	0	0	0	0	1	0	1	1	0	0	16	
10:40 PM	0	2	0	0	0	9	0	0	0	1	0	0	0	0	0	0	12	
10:45 PM	1	2	0	0	1	7	0	0	0	1	0	0	0	1	0	0	13	
10:50 PM	0	4	0	0	2	4	0	0	0	0	0	0	0	0	0	0	10	
10:55 PM	2	3	0	0	0	11	2	0	0	0	0	0	0	1	2	0	21	168
11:00 PM	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4	166
11:05 PM	1	3	0	0	2	6	1	0	0	0	0	0	0	0	1	0	14	163
11:10 PM	0	1	0	0	2	12	0	0	0	1	0	0	0	1	0	0	17	166
11:15 PM	0	0	0	0	0	6	0	0	1	0	0	0	0	0	0	0	7	159
11:20 PM	0	0	0	0	1	5	1	0	2	0	0	0	0	0	0	0	9	157
11:25 PM	0	1	1	0	1	4	0	0	1	0	0	0	1	2	0	0	11	148
11:30 PM	0	2	0	0	0	8	0	0	0	0	0	0	0	0	0	0	10	144
11:35 PM	0	3	0	0	0	5	1	0	0	0	0	0	0	0	1	0	10	138
11:40 PM	0	2	0	0	1	7	0	0	1	0	1	0	0	0	0	0	12	138
11:45 PM	0	4	1	0	1	7	0	0	0	0	0	0	1	2	2	0	18	143
11:50 PM	0	1	0	0	3	4	0	0	0	0	1	0	0	0	0	0	9	142
11:55 PM	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	6	127

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	16	4	0	8	144	0	0	0	0	8	0	8	8	4	0	200
Heavy Trucks	0	0	0		0	4	0		0	0	0		0	0	0		4
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 7/26/2023 12:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

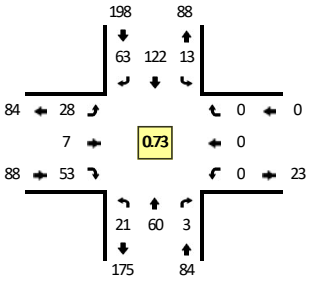
Type of peak hour being reported: Intersection Peak

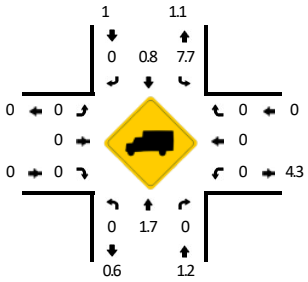
Method for determining peak hour: Total Entering Volume

LOCATION: SE Water St -- Hawthorne Ramp
CITY/STATE: Portland, OR

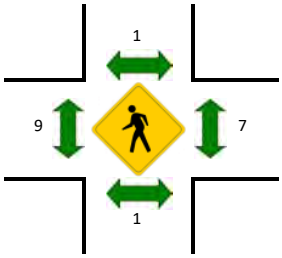
QC JOB #: 16263729
DATE: Thu, Jul 13 2023

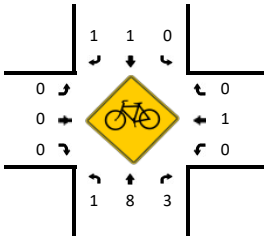
Peak-Hour: 6:00 PM -- 7:00 PM
Peak 15-Min: 6:05 PM -- 6:20 PM

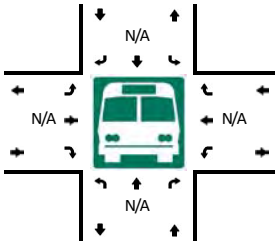


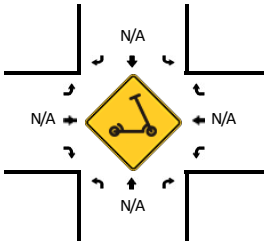


Quality Counts
DATA THAT DRIVES COMMUNITIES









5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				Hawthorne Ramp (Eastbound)				Hawthorne Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	2	7	0	0	0	10	6	0	3	0	8	0	0	0	0	0	36	
6:05 PM	2	4	0	0	1	8	11	0	3	4	6	0	0	0	0	0	39	
6:10 PM	5	2	0	0	1	14	6	0	5	1	7	0	0	0	0	0	41	
6:15 PM	2	9	1	0	2	13	7	0	4	0	8	0	0	0	0	0	46	
6:20 PM	1	6	0	0	1	7	4	0	1	0	7	0	0	0	0	0	27	
6:25 PM	4	2	1	0	0	6	7	0	4	0	7	0	0	0	0	0	31	
6:30 PM	0	4	0	0	2	7	6	0	1	0	4	0	0	0	0	0	24	
6:35 PM	0	8	0	0	3	18	3	0	3	1	3	0	0	0	0	0	39	
6:40 PM	0	4	0	0	0	14	2	0	2	0	2	0	0	0	0	0	24	
6:45 PM	1	4	0	0	2	13	2	0	0	0	0	0	0	0	0	0	22	
6:50 PM	1	3	0	0	1	8	4	0	2	1	1	0	0	0	0	0	21	
6:55 PM	3	7	1	0	0	4	5	0	0	0	0	0	0	0	0	0	20	370
7:00 PM	0	3	0	0	0	8	4	0	0	0	1	0	0	0	0	0	16	350
7:05 PM	0	4	0	0	1	7	4	0	1	1	0	0	0	0	0	0	18	329
7:10 PM	1	3	0	0	1	3	1	0	1	1	0	0	0	0	0	0	11	299
7:15 PM	0	2	0	0	1	5	2	0	0	0	0	0	0	0	0	0	10	263
7:20 PM	1	2	0	0	1	4	2	0	0	0	0	0	0	0	0	0	10	246
7:25 PM	0	1	0	0	1	9	3	0	0	0	0	0	0	0	0	0	14	229
7:30 PM	0	1	1	0	3	10	3	0	1	1	0	0	0	0	0	0	20	225
7:35 PM	2	1	0	0	2	6	10	0	0	0	0	0	0	0	0	0	21	207
7:40 PM	0	2	0	0	0	6	2	0	0	0	0	0	0	0	0	0	10	193
7:45 PM	0	1	0	0	0	6	2	0	2	0	0	0	0	0	0	0	11	182
7:50 PM	0	0	0	0	2	2	3	0	0	0	0	0	0	0	0	0	7	168
7:55 PM	0	0	0	0	0	7	1	0	1	0	0	0	0	0	0	0	9	157

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	36	60	4	0	16	140	96	0	48	20	84	0	0	0	0	0	504
Heavy Trucks	0	0	0		4	4	0		0	0	0		0	0	0		8
Buses																	
Pedestrians		4				0				8				4			16
Bicycles	0	8	4		0	0	0		0	0	0		0	0	0		12
Scooters																	

Comments:

Report generated on 7/26/2023 12:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

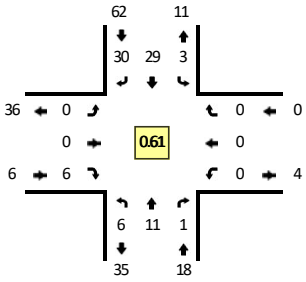
Type of peak hour being reported: Intersection Peak

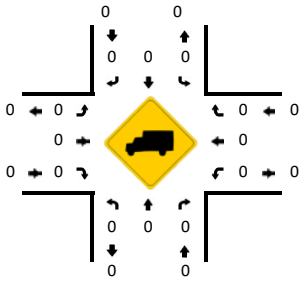
Method for determining peak hour: Total Entering Volume

LOCATION: SE Water St -- Hawthorne Ramp
CITY/STATE: Portland, OR

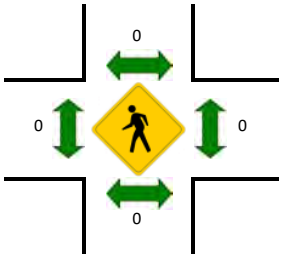
QC JOB #: 16263730
DATE: Thu, Jul 13 2023

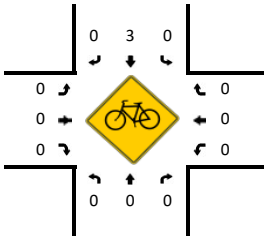
Peak-Hour: 10:00 PM -- 11:00 PM
Peak 15-Min: 10:00 PM -- 10:15 PM

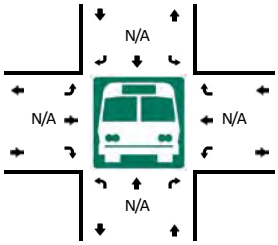


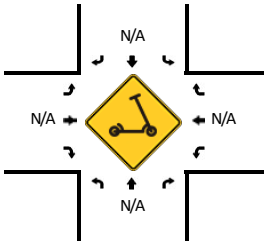


Quality Counts
DATA THAT DRIVES COMMUNITIES









5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				Hawthorne Ramp (Eastbound)				Hawthorne Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	4	0	0	0	3	6	0	0	0	1	0	0	0	0	0	14	
10:05 PM	0	1	0	0	1	5	7	0	0	0	0	0	0	0	0	0	14	
10:10 PM	0	1	0	0	0	5	1	0	0	0	0	0	0	0	0	0	7	
10:15 PM	1	0	0	0	0	2	3	0	0	0	0	0	0	0	0	0	6	
10:20 PM	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	4	
10:25 PM	3	1	0	0	0	3	2	0	0	0	1	0	0	0	0	0	10	
10:30 PM	0	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	4	
10:35 PM	0	0	0	0	0	1	3	0	0	0	4	0	0	0	0	0	8	
10:40 PM	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	3	
10:45 PM	1	2	1	0	0	3	2	0	0	0	0	0	0	0	0	0	9	
10:50 PM	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	3	
10:55 PM	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	4	86
11:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	73
11:05 PM	3	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	4	63
11:10 PM	1	0	0	0	0	3	2	0	0	0	0	0	0	0	0	0	6	62
11:15 PM	2	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	5	61
11:20 PM	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	4	61
11:25 PM	0	1	0	0	1	4	1	0	0	0	0	0	0	0	0	0	7	58
11:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	55
11:35 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	49
11:40 PM	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	3	49
11:45 PM	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	3	43
11:50 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	41
11:55 PM	0	1	0	0	0	1	2	0	0	0	0	0	0	0	0	0	4	41

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	24	0	0	4	52	56	0	0	0	4	0	0	0	0	0	140
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	4	0		0	0	0		0	0	0		4
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

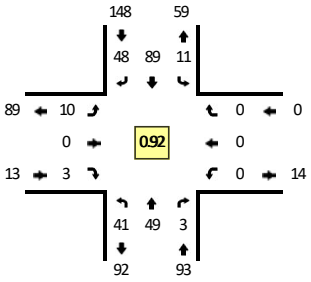
Type of peak hour being reported: Intersection Peak

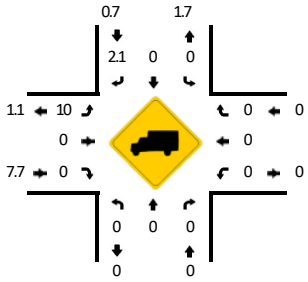
Method for determining peak hour: Total Entering Volume

LOCATION: SE Water St -- Hawthorne Ramp
CITY/STATE: Portland, OR

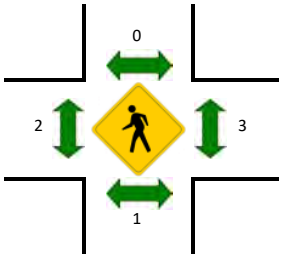
QC JOB #: 16263731
DATE: Sat, Jul 15 2023

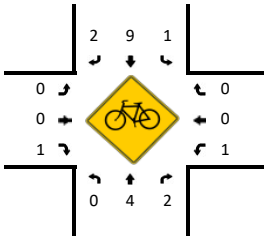
Peak-Hour: 6:05 PM -- 7:05 PM
Peak 15-Min: 6:35 PM -- 6:50 PM

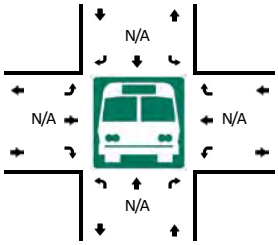


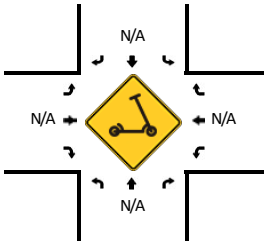


Quality Counts
DATA THAT DRIVES COMMUNITIES









5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				Hawthorne Ramp (Eastbound)				Hawthorne Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	6	3	0	0	0	1	3	0	0	0	0	0	0	0	0	0	13	
6:05 PM	1	3	0	0	3	9	10	0	1	0	1	0	0	0	0	0	28	
6:10 PM	2	2	0	0	0	9	3	0	0	0	0	0	0	0	0	0	16	
6:15 PM	2	4	0	0	1	7	5	0	0	0	1	0	0	0	0	0	20	
6:20 PM	9	3	0	0	0	6	4	0	0	0	0	0	0	0	0	0	22	
6:25 PM	4	5	0	0	0	6	1	0	1	0	0	0	0	0	0	0	17	
6:30 PM	4	2	0	0	1	7	3	0	0	0	0	0	0	0	0	0	17	
6:35 PM	5	6	1	0	0	12	2	0	1	0	0	0	0	0	0	0	27	
6:40 PM	1	4	0	0	1	4	7	0	1	0	0	0	0	0	0	0	18	
6:45 PM	6	4	0	0	1	9	4	0	0	0	0	0	0	0	0	0	24	
6:50 PM	3	6	2	0	3	7	3	0	1	0	0	0	0	0	0	0	25	
6:55 PM	2	7	0	0	0	7	2	0	1	0	0	0	0	0	0	0	19	246
7:00 PM	2	3	0	0	1	6	4	0	4	0	1	0	0	0	0	0	21	254
7:05 PM	1	5	0	0	2	4	2	0	0	0	0	0	0	0	0	0	14	240
7:10 PM	1	5	0	0	3	5	3	0	0	0	0	0	0	0	0	0	17	241
7:15 PM	1	0	0	0	0	13	8	0	1	0	1	0	0	0	0	0	24	245
7:20 PM	3	0	0	0	1	6	6	0	1	0	0	0	0	0	0	0	17	240
7:25 PM	0	1	1	0	1	9	2	0	0	0	0	0	0	0	0	0	14	237
7:30 PM	0	3	0	0	0	7	3	0	0	0	0	0	0	0	0	0	13	233
7:35 PM	0	0	1	0	1	9	5	0	1	0	0	0	0	0	0	0	17	223
7:40 PM	0	0	0	0	0	4	5	0	0	0	0	0	0	0	0	0	9	214
7:45 PM	0	2	0	0	2	5	1	0	2	0	0	0	0	0	0	0	12	202
7:50 PM	1	1	0	0	0	8	5	0	0	0	0	0	0	0	0	0	15	192
7:55 PM	2	4	0	0	1	26	7	0	2	0	0	0	0	0	0	0	42	215

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	48	56	4	0	8	100	52	0	8	0	0	0	0	0	0	0	276
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				4			4
Bicycles	0	0	0		0	12	0		0	0	0		0	0	0		12
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

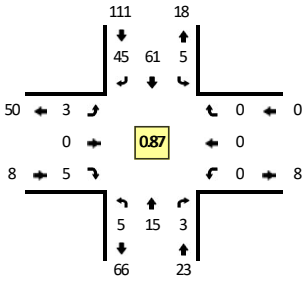
Type of peak hour being reported: Intersection Peak

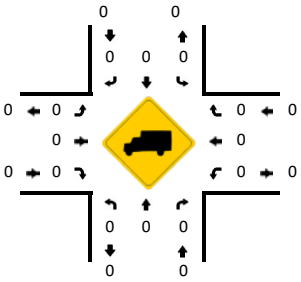
Method for determining peak hour: Total Entering Volume

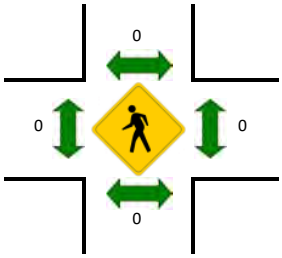
LOCATION: SE Water St -- Hawthorne Ramp
CITY/STATE: Portland, OR

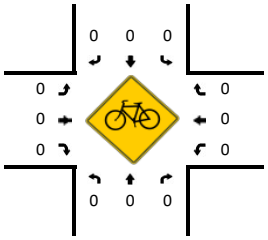
QC JOB #: 16263732
DATE: Sat, Jul 15 2023

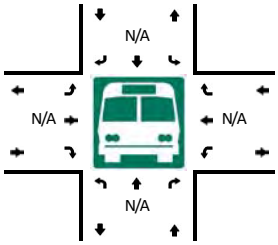
Peak-Hour: 10:00 PM -- 11:00 PM
Peak 15-Min: 10:25 PM -- 10:40 PM

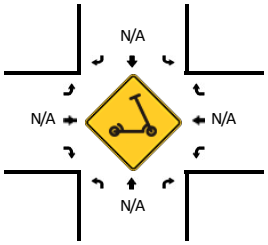












5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				Hawthorne Ramp (Eastbound)				Hawthorne Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	0	0	0	1	4	3	0	0	0	0	0	0	0	0	0	8	
10:05 PM	1	2	0	0	1	4	1	0	1	0	2	0	0	0	0	0	12	
10:10 PM	0	2	0	0	0	9	3	0	0	0	0	0	0	0	0	0	14	
10:15 PM	0	1	0	0	0	3	5	0	0	0	0	0	0	0	0	0	9	
10:20 PM	0	0	1	0	1	4	1	0	0	0	0	0	0	0	0	0	7	
10:25 PM	1	1	1	0	0	7	9	0	0	0	0	0	0	0	0	0	19	
10:30 PM	0	1	0	0	1	6	2	0	0	0	0	0	0	0	0	0	10	
10:35 PM	0	1	0	0	1	2	8	0	0	0	0	0	0	0	0	0	12	
10:40 PM	1	1	0	0	0	7	4	0	1	0	0	0	0	0	0	0	14	
10:45 PM	1	3	0	0	0	6	3	0	0	0	1	0	0	0	0	0	14	
10:50 PM	0	2	1	0	0	2	2	0	1	0	1	0	0	0	0	0	9	
10:55 PM	1	1	0	0	0	7	4	0	0	0	1	0	0	0	0	0	14	142
11:00 PM	1	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	4	138
11:05 PM	0	3	0	0	0	7	0	0	1	0	0	0	0	0	0	0	11	137
11:10 PM	0	0	0	0	0	6	7	0	0	0	0	0	0	0	0	0	13	136
11:15 PM	0	0	0	0	0	4	3	0	0	0	0	0	0	0	0	0	7	134
11:20 PM	0	1	0	0	0	3	2	0	0	0	0	0	0	0	0	0	6	133
11:25 PM	0	2	0	0	0	3	2	0	0	0	0	0	0	0	0	0	7	121
11:30 PM	0	1	0	0	0	5	3	0	0	0	0	0	0	0	0	0	9	120
11:35 PM	0	2	0	0	1	5	0	0	0	0	0	0	0	0	0	0	8	116
11:40 PM	1	2	1	0	1	2	5	0	0	0	0	0	0	0	0	0	12	114
11:45 PM	0	3	1	0	0	4	5	0	1	0	0	0	0	0	0	0	14	114
11:50 PM	0	1	0	0	0	2	1	0	0	0	0	0	0	0	0	0	4	109
11:55 PM	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	5	100

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	12	4	0	8	60	76	0	0	0	0	0	0	0	0	0	164
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

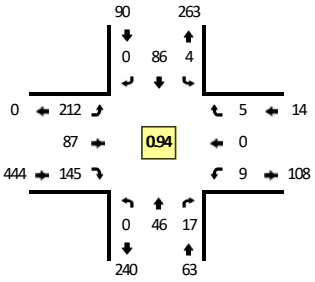
Type of peak hour being reported: Intersection Peak

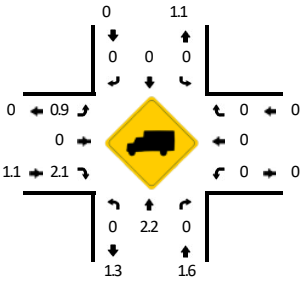
Method for determining peak hour: Total Entering Volume

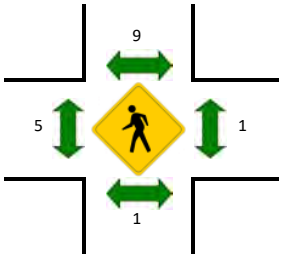
LOCATION: SE Water St -- SE Yamhill St
CITY/STATE: Portland, OR

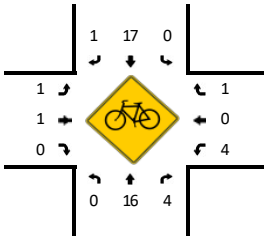
QC JOB #: 16263733
DATE: Thu, Jul 13 2023

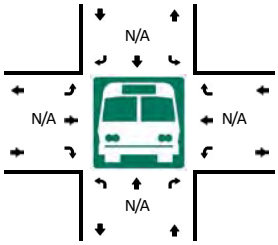
Peak-Hour: 6:10 PM -- 7:10 PM
Peak 15-Min: 6:10 PM -- 6:25 PM

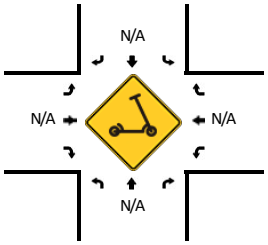












5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Yamhill St (Eastbound)				SE Yamhill St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	4	3	0	1	10	0	0	4	9	7	0	3	0	1	0	42	
6:05 PM	0	5	0	0	1	11	0	0	17	10	8	0	1	0	0	0	53	
6:10 PM	0	7	3	0	2	15	0	0	19	7	14	0	1	0	0	0	68	
6:15 PM	0	7	0	0	0	10	0	0	14	10	18	0	2	0	0	0	61	
6:20 PM	0	3	1	0	0	6	0	0	15	4	5	0	0	0	0	0	34	
6:25 PM	0	0	1	0	0	9	0	0	14	4	7	0	1	0	1	0	37	
6:30 PM	0	4	0	0	0	6	0	0	29	12	17	0	1	0	0	0	69	
6:35 PM	0	6	1	0	0	7	0	0	14	6	9	0	2	0	1	0	46	
6:40 PM	0	6	0	0	0	10	0	0	19	6	7	0	0	0	0	0	48	
6:45 PM	0	3	4	0	0	6	0	0	26	5	12	0	0	0	0	0	56	
6:50 PM	0	2	0	0	0	6	0	0	21	5	12	0	1	0	1	0	48	
6:55 PM	0	1	4	0	0	6	0	0	10	9	13	0	1	0	0	0	44	606
7:00 PM	0	3	1	0	0	3	0	0	17	9	12	0	0	0	1	0	46	610
7:05 PM	0	4	2	0	2	2	0	0	14	10	19	0	0	0	1	0	54	611
7:10 PM	0	1	0	0	1	2	0	0	21	7	13	0	1	0	0	0	46	589
7:15 PM	0	1	0	0	0	2	0	0	20	5	13	0	1	0	2	0	44	572
7:20 PM	0	4	3	0	0	3	0	0	11	6	11	0	1	0	1	0	40	578
7:25 PM	0	1	0	0	1	3	0	0	17	4	16	0	0	0	1	0	43	584
7:30 PM	0	2	0	0	0	4	0	0	20	12	17	0	0	0	1	0	56	571
7:35 PM	0	2	1	0	1	4	0	0	15	7	15	0	0	0	3	0	48	573
7:40 PM	0	1	1	0	0	2	0	0	10	9	12	0	2	0	0	0	37	562
7:45 PM	0	4	1	0	1	3	0	0	21	5	14	0	0	0	0	0	49	555
7:50 PM	0	2	1	0	0	2	0	0	13	6	7	0	1	0	0	0	32	539
7:55 PM	0	1	1	0	0	1	0	0	8	3	12	0	2	0	1	0	29	524

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	68	16	0	8	124	0	0	192	84	148	0	12	0	0	0	652
Heavy Trucks	0	0	0		0	0	0		0	0	8		0	0	0		8
Buses																	
Pedestrians		0				12				8				0			20
Bicycles	0	8	8		0	8	0		0	0	0		8	0	0		32
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

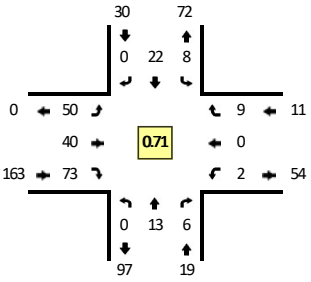
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

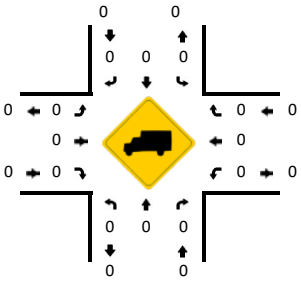
LOCATION: SE Water St -- SE Yamhill St
CITY/STATE: Portland, OR

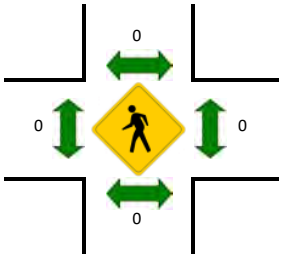
QC JOB #: 16263734
DATE: Thu, Jul 13 2023

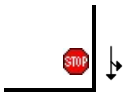
Peak-Hour: 10:00 PM -- 11:00 PM
Peak 15-Min: 10:00 PM -- 10:15 PM

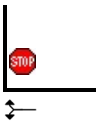


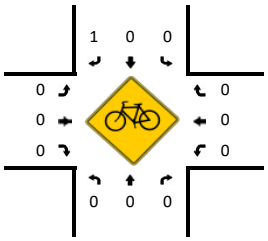
Quality Counts
DATA THAT DRIVES COMMUNITIES

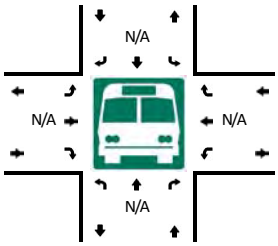


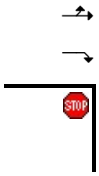


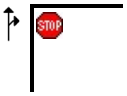


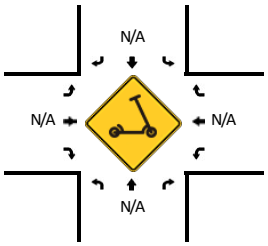












5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Yamhill St (Eastbound)				SE Yamhill St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	3	1	0	0	6	0	0	8	5	6	0	0	0	2	0	31	
10:05 PM	0	0	0	0	1	3	0	0	6	3	6	0	0	0	1	0	20	
10:10 PM	0	1	1	0	2	1	0	0	8	4	8	0	0	0	2	0	27	
10:15 PM	0	3	0	0	3	3	0	0	6	4	5	0	0	0	1	0	25	
10:20 PM	0	0	4	0	1	1	0	0	5	4	5	0	0	0	1	0	21	
10:25 PM	0	1	0	0	0	2	0	0	3	2	4	0	0	0	0	0	12	
10:30 PM	0	1	0	0	0	1	0	0	1	5	5	0	0	0	0	0	13	
10:35 PM	0	0	0	0	1	0	0	0	2	2	7	0	2	0	1	0	15	
10:40 PM	0	1	0	0	0	1	0	0	1	1	6	0	0	0	0	0	10	
10:45 PM	0	1	0	0	0	1	0	0	2	4	8	0	0	0	0	0	16	
10:50 PM	0	1	0	0	0	0	0	0	2	4	9	0	0	0	0	0	16	
10:55 PM	0	1	0	0	0	3	0	0	6	2	4	0	0	0	1	0	17	223
11:00 PM	0	0	1	0	0	0	0	0	2	1	4	0	0	0	0	0	8	200
11:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	180
11:10 PM	0	0	1	0	0	3	0	0	2	1	4	0	0	0	0	0	11	164
11:15 PM	0	1	0	0	0	1	0	0	3	2	2	0	0	0	0	0	9	148
11:20 PM	0	0	0	0	1	2	0	0	4	1	2	0	0	0	0	0	10	137
11:25 PM	0	1	0	0	0	3	0	0	3	3	4	0	0	0	1	0	15	140
11:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	128
11:35 PM	0	0	0	0	0	0	0	0	2	1	4	0	0	0	0	0	7	120
11:40 PM	0	0	0	0	0	2	0	0	3	0	3	0	0	0	0	0	8	118
11:45 PM	0	0	0	0	0	1	0	0	1	3	1	0	0	0	0	0	6	108
11:50 PM	0	0	0	0	0	0	0	0	4	3	4	0	0	0	0	0	11	103
11:55 PM	0	0	0	0	0	1	0	0	4	2	2	0	0	0	0	0	9	95

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	16	8	0	12	40	0	0	88	48	80	0	0	0	20	0	312
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

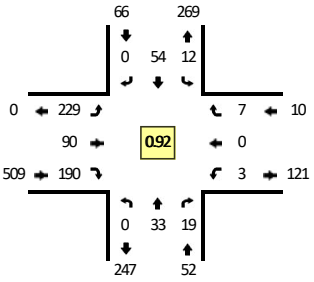
Type of peak hour being reported: Intersection Peak

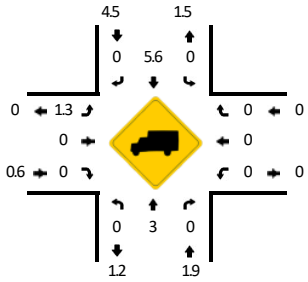
Method for determining peak hour: Total Entering Volume

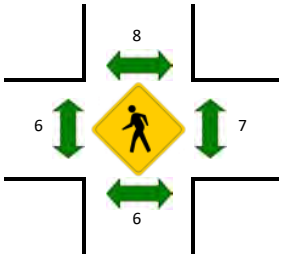
LOCATION: SE Water St -- SE Yamhill St
CITY/STATE: Portland, OR

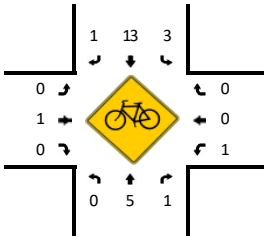
QC JOB #: 16263735
DATE: Sat, Jul 15 2023

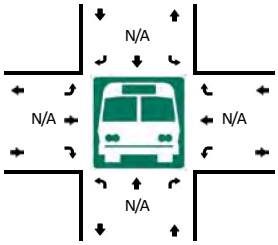
Peak-Hour: 6:05 PM -- 7:05 PM
Peak 15-Min: 6:05 PM -- 6:20 PM

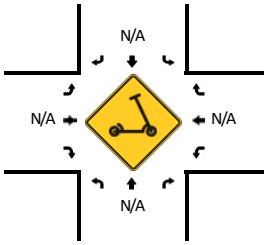












5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Yamhill St (Eastbound)				SE Yamhill St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	10	0	0	1	7	0	0	26	1	7	0	1	0	3	0	56	
6:05 PM	0	4	1	0	3	7	0	0	35	18	18	0	0	0	3	0	89	
6:10 PM	0	2	0	0	2	0	0	0	15	5	16	0	0	0	0	0	40	
6:15 PM	0	1	1	0	0	5	0	0	13	9	15	0	0	0	0	0	44	
6:20 PM	0	3	4	0	0	6	0	0	14	4	12	0	1	0	0	0	44	
6:25 PM	0	6	0	0	1	4	0	0	27	10	13	0	0	0	1	0	62	
6:30 PM	0	1	4	0	1	4	0	0	11	5	15	0	0	0	0	0	41	
6:35 PM	0	3	4	0	0	2	0	0	17	8	16	0	0	0	0	0	50	
6:40 PM	0	2	2	0	0	4	0	0	16	5	16	0	0	0	1	0	46	
6:45 PM	0	3	1	0	0	5	0	0	19	5	22	0	0	0	0	0	55	
6:50 PM	0	1	0	0	2	5	0	0	14	1	15	0	0	0	0	0	38	
6:55 PM	0	4	2	0	1	9	0	0	24	10	17	0	1	0	1	0	69	634
7:00 PM	0	3	0	0	2	3	0	0	24	10	15	0	1	0	1	0	59	637
7:05 PM	0	2	3	0	0	5	0	0	10	12	13	0	1	0	1	0	47	595
7:10 PM	0	2	0	0	0	3	0	0	16	8	11	0	0	0	6	0	46	601
7:15 PM	0	1	2	0	1	4	0	0	14	12	17	0	0	0	4	0	55	612
7:20 PM	0	1	1	0	0	4	0	0	23	8	11	0	0	0	1	0	49	617
7:25 PM	0	0	0	0	0	10	0	0	14	11	24	0	0	0	0	0	59	614
7:30 PM	0	1	4	0	0	5	0	0	13	2	11	0	0	0	0	0	36	609
7:35 PM	0	2	0	0	0	3	0	0	14	13	18	0	0	0	0	0	50	609
7:40 PM	0	0	0	0	0	4	0	0	16	6	11	0	1	0	0	0	38	601
7:45 PM	0	2	3	0	0	1	0	0	20	4	23	0	1	0	0	0	54	600
7:50 PM	0	4	0	0	0	3	0	0	11	3	17	0	0	0	0	0	38	600
7:55 PM	0	6	1	0	0	11	0	0	8	1	18	0	0	0	0	0	45	576

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	28	8	0	20	48	0	0	252	128	196	0	0	0	12	0	692
Heavy Trucks	0	0	0		0	0	0		4	0	0		0	0	0		4
Buses																	
Pedestrians		12				12				0				0			24
Bicycles	0	8	0		4	16	0		0	0	0		4	0	0		32
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

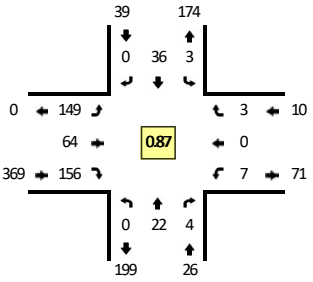
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

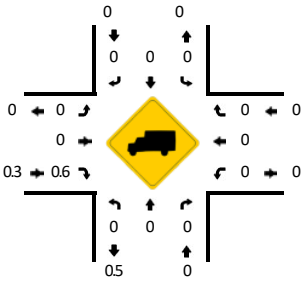
LOCATION: SE Water St -- SE Yamhill St
CITY/STATE: Portland, OR

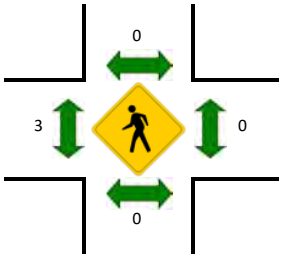
QC JOB #: 16263736
DATE: Sat, Jul 15 2023

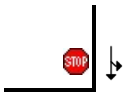
Peak-Hour: 10:05 PM -- 11:05 PM
Peak 15-Min: 10:15 PM -- 10:30 PM

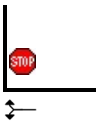


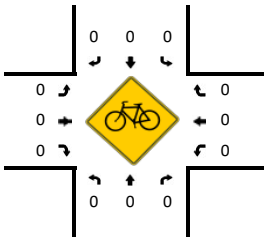
Quality Counts
DATA THAT DRIVES COMMUNITIES

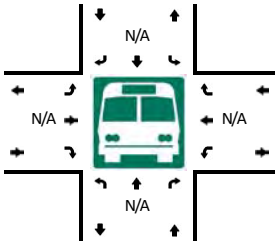


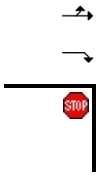


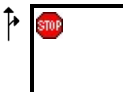


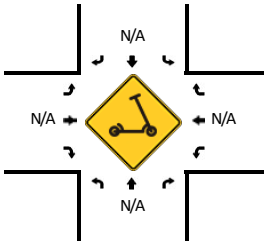












5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Yamhill St (Eastbound)				SE Yamhill St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	1	1	0	0	0	0	0	10	6	3	0	0	0	3	0	24	
10:05 PM	0	3	1	0	1	3	0	0	20	3	19	0	0	0	0	0	50	
10:10 PM	0	5	0	0	0	2	0	0	12	5	9	0	0	0	0	0	33	
10:15 PM	0	6	0	0	0	6	0	0	12	2	15	0	0	0	0	0	41	
10:20 PM	0	1	0	0	0	1	0	0	14	6	20	0	1	0	0	0	43	
10:25 PM	0	3	0	0	0	4	0	0	11	9	12	0	2	0	2	0	43	
10:30 PM	0	0	0	0	2	2	0	0	6	6	13	0	1	0	1	0	31	
10:35 PM	0	0	0	0	0	4	0	0	15	3	14	0	3	0	0	0	39	
10:40 PM	0	0	1	0	0	6	0	0	15	1	13	0	0	0	0	0	36	
10:45 PM	0	1	1	0	0	2	0	0	15	4	10	0	0	0	0	0	33	
10:50 PM	0	1	1	0	0	1	0	0	12	7	8	0	0	0	0	0	30	
10:55 PM	0	0	0	0	0	4	0	0	9	7	12	0	0	0	0	0	32	435
11:00 PM	0	2	0	0	0	1	0	0	8	11	11	0	0	0	0	0	33	444
11:05 PM	0	3	0	0	1	2	0	0	12	7	17	0	0	0	0	0	42	436
11:10 PM	0	1	0	0	1	6	0	0	9	5	13	0	0	0	0	0	35	438
11:15 PM	0	0	0	0	0	2	0	0	8	5	4	0	0	0	3	0	22	419
11:20 PM	0	0	0	0	0	4	0	0	10	5	11	0	0	0	0	0	30	406
11:25 PM	0	0	1	0	0	2	0	0	6	5	11	0	0	0	0	0	25	388
11:30 PM	0	0	0	0	0	2	0	0	6	6	9	0	0	0	0	0	23	380
11:35 PM	0	2	0	0	0	1	0	0	6	4	9	0	1	0	0	0	23	364
11:40 PM	0	3	0	0	0	3	0	0	5	5	9	0	0	0	0	0	25	353
11:45 PM	0	5	1	0	0	1	0	0	6	3	7	0	0	0	0	0	23	343
11:50 PM	0	1	1	0	1	2	0	0	2	2	5	0	0	0	0	0	14	327
11:55 PM	0	0	0	0	0	1	0	0	2	4	2	0	0	0	0	0	9	304

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	40	0	0	0	44	0	0	148	68	188	0	12	0	8	0	508
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

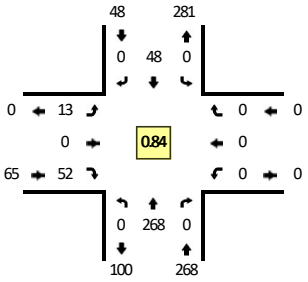
Type of peak hour being reported: Intersection Peak

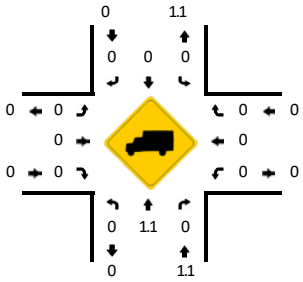
Method for determining peak hour: Total Entering Volume

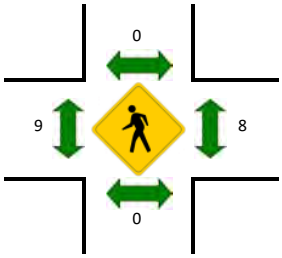
LOCATION: SE Water St -- Morrison Ramp
CITY/STATE: Portland, OR

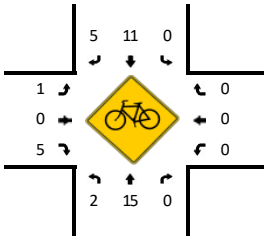
QC JOB #: 16263737
DATE: Thu, Jul 13 2023

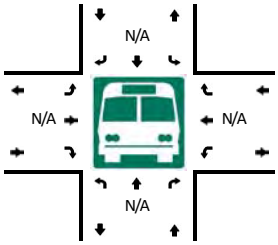
Peak-Hour: 6:05 PM -- 7:05 PM
Peak 15-Min: 6:05 PM -- 6:20 PM

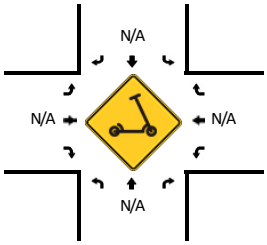












5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				Morrison Ramp (Eastbound)				Morrison Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	10	0	0	0	2	0	0	6	0	7	0	0	0	0	0	25	
6:05 PM	0	21	0	0	0	6	0	0	3	0	6	0	0	0	0	0	36	
6:10 PM	0	27	0	0	0	6	0	0	3	0	11	0	0	0	0	0	47	
6:15 PM	0	20	0	0	0	6	0	0	1	0	4	0	0	0	0	0	31	
6:20 PM	0	19	0	0	0	2	0	0	2	0	4	0	0	0	0	0	27	
6:25 PM	0	16	0	0	0	6	0	0	1	0	3	0	0	0	0	0	26	
6:30 PM	0	30	0	0	0	4	0	0	0	0	2	0	0	0	0	0	36	
6:35 PM	0	24	0	0	0	2	0	0	0	0	5	0	0	0	0	0	31	
6:40 PM	0	24	0	0	0	5	0	0	0	0	5	0	0	0	0	0	34	
6:45 PM	0	29	0	0	0	2	0	0	0	0	5	0	0	0	0	0	36	
6:50 PM	0	26	0	0	0	1	0	0	1	0	5	0	0	0	0	0	33	
6:55 PM	0	11	0	0	0	5	0	0	0	0	1	0	0	0	0	0	17	379
7:00 PM	0	21	0	0	0	3	0	0	2	0	1	0	0	0	0	0	27	381
7:05 PM	0	18	0	0	0	3	0	0	0	0	0	0	0	0	0	0	21	366
7:10 PM	0	21	0	0	0	3	0	0	1	0	0	0	0	0	0	0	25	344
7:15 PM	0	25	0	0	0	1	0	0	0	0	1	0	0	0	0	0	27	340
7:20 PM	0	15	0	0	0	2	0	0	0	0	1	0	0	0	0	0	18	331
7:25 PM	0	17	0	0	0	3	0	0	1	0	2	0	0	0	0	0	23	328
7:30 PM	0	23	0	0	0	2	0	0	0	0	2	0	0	0	0	0	27	319
7:35 PM	0	20	0	0	0	2	0	0	1	0	3	0	0	0	0	0	26	314
7:40 PM	0	12	0	0	0	1	0	0	1	0	1	0	0	0	0	0	15	295
7:45 PM	0	29	0	0	0	4	0	0	0	0	0	0	0	0	0	0	33	292
7:50 PM	0	15	0	0	0	1	0	0	0	0	1	0	0	0	0	0	17	276
7:55 PM	0	10	0	0	0	1	0	0	1	0	0	0	0	0	0	0	12	271

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	272	0	0	0	72	0	0	28	0	84	0	0	0	0	0	456
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				8				16			24
Bicycles	8	4	0		0	8	4		0	0	0		0	0	0		24
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

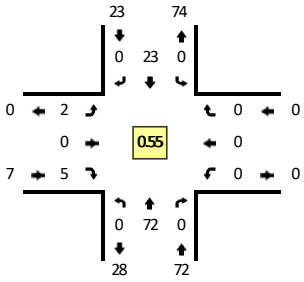
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

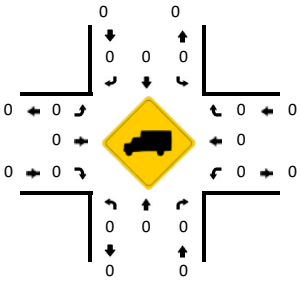
LU 23-111784 CU AD Exhibit A-10

Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

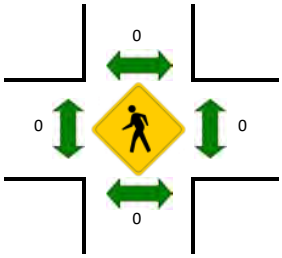
LOCATION: SE Water St -- Morrison Ramp | **QC JOB #:** 16263738
CITY/STATE: Portland, OR | **DATE:** Thu, Jul 13 2023

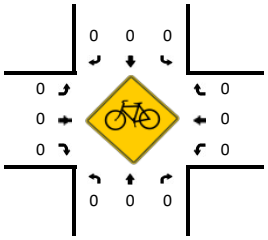
Peak-Hour: 10:00 PM -- 11:00 PM
Peak 15-Min: 10:00 PM -- 10:15 PM

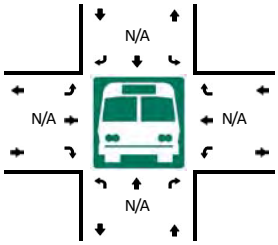


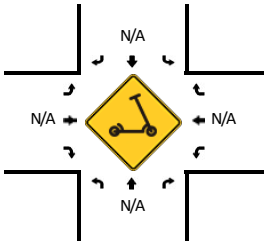


Quality Counts
DATA THAT DRIVES COMMUNITIES









5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				Morrison Ramp (Eastbound)				Morrison Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	12	0	0	0	5	0	0	0	0	1	0	0	0	0	0	18	
10:05 PM	0	8	0	0	0	4	0	0	0	0	0	0	0	0	0	0	12	
10:10 PM	0	13	0	0	0	1	0	0	1	0	1	0	0	0	0	0	16	
10:15 PM	0	9	0	0	0	5	0	0	0	0	0	0	0	0	0	0	14	
10:20 PM	0	7	0	0	0	1	0	0	0	0	1	0	0	0	0	0	9	
10:25 PM	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	0	6	
10:30 PM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3	
10:35 PM	0	3	0	0	0	1	0	0	1	0	0	0	0	0	0	0	5	
10:40 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	
10:45 PM	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5	
10:50 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
10:55 PM	0	7	0	0	0	2	0	0	0	0	1	0	0	0	0	0	10	102
11:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	86
11:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	74
11:10 PM	0	2	0	0	0	2	0	0	1	0	1	0	0	0	0	0	6	64
11:15 PM	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5	55
11:20 PM	0	4	0	0	0	2	0	0	1	0	1	0	0	0	0	0	8	54
11:25 PM	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	8	56
11:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	54
11:35 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	51
11:40 PM	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	5	54
11:45 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	51
11:50 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	51
11:55 PM	0	6	0	0	0	1	0	0	1	0	0	0	0	0	0	0	8	49

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	132	0	0	0	40	0	0	4	0	8	0	0	0	0	0	184
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

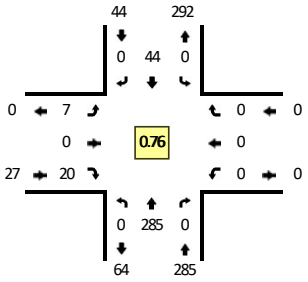
Report generated on 7/26/2023 12:41 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

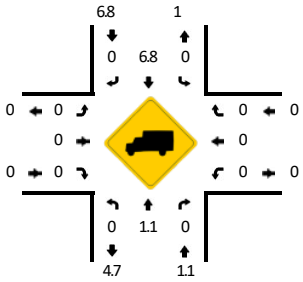
LU 23-111784 CU AD Exhibit A-10

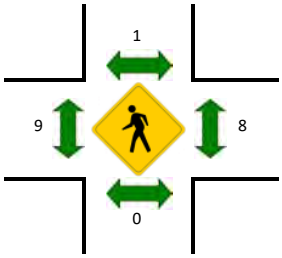
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

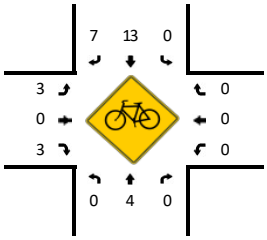
LOCATION: SE Water St -- Morrison Ramp | **QC JOB #:** 16263739
CITY/STATE: Portland, OR | **DATE:** Sat, Jul 15 2023

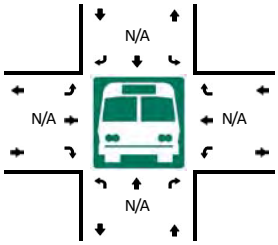
Peak-Hour: 6:00 PM -- 7:00 PM
Peak 15-Min: 6:00 PM -- 6:15 PM

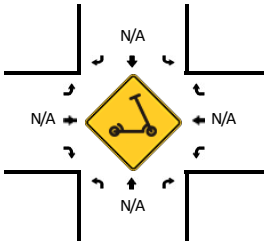












5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				Morrison Ramp (Eastbound)				Morrison Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	41	0	0	0	4	0	0	0	0	2	0	0	0	0	0	47	
6:05 PM	0	40	0	0	0	5	0	0	1	0	2	0	0	0	0	0	48	
6:10 PM	0	18	0	0	0	1	0	0	2	0	1	0	0	0	0	0	22	
6:15 PM	0	17	0	0	0	4	0	0	0	0	1	0	0	0	0	0	22	
6:20 PM	0	16	0	0	0	4	0	0	0	0	2	0	0	0	0	0	22	
6:25 PM	0	36	0	0	0	4	0	0	0	0	1	0	0	0	0	0	41	
6:30 PM	0	14	0	0	0	4	0	0	0	0	1	0	0	0	0	0	19	
6:35 PM	0	20	0	0	0	1	0	0	1	0	1	0	0	0	0	0	23	
6:40 PM	0	18	0	0	0	4	0	0	2	0	0	0	0	0	0	0	24	
6:45 PM	0	20	0	0	0	4	0	0	0	0	1	0	0	0	0	0	25	
6:50 PM	0	16	0	0	0	3	0	0	1	0	4	0	0	0	0	0	24	
6:55 PM	0	29	0	0	0	6	0	0	0	0	4	0	0	0	0	0	39	356
7:00 PM	0	27	0	0	0	4	0	0	1	0	1	0	0	0	0	0	33	342
7:05 PM	0	16	0	0	0	1	0	0	0	0	3	0	0	0	0	0	20	314
7:10 PM	0	25	0	0	0	1	0	0	0	0	2	0	0	0	0	0	28	320
7:15 PM	0	19	0	0	0	4	0	0	2	0	1	0	0	0	0	0	26	324
7:20 PM	0	25	0	0	0	5	0	0	1	0	0	0	0	0	0	0	31	333
7:25 PM	0	14	0	0	0	6	0	0	0	0	4	0	0	0	0	0	24	316
7:30 PM	0	14	0	0	0	4	0	0	0	0	2	0	0	0	0	0	20	317
7:35 PM	0	16	0	0	0	2	0	0	0	0	1	0	0	0	0	0	19	313
7:40 PM	0	16	0	0	0	3	0	0	0	0	2	0	0	0	0	0	21	310
7:45 PM	0	22	0	0	0	0	0	0	0	0	1	0	0	0	0	0	23	308
7:50 PM	0	15	0	0	0	1	0	0	1	0	2	0	0	0	0	0	19	303
7:55 PM	0	14	0	0	0	10	0	0	0	0	1	0	0	0	0	0	25	289

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	396	0	0	0	40	0	0	12	0	20	0	0	0	0	0	468
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				4				8			12
Bicycles	0	0	0		0	12	12		8	0	0		0	0	0		32
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

LU 23-111784 CU AD Exhibit A-10

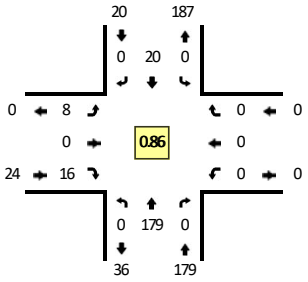
Type of peak hour being reported: Intersection Peak

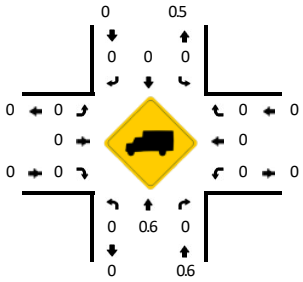
Method for determining peak hour: Total Entering Volume

LOCATION: SE Water St -- Morrison Ramp
CITY/STATE: Portland, OR

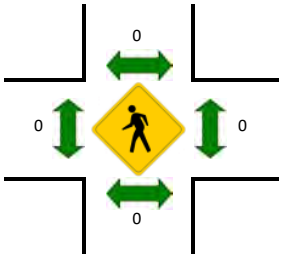
QC JOB #: 16263740
DATE: Sat, Jul 15 2023

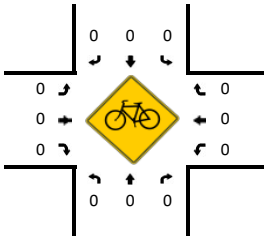
Peak-Hour: 10:00 PM -- 11:00 PM
Peak 15-Min: 10:05 PM -- 10:20 PM

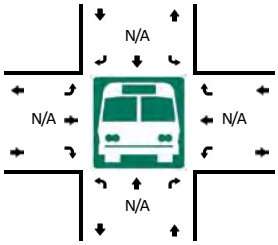


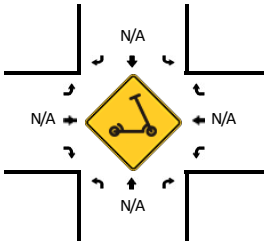


Quality Counts
DATA THAT DRIVES COMMUNITIES









5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				Morrison Ramp (Eastbound)				Morrison Ramp (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	16	0	0	0	1	0	0	0	0	1	0	0	0	0	0	18	
10:05 PM	0	20	0	0	0	1	0	0	0	0	2	0	0	0	0	0	23	
10:10 PM	0	17	0	0	0	1	0	0	1	0	1	0	0	0	0	0	20	
10:15 PM	0	17	0	0	0	5	0	0	0	0	0	0	0	0	0	0	22	
10:20 PM	0	15	0	0	0	1	0	0	0	0	0	0	0	0	0	0	16	
10:25 PM	0	17	0	0	0	1	0	0	2	0	3	0	0	0	0	0	23	
10:30 PM	0	12	0	0	0	1	0	0	0	0	2	0	0	0	0	0	15	
10:35 PM	0	13	0	0	0	2	0	0	0	0	1	0	0	0	0	0	16	
10:40 PM	0	12	0	0	0	5	0	0	1	0	2	0	0	0	0	0	20	
10:45 PM	0	17	0	0	0	1	0	0	2	0	1	0	0	0	0	0	21	
10:50 PM	0	13	0	0	0	0	0	0	2	0	1	0	0	0	0	0	16	
10:55 PM	0	10	0	0	0	1	0	0	0	0	2	0	0	0	0	0	13	223
11:00 PM	0	11	0	0	0	1	0	0	0	0	0	0	0	0	0	0	12	217
11:05 PM	0	15	0	0	0	4	0	0	0	0	2	0	0	0	0	0	21	215
11:10 PM	0	9	0	0	0	6	0	0	0	0	1	0	0	0	0	0	16	211
11:15 PM	0	12	0	0	0	1	0	0	0	0	1	0	0	0	0	0	14	203
11:20 PM	0	8	0	0	0	3	0	0	1	0	1	0	0	0	0	0	13	200
11:25 PM	0	6	0	0	0	2	0	0	1	0	0	0	0	0	0	0	9	186
11:30 PM	0	6	0	0	0	2	0	0	1	0	0	0	0	0	0	0	9	180
11:35 PM	0	7	0	0	0	1	0	0	0	0	0	0	0	0	0	0	8	172
11:40 PM	0	8	0	0	0	2	0	0	0	0	2	0	0	0	0	0	12	164
11:45 PM	0	10	0	0	0	1	0	0	1	0	0	0	0	0	0	0	12	155
11:50 PM	0	2	0	0	0	2	0	0	1	0	0	0	0	0	0	0	5	144
11:55 PM	0	2	0	0	0	1	0	0	1	0	1	0	0	0	0	0	5	136

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	216	0	0	0	28	0	0	4	0	12	0	0	0	0	0	260
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

LU 23-111784 CU AD Exhibit A-10

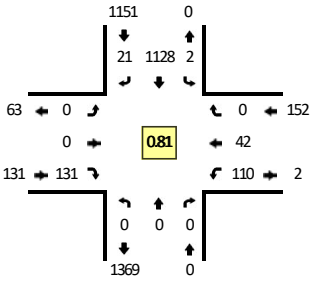
Type of peak hour being reported: Intersection Peak

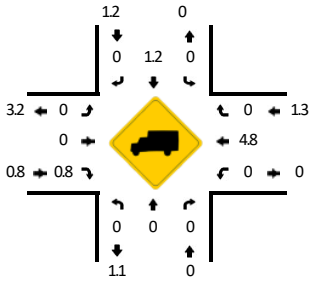
Method for determining peak hour: Total Entering Volume

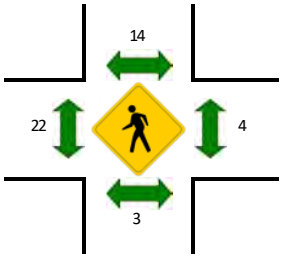
LOCATION: SE MLK Jr Blvd -- SE Stark St
CITY/STATE: Portland, OR

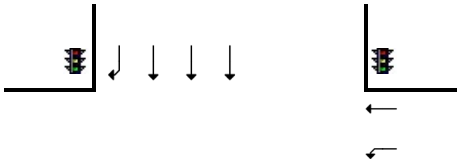
QC JOB #: 16263741
DATE: Thu, Jul 13 2023

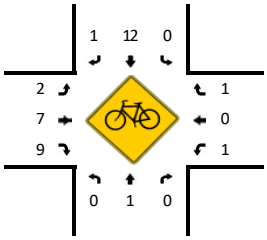
Peak-Hour: 6:00 PM -- 7:00 PM
Peak 15-Min: 6:00 PM -- 6:15 PM

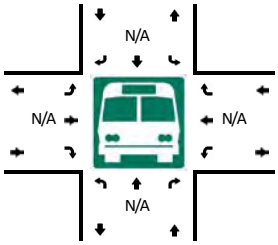


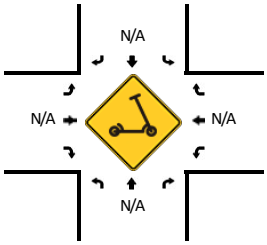












5-Min Count Period Beginning At	SE MLK Jr Blvd (Northbound)				SE MLK Jr Blvd (Southbound)				SE Stark St (Eastbound)				SE Stark St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	0	0	0	0	124	0	0	0	0	11	0	10	3	0	0	148	
6:05 PM	0	0	0	0	0	116	4	0	0	0	7	0	11	6	0	0	144	
6:10 PM	0	0	0	0	0	115	3	0	0	0	15	0	14	2	0	0	149	
6:15 PM	0	0	0	0	1	109	5	0	0	0	13	0	8	5	0	0	141	
6:20 PM	0	0	0	0	0	117	1	0	0	0	8	0	6	1	0	0	133	
6:25 PM	0	0	0	0	0	80	0	0	0	0	11	0	10	4	0	0	105	
6:30 PM	0	0	0	0	0	100	1	0	0	0	8	0	5	2	0	0	116	
6:35 PM	0	0	0	0	0	85	0	0	0	0	10	0	16	7	0	0	118	
6:40 PM	0	0	0	0	1	78	0	0	0	0	7	0	6	3	0	0	95	
6:45 PM	0	0	0	0	0	75	3	0	0	0	12	0	9	4	0	0	103	
6:50 PM	0	0	0	0	0	65	1	0	0	0	15	0	7	2	0	0	90	
6:55 PM	0	0	0	0	0	64	3	0	0	0	14	0	8	3	0	0	92	1434
7:00 PM	0	0	0	0	0	73	2	0	0	0	11	0	9	1	0	0	96	1382
7:05 PM	0	0	0	0	0	65	1	0	0	0	11	0	8	1	0	0	86	1324
7:10 PM	0	0	0	0	0	59	1	0	0	0	15	0	5	1	0	0	81	1256
7:15 PM	0	0	0	0	0	71	0	0	0	0	14	0	6	2	0	0	93	1208
7:20 PM	0	0	0	0	0	77	1	0	0	0	10	0	4	3	0	0	95	1170
7:25 PM	0	0	0	0	0	61	0	0	0	0	4	0	3	2	0	0	70	1135
7:30 PM	0	0	0	0	0	80	1	0	0	0	6	0	6	2	0	0	95	1114
7:35 PM	0	0	0	0	0	60	0	0	0	0	8	0	10	1	0	0	79	1075
7:40 PM	0	0	0	0	0	56	1	0	0	0	11	0	10	0	0	0	78	1058
7:45 PM	0	0	0	0	0	59	1	0	0	0	11	0	9	2	0	0	82	1037
7:50 PM	0	0	0	0	0	56	1	0	0	0	13	0	5	0	0	0	75	1022
7:55 PM	0	0	0	0	0	56	0	0	0	0	6	0	5	1	0	0	68	998

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	1420	28	0	0	0	132	0	140	44	0	0	1764
Heavy Trucks	0	0	0		0	20	0		0	0	0		0	4	0		24
Buses																	
Pedestrians		0				20				32				0			52
Bicycles	0	0	0		0	8	0		4	4	0		0	0	0		16
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

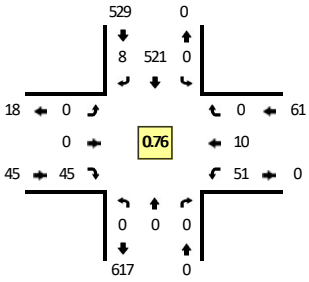
Type of peak hour being reported: Intersection Peak

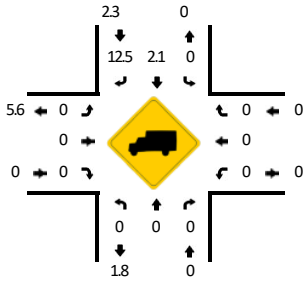
Method for determining peak hour: Total Entering Volume

LOCATION: SE MLK Jr Blvd -- SE Stark St
CITY/STATE: Portland, OR

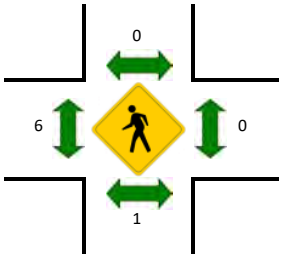
QC JOB #: 16263742
DATE: Thu, Jul 13 2023

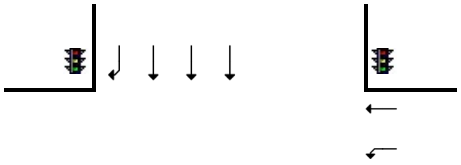
Peak-Hour: 10:00 PM -- 11:00 PM
Peak 15-Min: 10:00 PM -- 10:15 PM

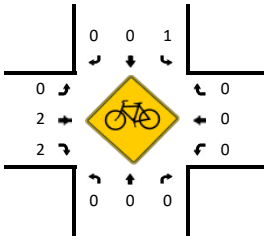


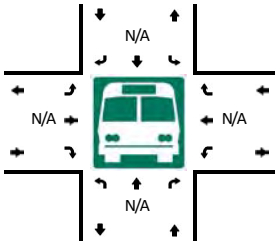


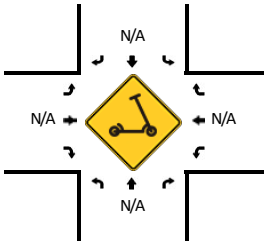
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	SE MLK Jr Blvd (Northbound)				SE MLK Jr Blvd (Southbound)				SE Stark St (Eastbound)				SE Stark St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	0	0	0	0	58	1	0	0	0	8	0	4	1	0	0	72	
10:05 PM	0	0	0	0	0	53	1	0	0	0	3	0	8	0	0	0	65	
10:10 PM	0	0	0	0	0	61	1	0	0	0	6	0	4	1	0	0	73	
10:15 PM	0	0	0	0	0	46	2	0	0	0	5	0	3	3	0	0	59	
10:20 PM	0	0	0	0	0	41	0	0	0	0	1	0	2	1	0	0	45	
10:25 PM	0	0	0	0	0	43	1	0	0	0	2	0	5	0	0	0	51	
10:30 PM	0	0	0	0	0	50	0	0	0	0	3	0	5	0	0	0	58	
10:35 PM	0	0	0	0	0	44	0	0	0	0	2	0	11	1	0	0	58	
10:40 PM	0	0	0	0	0	39	0	0	0	0	1	0	5	0	0	0	45	
10:45 PM	0	0	0	0	0	34	0	0	0	0	5	0	0	1	0	0	40	
10:50 PM	0	0	0	0	0	27	2	0	0	0	2	0	2	1	0	0	34	
10:55 PM	0	0	0	0	0	25	0	0	0	0	7	0	2	1	0	0	35	635
11:00 PM	0	0	0	0	0	42	0	0	0	0	2	0	5	0	0	0	49	612
11:05 PM	0	0	0	0	0	32	0	0	0	0	0	0	2	1	0	0	35	582
11:10 PM	0	0	0	0	0	26	0	0	0	0	2	0	3	0	0	0	31	540
11:15 PM	0	0	0	0	0	33	1	0	0	0	2	0	5	1	0	0	42	523
11:20 PM	0	0	0	0	0	40	0	0	0	0	1	0	7	1	0	0	49	527
11:25 PM	0	0	0	0	0	16	0	0	0	0	1	0	2	0	0	0	19	495
11:30 PM	0	0	0	0	0	32	1	0	0	0	0	0	2	0	0	0	35	472
11:35 PM	0	0	0	0	0	22	0	0	0	0	2	0	2	1	0	0	27	441
11:40 PM	0	0	0	0	0	30	1	0	0	0	1	0	1	0	0	0	33	429
11:45 PM	0	0	0	0	0	34	0	0	0	0	2	0	2	0	0	0	38	427
11:50 PM	0	0	0	0	0	16	0	0	0	0	1	0	4	0	0	0	21	414
11:55 PM	0	0	0	0	0	15	0	0	0	0	2	0	3	0	0	0	20	399

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	688	12	0	0	0	68	0	64	8	0	0	840
Heavy Trucks	0	0	0		0	16	4		0	0	0		0	0	0		20
Buses																	
Pedestrians		0				0				8				0			8
Bicycles	0	0	0		0	0	0		0	0	8		0	0	0		8
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

LU 23-111784 CU AD Exhibit A-10

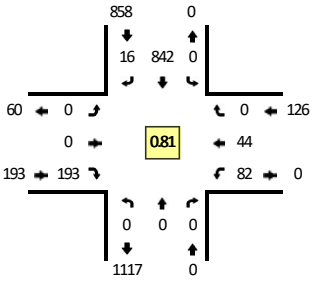
Type of peak hour being reported: Intersection Peak

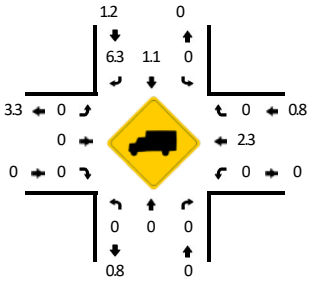
Method for determining peak hour: Total Entering Volume

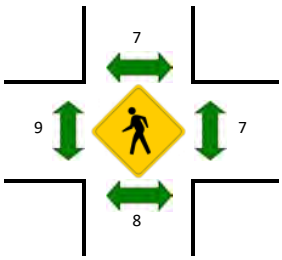
LOCATION: SE MLK Jr Blvd -- SE Stark St
CITY/STATE: Portland, OR

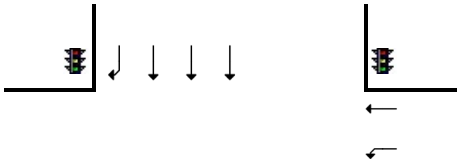
QC JOB #: 16263743
DATE: Sat, Jul 15 2023

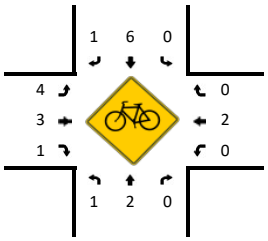
Peak-Hour: 6:05 PM -- 7:05 PM
Peak 15-Min: 6:05 PM -- 6:20 PM

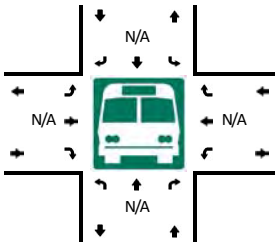


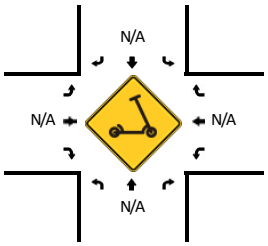












5-Min Count Period Beginning At	SE MLK Jr Blvd (Northbound)				SE MLK Jr Blvd (Southbound)				SE Stark St (Eastbound)				SE Stark St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	0	0	0	0	56	0	0	0	0	35	0	4	4	0	0	99	
6:05 PM	0	0	0	0	0	87	3	0	0	0	41	0	5	6	0	0	142	
6:10 PM	0	0	0	0	0	74	1	0	0	0	25	0	5	2	0	0	107	
6:15 PM	0	0	0	0	0	82	1	0	0	0	15	0	11	7	0	0	116	
6:20 PM	0	0	0	0	0	73	2	0	0	0	14	0	7	4	0	0	100	
6:25 PM	0	0	0	0	0	69	1	0	0	0	18	0	6	6	0	0	100	
6:30 PM	0	0	0	0	0	49	2	0	0	0	5	0	3	3	0	0	62	
6:35 PM	0	0	0	0	0	62	0	0	0	0	12	0	6	1	0	0	81	
6:40 PM	0	0	0	0	0	71	1	0	0	0	7	0	8	4	0	0	91	
6:45 PM	0	0	0	0	0	63	3	0	0	0	1	0	6	3	0	0	76	
6:50 PM	0	0	0	0	0	65	2	0	0	0	4	0	4	4	0	0	79	
6:55 PM	0	0	0	0	0	64	0	0	0	0	23	0	9	1	0	0	97	1150
7:00 PM	0	0	0	0	0	83	0	0	0	0	28	0	12	3	0	0	126	1177
7:05 PM	0	0	0	0	0	50	1	0	0	0	14	0	5	3	0	0	73	1108
7:10 PM	0	0	0	0	0	71	2	0	0	0	16	0	9	5	0	0	103	1104
7:15 PM	0	0	0	0	0	61	0	0	0	0	12	0	7	1	0	0	81	1069
7:20 PM	0	0	0	0	0	64	1	0	0	0	16	0	5	4	0	0	90	1059
7:25 PM	0	0	0	0	0	67	1	0	0	0	16	0	3	3	0	0	90	1049
7:30 PM	0	0	0	0	0	63	1	0	0	0	6	0	13	3	0	0	86	1073
7:35 PM	0	0	0	0	0	69	1	0	0	0	10	0	12	2	0	0	94	1086
7:40 PM	0	0	0	0	0	75	1	0	0	0	9	0	4	3	0	0	92	1087
7:45 PM	0	0	0	0	0	57	0	0	0	0	16	0	6	4	0	0	83	1094
7:50 PM	0	0	0	0	0	62	0	0	0	0	4	0	12	1	0	0	79	1094
7:55 PM	0	0	0	0	1	51	0	0	0	0	1	0	7	2	0	0	62	1059

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	972	20	0	0	0	324	0	84	60	0	0	1460
Heavy Trucks	0	0	0		0	12	0		0	0	0		0	0	0		12
Buses																	
Pedestrians		20				8				20				4			52
Bicycles	0	4	0		0	4	0		0	4	4		0	0	0		16
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

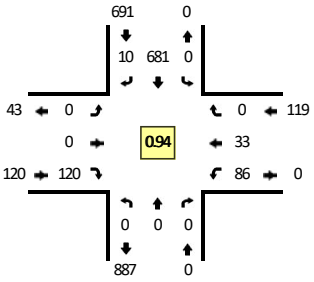
Type of peak hour being reported: Intersection Peak

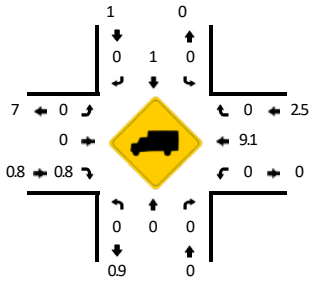
Method for determining peak hour: Total Entering Volume

LOCATION: SE MLK Jr Blvd -- SE Stark St
CITY/STATE: Portland, OR

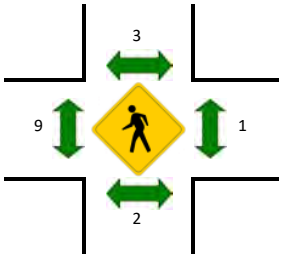
QC JOB #: 16263744
DATE: Sat, Jul 15 2023

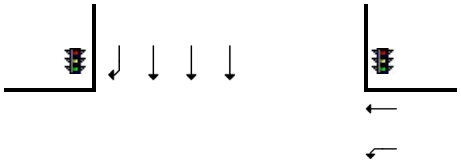
Peak-Hour: 10:05 PM -- 11:05 PM
Peak 15-Min: 10:30 PM -- 10:45 PM

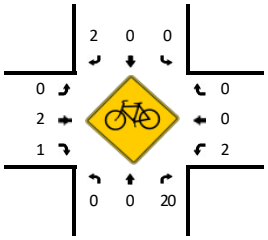


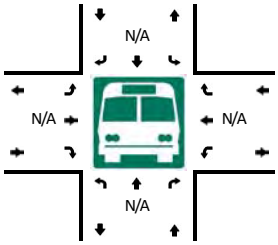


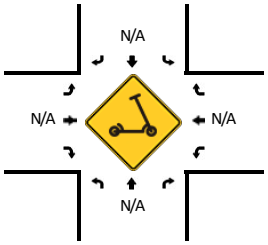
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	SE MLK Jr Blvd (Northbound)				SE MLK Jr Blvd (Southbound)				SE Stark St (Eastbound)				SE Stark St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	0	0	0	0	48	0	0	0	0	5	0	3	1	0	0	57	
10:05 PM	0	0	0	0	0	65	0	0	0	0	16	0	5	2	0	0	88	
10:10 PM	0	0	0	0	0	64	0	0	0	0	11	0	4	2	0	0	81	
10:15 PM	0	0	0	0	0	55	0	0	0	0	10	0	7	2	0	0	74	
10:20 PM	0	0	0	0	0	71	0	0	0	0	7	0	9	2	0	0	89	
10:25 PM	0	0	0	0	0	59	1	0	0	0	13	0	5	2	0	0	80	
10:30 PM	0	0	0	0	0	60	1	0	0	0	7	0	4	5	0	0	77	
10:35 PM	0	0	0	0	0	61	3	0	0	0	10	0	11	2	0	0	87	
10:40 PM	0	0	0	0	0	61	2	0	0	0	11	0	7	2	0	0	83	
10:45 PM	0	0	0	0	0	48	1	0	0	0	11	0	8	5	0	0	73	
10:50 PM	0	0	0	0	0	42	0	0	0	0	6	0	10	1	0	0	59	
10:55 PM	0	0	0	0	0	38	1	0	0	0	10	0	9	2	0	0	60	908
11:00 PM	0	0	0	0	0	57	1	0	0	0	8	0	7	6	0	0	79	930
11:05 PM	0	0	0	0	0	50	2	0	0	0	8	0	7	2	0	0	69	911
11:10 PM	0	0	0	0	0	59	1	0	0	0	8	0	5	5	0	0	78	908
11:15 PM	0	0	0	0	0	46	1	0	0	0	6	0	2	5	0	0	60	894
11:20 PM	0	0	0	0	0	63	1	0	0	0	9	0	5	1	0	0	79	884
11:25 PM	0	0	0	0	0	42	0	0	0	0	6	0	10	5	0	0	63	867
11:30 PM	0	0	0	0	0	42	2	0	0	0	6	0	7	3	0	0	60	850
11:35 PM	0	0	0	0	0	41	2	0	0	0	8	0	9	2	0	0	62	825
11:40 PM	0	0	0	0	0	49	0	0	0	0	5	0	6	2	0	0	62	804
11:45 PM	0	0	0	0	0	44	2	0	0	0	8	0	3	3	0	0	60	791
11:50 PM	0	0	0	0	0	50	1	0	0	0	4	0	5	3	0	0	63	795
11:55 PM	0	0	0	0	0	51	1	0	0	0	0	0	3	2	0	0	57	792

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	728	24	0	0	0	112	0	88	36	0	0	988
Heavy Trucks	0	0	0		0	0	0		0	0	4		0	4	0		8
Buses																	
Pedestrians		0				4				12				0			16
Bicycles	0	0	28		0	0	4		0	0	0		0	0	0		32
Scooters																	

Comments:

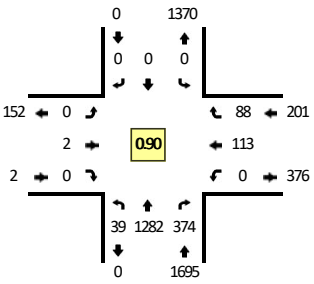
Report generated on 7/26/2023 12:41 PM

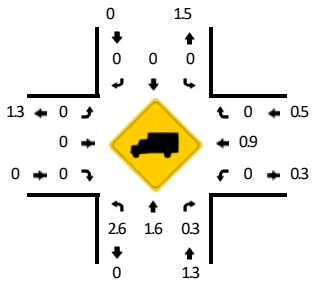
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

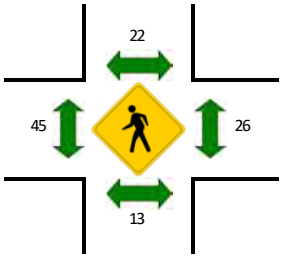
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

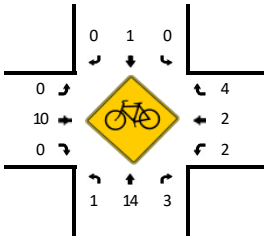
LOCATION: SE Grand Ave -- SE Stark St | **QC JOB #:** 16263745
CITY/STATE: Portland, OR | **DATE:** Thu, Jul 13 2023

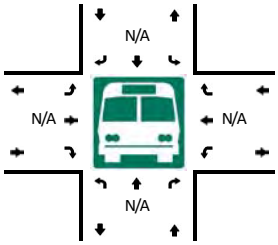
Peak-Hour: 6:00 PM -- 7:00 PM
Peak 15-Min: 6:25 PM -- 6:40 PM

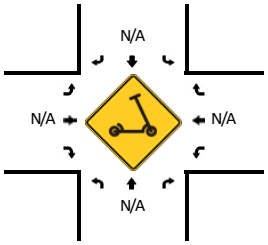












5-Min Count Period Beginning At	SE Grand Ave (Northbound)				SE Grand Ave (Southbound)				SE Stark St (Eastbound)				SE Stark St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	1	102	46	0	0	0	0	0	0	0	0	0	0	10	6	0	165	
6:05 PM	8	109	43	0	0	0	0	0	0	0	0	0	0	9	5	0	174	
6:10 PM	3	123	32	0	0	0	0	0	0	0	0	0	0	15	7	0	180	
6:15 PM	5	110	33	0	0	0	0	0	0	1	0	0	0	7	10	0	166	
6:20 PM	1	107	30	0	0	0	0	0	0	0	0	0	0	7	9	0	154	
6:25 PM	3	114	44	0	0	0	0	0	0	0	0	0	0	9	5	0	175	
6:30 PM	1	130	36	0	0	0	0	0	0	0	0	0	0	8	5	0	180	
6:35 PM	5	115	28	0	0	0	0	0	0	0	0	0	0	16	10	0	174	
6:40 PM	6	101	21	0	0	0	0	0	0	1	0	0	0	4	7	0	140	
6:45 PM	1	101	24	0	0	0	0	0	0	0	0	0	0	11	12	0	149	
6:50 PM	2	83	17	0	0	0	0	0	0	0	0	0	0	8	9	0	119	
6:55 PM	3	87	20	0	0	0	0	0	0	0	0	0	0	9	3	0	122	1898
7:00 PM	1	97	20	0	0	0	0	0	0	0	0	0	0	10	4	0	132	1865
7:05 PM	2	87	22	0	0	0	0	0	0	0	0	0	0	10	2	0	123	1814
7:10 PM	0	74	26	0	0	0	0	0	0	0	0	0	0	5	5	0	110	1744
7:15 PM	1	82	16	0	0	0	0	0	0	0	0	0	0	7	1	0	107	1685
7:20 PM	4	103	25	0	0	0	0	0	0	0	0	0	0	10	5	0	147	1678
7:25 PM	2	88	18	0	0	0	0	0	0	0	0	0	0	2	4	0	114	1617
7:30 PM	2	71	13	0	0	0	0	0	0	0	0	0	0	6	4	0	96	1533
7:35 PM	4	79	16	0	0	0	0	0	0	0	0	0	0	11	2	0	112	1471
7:40 PM	1	82	20	0	0	0	0	0	0	0	0	0	0	9	5	0	117	1448
7:45 PM	2	77	11	0	0	0	0	0	0	0	0	0	0	8	3	0	101	1400
7:50 PM	2	64	14	0	0	0	0	0	0	0	0	0	0	4	4	0	88	1369
7:55 PM	0	71	10	0	0	0	0	0	0	0	0	0	0	6	5	0	92	1339

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	36	1436	432	0	0	0	0	0	0	0	0	0	0	132	80	0	2116
Heavy Trucks	0	20	0		0	0	0		0	0	0		0	4	0		24
Buses																	
Pedestrians		20				40				60				24			144
Bicycles	0	8	4		0	0	0		0	20	0		4	4	4		44
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

LU 23-111784 CU AD Exhibit A-10

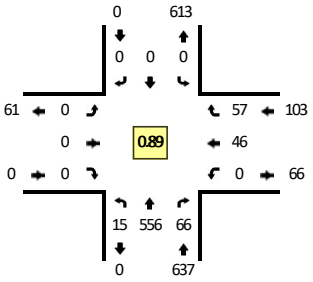
Type of peak hour being reported: Intersection Peak

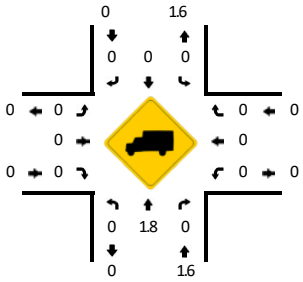
Method for determining peak hour: Total Entering Volume

LOCATION: SE Grand Ave -- SE Stark St
CITY/STATE: Portland, OR

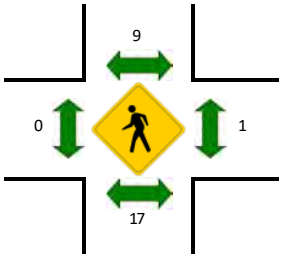
QC JOB #: 16263746
DATE: Thu, Jul 13 2023

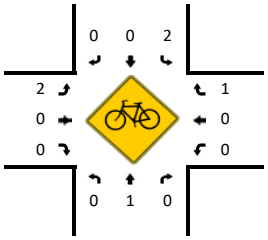
Peak-Hour: 10:00 PM -- 11:00 PM
Peak 15-Min: 10:00 PM -- 10:15 PM

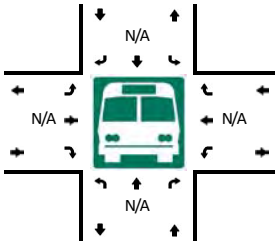


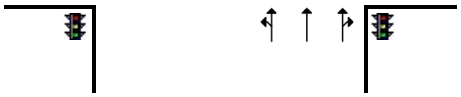


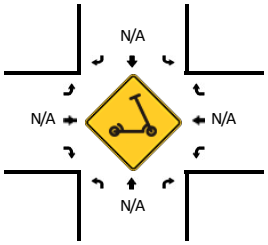
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	SE Grand Ave (Northbound)				SE Grand Ave (Southbound)				SE Stark St (Eastbound)				SE Stark St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	1	67	3	0	0	0	0	0	0	0	0	0	0	5	5	0	81	
10:05 PM	2	52	5	0	0	0	0	0	0	0	0	0	0	4	6	0	69	
10:10 PM	3	47	7	0	0	0	0	0	0	0	0	0	0	1	1	0	59	
10:15 PM	2	55	11	0	0	0	0	0	0	0	0	0	0	4	5	0	77	
10:20 PM	0	30	2	0	0	0	0	0	0	0	0	0	0	1	7	0	40	
10:25 PM	0	52	6	0	0	0	0	0	0	0	0	0	0	6	4	0	68	
10:30 PM	4	49	3	0	0	0	0	0	0	0	0	0	0	2	6	0	64	
10:35 PM	1	48	8	0	0	0	0	0	0	0	0	0	0	12	6	0	75	
10:40 PM	0	39	3	0	0	0	0	0	0	0	0	0	0	5	8	0	55	
10:45 PM	1	46	3	0	0	0	0	0	0	0	0	0	0	0	1	0	51	
10:50 PM	0	40	7	0	0	0	0	0	0	0	0	0	0	3	4	0	54	
10:55 PM	1	31	8	0	0	0	0	0	0	0	0	0	0	3	4	0	47	740
11:00 PM	1	36	2	0	0	0	0	0	0	0	0	0	0	3	1	0	43	702
11:05 PM	0	33	2	0	0	0	0	0	0	0	0	0	0	4	5	0	44	677
11:10 PM	0	33	3	0	0	0	0	0	0	0	0	0	0	3	3	0	42	660
11:15 PM	2	32	4	0	0	0	0	0	0	0	0	0	0	3	6	0	47	630
11:20 PM	0	27	3	0	0	0	0	0	0	0	0	0	0	8	0	0	38	628
11:25 PM	1	34	1	0	0	0	0	0	0	0	0	0	0	1	1	0	38	598
11:30 PM	1	18	3	0	0	0	0	0	0	0	0	0	0	1	1	0	24	558
11:35 PM	1	27	1	0	0	0	0	0	0	0	0	0	0	2	1	0	32	515
11:40 PM	0	22	5	0	0	0	0	0	0	0	0	0	0	1	2	0	30	490
11:45 PM	2	24	3	0	0	0	0	0	0	0	0	0	0	1	1	0	31	470
11:50 PM	0	28	4	0	0	0	0	0	0	0	0	0	0	3	3	0	38	454
11:55 PM	0	31	1	0	0	0	0	0	0	0	0	0	0	4	0	0	36	443

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	24	664	60	0	0	0	0	0	0	0	0	0	0	40	48	0	836
Heavy Trucks	0	12	0		0	0	0		0	0	0		0	0	0		12
Buses																	
Pedestrians		0				16				0				0			16
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

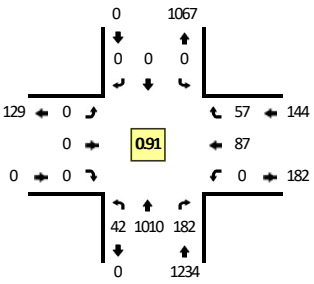
Type of peak hour being reported: Intersection Peak

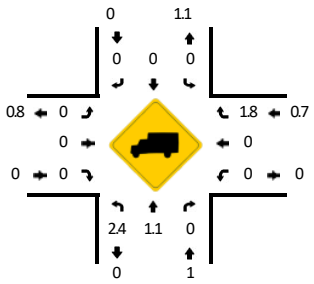
Method for determining peak hour: Total Entering Volume

LOCATION: SE Grand Ave -- SE Stark St
CITY/STATE: Portland, OR

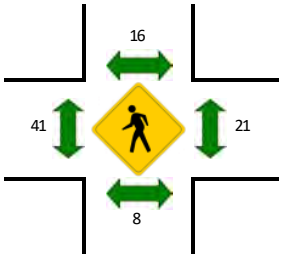
QC JOB #: 16263747
DATE: Sat, Jul 15 2023

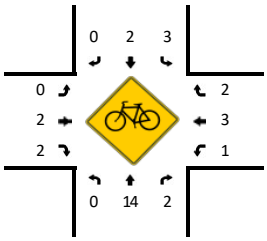
Peak-Hour: 6:05 PM -- 7:05 PM
Peak 15-Min: 6:10 PM -- 6:25 PM

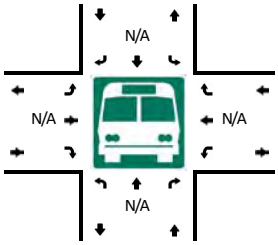


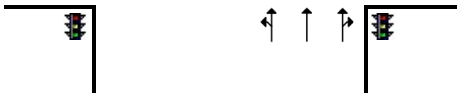


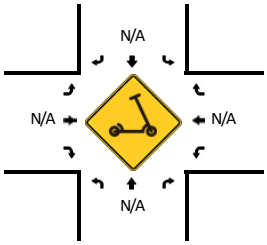
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	SE Grand Ave (Northbound)				SE Grand Ave (Southbound)				SE Stark St (Eastbound)				SE Stark St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	4	71	11	0	0	0	0	0	0	0	0	0	0	5	3	0	94	
6:05 PM	4	89	15	0	0	0	0	0	0	0	0	0	0	6	5	0	119	
6:10 PM	4	96	21	0	0	0	0	0	0	0	0	0	0	3	9	0	133	
6:15 PM	3	81	15	0	0	0	0	0	0	0	0	0	0	15	7	0	121	
6:20 PM	5	95	12	0	0	0	0	0	0	0	0	0	0	6	5	0	123	
6:25 PM	4	95	13	0	0	0	0	0	0	0	0	0	0	8	2	0	122	
6:30 PM	4	80	15	0	0	0	0	0	0	0	0	0	0	3	5	0	107	
6:35 PM	1	56	12	0	0	0	0	0	0	0	0	0	0	5	2	0	76	
6:40 PM	4	80	12	0	0	0	0	0	0	0	0	0	0	9	3	0	108	
6:45 PM	2	99	8	0	0	0	0	0	0	0	0	0	0	6	6	0	121	
6:50 PM	3	72	14	0	0	0	0	0	0	0	0	0	0	6	6	0	101	
6:55 PM	5	74	16	0	0	0	0	0	0	0	0	0	0	6	3	0	104	1329
7:00 PM	3	93	29	0	0	0	0	0	0	0	0	0	0	14	4	0	143	1378
7:05 PM	4	83	17	0	0	0	0	0	0	0	0	0	0	4	2	0	110	1369
7:10 PM	7	82	23	0	0	0	0	0	0	0	0	0	0	9	6	0	127	1363
7:15 PM	2	59	13	0	0	0	0	0	0	0	0	0	0	6	2	0	82	1324
7:20 PM	2	73	15	0	0	0	0	0	0	0	0	0	0	8	2	0	100	1301
7:25 PM	2	68	14	0	0	0	0	0	0	0	0	0	0	6	4	0	94	1273
7:30 PM	4	69	18	0	0	0	0	0	0	0	0	0	0	11	4	0	106	1272
7:35 PM	6	68	9	0	0	0	0	0	0	0	0	0	0	8	6	0	97	1293
7:40 PM	3	70	14	0	0	0	0	0	0	0	0	0	0	3	5	0	95	1280
7:45 PM	5	65	11	0	0	0	0	0	0	0	0	0	0	6	3	0	90	1249
7:50 PM	2	50	10	0	0	0	0	0	0	0	0	0	0	11	4	0	77	1225
7:55 PM	4	79	15	0	0	0	0	0	1	0	0	0	0	6	5	0	110	1231

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	48	1088	192	0	0	0	0	0	0	0	0	0	0	96	84	0	1508
Heavy Trucks	4	12	0		0	0	0		0	0	0		0	0	4		20
Buses																	
Pedestrians		0				12				48				20			80
Bicycles	0	16	0		4	0	0		0	0	0		4	0	0		24
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

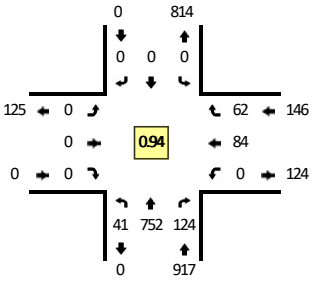
Type of peak hour being reported: Intersection Peak

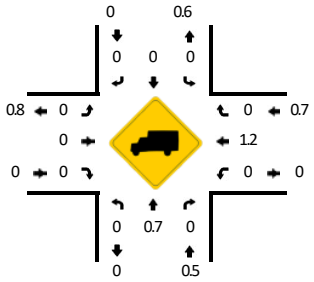
Method for determining peak hour: Total Entering Volume

LOCATION: SE Grand Ave -- SE Stark St
CITY/STATE: Portland, OR

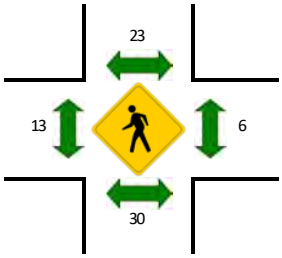
QC JOB #: 16263748
DATE: Sat, Jul 15 2023

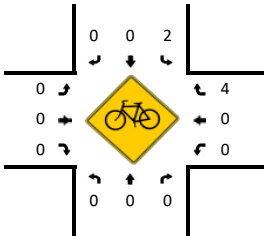
Peak-Hour: 10:10 PM -- 11:10 PM
Peak 15-Min: 10:10 PM -- 10:25 PM

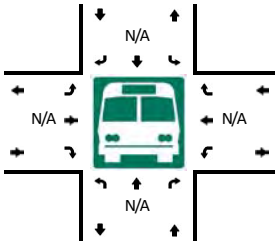


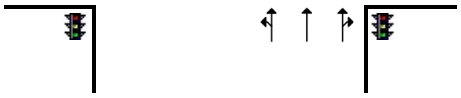


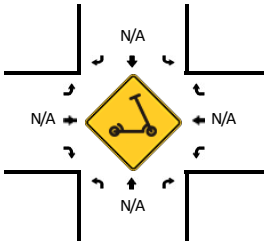
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	SE Grand Ave (Northbound)				SE Grand Ave (Southbound)				SE Stark St (Eastbound)				SE Stark St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	1	69	11	0	0	0	0	0	0	0	0	0	0	3	3	0	87	
10:05 PM	3	46	12	0	0	0	0	0	0	0	0	0	0	5	4	0	70	
10:10 PM	1	72	14	0	0	0	0	0	0	0	0	0	0	5	2	0	94	
10:15 PM	6	75	11	0	0	0	0	0	0	0	0	0	0	5	6	0	103	
10:20 PM	1	59	12	0	0	0	0	0	0	0	0	0	0	9	4	0	85	
10:25 PM	3	61	11	0	0	0	0	0	0	0	0	0	0	6	4	0	85	
10:30 PM	6	69	9	0	0	0	0	0	0	0	0	0	0	3	5	0	92	
10:35 PM	3	68	16	0	0	0	0	0	0	0	0	0	0	9	1	0	97	
10:40 PM	3	58	9	0	0	0	0	0	0	0	0	0	0	6	5	0	81	
10:45 PM	5	54	9	0	0	0	0	0	0	0	0	0	0	8	4	0	80	
10:50 PM	3	66	10	0	0	0	0	0	0	0	0	0	0	10	8	0	97	
10:55 PM	4	51	8	0	0	0	0	0	0	0	0	0	0	8	11	0	82	1053
11:00 PM	2	56	6	0	0	0	0	0	0	0	0	0	0	13	6	0	83	1049
11:05 PM	4	63	9	0	0	0	0	0	0	0	0	0	0	2	6	0	84	1063
11:10 PM	2	56	10	0	0	0	0	0	0	0	0	0	0	8	8	0	84	1053
11:15 PM	2	41	7	0	0	0	0	0	0	0	0	0	0	5	4	0	59	1009
11:20 PM	1	54	5	0	0	0	0	0	0	0	0	0	0	6	5	0	71	995
11:25 PM	4	58	11	0	0	0	0	0	0	0	0	0	0	11	5	0	89	999
11:30 PM	4	52	5	0	0	0	0	0	0	0	0	0	0	6	3	0	70	977
11:35 PM	2	50	7	0	0	0	0	0	0	0	0	0	0	9	2	0	70	950
11:40 PM	3	48	7	0	0	0	0	0	0	0	0	0	0	8	2	0	68	937
11:45 PM	2	34	6	0	0	0	0	0	0	0	0	0	0	1	5	0	48	905
11:50 PM	2	36	7	0	0	0	0	0	0	0	0	0	0	7	6	0	58	866
11:55 PM	2	54	3	0	0	0	0	0	0	0	0	0	0	1	4	0	64	848

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	32	824	148	0	0	0	0	0	0	0	0	0	0	76	48	0	1128
Heavy Trucks	0	8	0		0	0	0		0	0	0		0	0	0		8
Buses																	
Pedestrians		24				40				4				0			68
Bicycles	0	0	0		0	0	0		0	0	0		0	0	4		4
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

LU 23-111784 CU AD Exhibit A-10

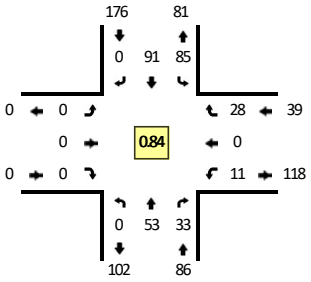
Type of peak hour being reported: Intersection Peak

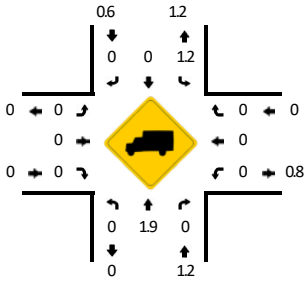
Method for determining peak hour: Total Entering Volume

LOCATION: SE Water St -- SE Clay St
CITY/STATE: Portland, OR

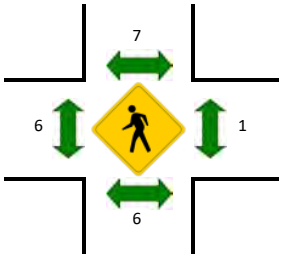
QC JOB #: 16263749
DATE: Thu, Jul 13 2023

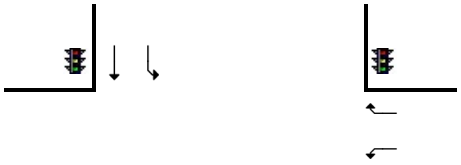
Peak-Hour: 6:00 PM -- 7:00 PM
Peak 15-Min: 6:05 PM -- 6:20 PM

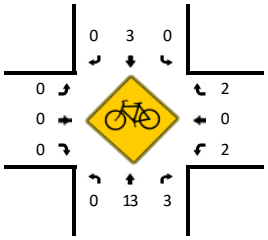


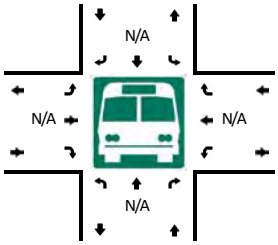


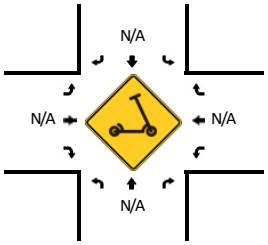
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Clay St (Eastbound)				SE Clay St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	6	3	0	7	8	0	0	0	0	0	0	1	0	3	0	28	
6:05 PM	0	3	4	0	7	9	0	0	0	0	0	0	2	0	4	0	29	
6:10 PM	0	5	1	0	6	14	0	0	0	0	0	0	0	0	0	0	26	
6:15 PM	0	7	1	0	9	13	0	0	0	0	0	0	1	0	4	0	35	
6:20 PM	0	6	2	0	6	8	0	0	0	0	0	0	2	0	2	0	26	
6:25 PM	0	5	1	0	7	6	0	0	0	0	0	0	0	0	2	0	21	
6:30 PM	0	1	1	0	8	5	0	0	0	0	0	0	1	0	3	0	19	
6:35 PM	0	7	2	0	10	9	0	0	0	0	0	0	0	0	0	0	28	
6:40 PM	0	2	5	0	6	10	0	0	0	0	0	0	0	0	3	0	26	
6:45 PM	0	2	4	0	10	5	0	0	0	0	0	0	1	0	2	0	24	
6:50 PM	0	3	5	0	6	2	0	0	0	0	0	0	1	0	2	0	19	
6:55 PM	0	6	4	0	3	2	0	0	0	0	0	0	2	0	3	0	20	301
7:00 PM	0	2	1	0	6	4	0	0	0	0	0	0	0	0	0	0	13	286
7:05 PM	0	5	2	0	4	4	0	0	0	0	0	0	1	0	0	0	16	273
7:10 PM	0	2	3	0	3	0	0	0	0	0	0	0	2	0	1	0	11	258
7:15 PM	0	1	3	0	3	2	0	0	0	0	0	0	1	0	0	0	10	233
7:20 PM	0	3	1	0	2	2	0	0	0	0	0	0	0	0	1	0	9	216
7:25 PM	0	0	2	0	5	4	0	0	0	0	0	0	2	0	1	0	14	209
7:30 PM	0	1	0	0	7	4	0	0	0	0	0	0	1	0	1	0	14	204
7:35 PM	0	2	1	0	3	3	0	0	0	0	0	0	0	0	0	0	9	185
7:40 PM	0	1	2	0	2	4	0	0	0	0	0	0	0	0	1	0	10	169
7:45 PM	0	2	1	0	6	1	0	0	0	0	0	0	0	0	1	0	11	156
7:50 PM	0	0	1	0	0	2	0	0	0	0	0	0	0	0	1	0	4	141
7:55 PM	0	0	0	0	5	2	0	0	0	0	0	0	0	0	0	0	7	128

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	60	24	0	88	144	0	0	0	0	0	0	12	0	32	0	360
Heavy Trucks	0	0	0		4	0	0		0	0	0		0	0	0		4
Buses																	
Pedestrians		8				4				4				4			20
Bicycles	0	16	4		0	0	0		0	0	0		0	0	4		24
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

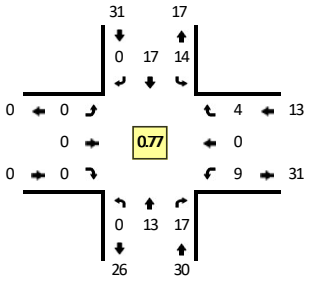
Type of peak hour being reported: Intersection Peak

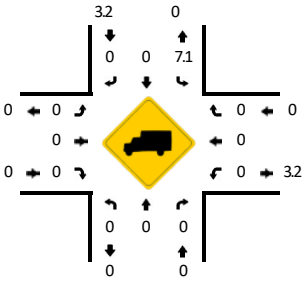
Method for determining peak hour: Total Entering Volume

LOCATION: SE Water St -- SE Clay St
CITY/STATE: Portland, OR

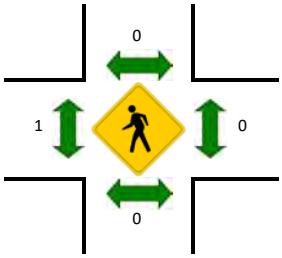
QC JOB #: 16263750
DATE: Thu, Jul 13 2023

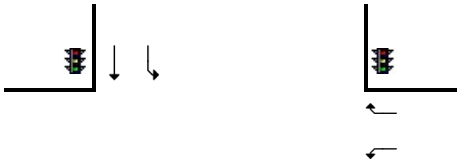
Peak-Hour: 10:00 PM -- 11:00 PM
Peak 15-Min: 10:25 PM -- 10:40 PM

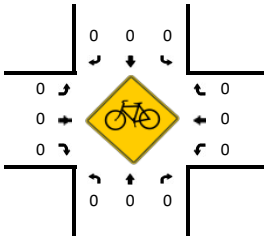


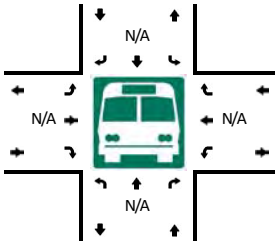


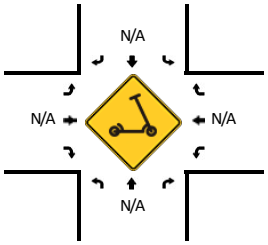
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Clay St (Eastbound)				SE Clay St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	3	3	0	1	2	0	0	0	0	0	0	0	0	1	0	10	
10:05 PM	0	1	0	0	2	3	0	0	0	0	0	0	1	0	0	0	7	
10:10 PM	0	0	0	0	3	2	0	0	0	0	0	0	0	0	1	0	6	
10:15 PM	0	2	2	0	2	0	0	0	0	0	0	0	2	0	0	0	8	
10:20 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	
10:25 PM	0	2	3	0	1	2	0	0	0	0	0	0	3	0	0	0	11	
10:30 PM	0	1	2	0	0	1	0	0	0	0	0	0	1	0	1	0	6	
10:35 PM	0	0	3	0	1	3	0	0	0	0	0	0	0	0	0	0	7	
10:40 PM	0	1	2	0	0	1	0	0	0	0	0	0	1	0	1	0	6	
10:45 PM	0	3	2	0	0	2	0	0	0	0	0	0	1	0	0	0	8	
10:50 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	
10:55 PM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	74
11:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	65
11:05 PM	0	2	0	0	1	0	0	0	0	0	0	0	0	0	2	0	5	63
11:10 PM	0	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0	4	61
11:15 PM	0	3	2	0	1	0	0	0	0	0	0	0	0	0	1	0	7	60
11:20 PM	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	3	61
11:25 PM	0	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0	4	54
11:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	49
11:35 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	43
11:40 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	39
11:45 PM	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	3	34
11:50 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	34
11:55 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	34

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	12	32	0	8	24	0	0	0	0	0	0	16	0	4	0	96
Heavy Trucks	0	0	0		4	0	0		0	0	0		0	0	0		4
Buses																	
Pedestrians		0				0				4				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

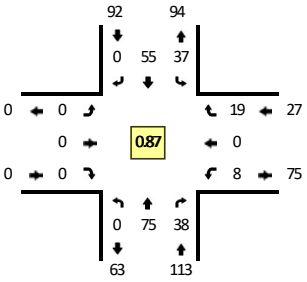
Type of peak hour being reported: Intersection Peak

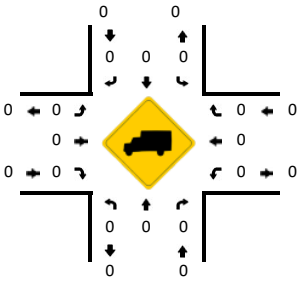
Method for determining peak hour: Total Entering Volume

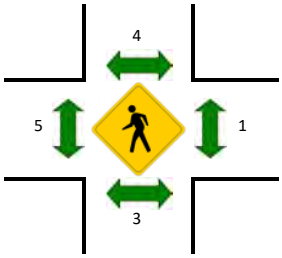
LOCATION: SE Water St -- SE Clay St
CITY/STATE: Portland, OR

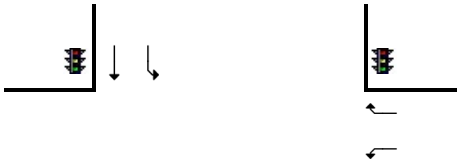
QC JOB #: 16263751
DATE: Sat, Jul 15 2023

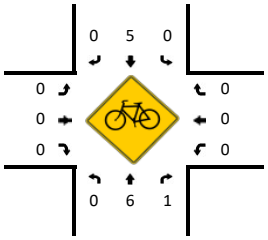
Peak-Hour: 6:05 PM -- 7:05 PM
Peak 15-Min: 6:20 PM -- 6:35 PM

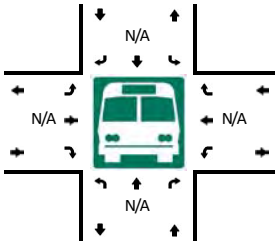


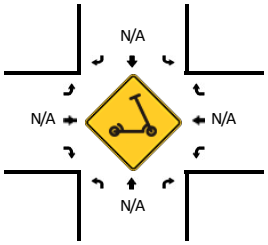












5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Clay St (Eastbound)				SE Clay St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	6	2	0	2	3	0	0	0	0	0	0	1	0	3	0	17	
6:05 PM	0	4	2	0	1	8	0	0	0	0	0	0	1	0	2	0	18	
6:10 PM	0	3	2	0	3	7	0	0	0	0	0	0	0	0	1	0	16	
6:15 PM	0	4	3	0	1	6	0	0	0	0	0	0	0	0	1	0	15	
6:20 PM	0	9	6	0	4	3	0	0	0	0	0	0	1	0	5	0	28	
6:25 PM	0	8	4	0	2	4	0	0	0	0	0	0	1	0	1	0	20	
6:30 PM	0	7	6	0	4	1	0	0	0	0	0	0	1	0	0	0	19	
6:35 PM	0	9	1	0	9	4	0	0	0	0	0	0	0	0	3	0	26	
6:40 PM	0	6	3	0	2	2	0	0	0	0	0	0	0	0	0	0	13	
6:45 PM	0	9	0	0	0	7	0	0	0	0	0	0	0	0	0	0	16	
6:50 PM	0	6	1	0	4	6	0	0	0	0	0	0	1	0	2	0	20	
6:55 PM	0	7	2	0	4	3	0	0	0	0	0	0	2	0	2	0	20	228
7:00 PM	0	3	8	0	3	4	0	0	0	0	0	0	1	0	2	0	21	232
7:05 PM	0	5	4	0	2	2	0	0	0	0	0	0	1	0	1	0	15	229
7:10 PM	0	4	2	0	4	1	0	0	0	0	0	0	0	0	1	0	12	225
7:15 PM	0	1	2	0	7	5	0	0	0	0	0	0	2	0	0	0	17	227
7:20 PM	0	2	1	0	5	2	0	0	0	0	0	0	0	0	2	0	12	211
7:25 PM	0	1	1	0	4	4	0	0	0	0	0	0	0	0	0	0	10	201
7:30 PM	0	2	4	0	4	3	0	0	0	0	0	0	0	0	2	0	15	197
7:35 PM	0	0	2	0	5	2	0	0	0	0	0	0	1	0	0	0	10	181
7:40 PM	0	0	1	0	1	5	0	0	0	0	0	0	0	0	0	0	7	175
7:45 PM	0	0	3	0	3	2	0	0	0	0	0	0	1	0	2	0	11	170
7:50 PM	0	2	2	0	2	6	0	0	0	0	0	0	1	0	1	0	14	164
7:55 PM	0	7	0	0	2	23	0	0	0	0	0	0	3	0	0	0	35	179

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	96	64	0	40	32	0	0	0	0	0	0	12	0	24	0	268
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				4				16				0			20
Bicycles	0	0	0		0	4	0		0	0	0		0	0	0		4
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

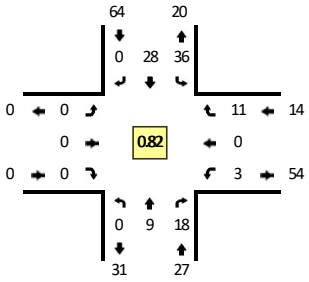
Type of peak hour being reported: Intersection Peak

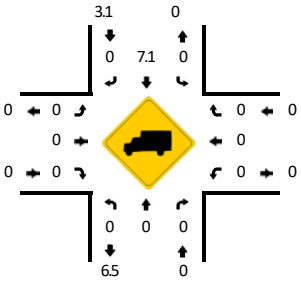
Method for determining peak hour: Total Entering Volume

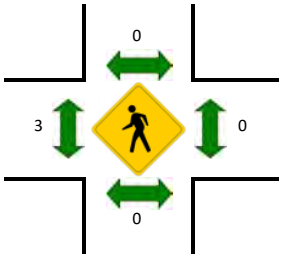
LOCATION: SE Water St -- SE Clay St
CITY/STATE: Portland, OR

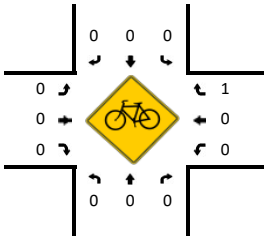
QC JOB #: 16263752
DATE: Sat, Jul 15 2023

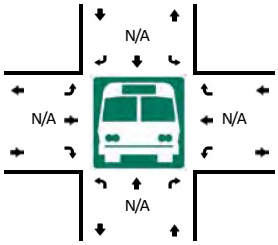
Peak-Hour: 10:00 PM -- 11:00 PM
Peak 15-Min: 10:45 PM -- 11:00 PM

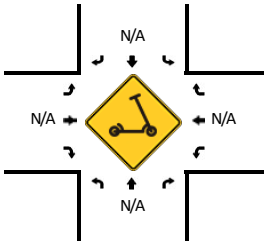












5-Min Count Period Beginning At	SE Water St (Northbound)				SE Water St (Southbound)				SE Clay St (Eastbound)				SE Clay St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	0	5	0	1	1	0	0	0	0	0	0	0	0	0	0	7	
10:05 PM	0	0	0	0	3	3	0	0	0	0	0	0	0	0	2	0	8	
10:10 PM	0	2	1	0	5	4	0	0	0	0	0	0	0	0	0	0	12	
10:15 PM	0	1	1	0	1	2	0	0	0	0	0	0	0	0	0	0	5	
10:20 PM	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	4	
10:25 PM	0	2	0	0	7	2	0	0	0	0	0	0	2	0	1	0	14	
10:30 PM	0	0	2	0	3	2	0	0	0	0	0	0	0	0	0	0	7	
10:35 PM	0	0	0	0	0	5	0	0	0	0	0	0	0	0	2	0	7	
10:40 PM	0	1	3	0	2	2	0	0	0	0	0	0	1	0	0	0	9	
10:45 PM	0	2	0	0	5	2	0	0	0	0	0	0	0	0	1	0	10	
10:50 PM	0	1	2	0	1	2	0	0	0	0	0	0	0	0	3	0	9	
10:55 PM	0	0	3	0	5	3	0	0	0	0	0	0	0	0	2	0	13	105
11:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	3	101
11:05 PM	0	2	0	0	4	2	0	0	0	0	0	0	0	0	1	0	9	102
11:10 PM	0	1	0	0	1	4	0	0	0	0	0	0	0	0	0	0	6	96
11:15 PM	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	4	95
11:20 PM	0	0	0	0	2	1	0	0	0	0	0	0	0	0	1	0	4	95
11:25 PM	0	0	1	0	2	1	0	0	0	0	0	0	0	0	1	0	5	86
11:30 PM	0	0	0	0	4	2	0	0	0	0	0	0	0	0	1	0	7	86
11:35 PM	0	0	4	0	4	1	0	0	0	0	0	0	0	0	2	0	11	90
11:40 PM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	3	0	7	88
11:45 PM	0	4	0	0	4	0	0	0	0	0	0	0	1	0	0	0	9	87
11:50 PM	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	3	81
11:55 PM	0	0	1	0	2	3	0	0	0	0	0	0	1	0	0	0	7	75

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	12	20	0	44	28	0	0	0	0	0	0	0	0	24	0	128
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

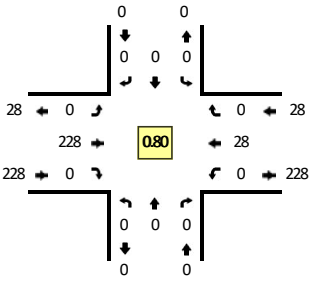
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

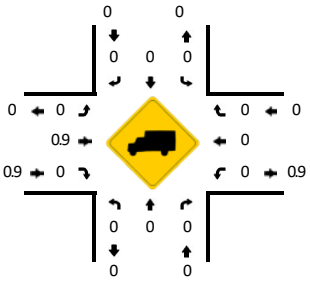
LU 23-111784 CU AD Exhibit A-10

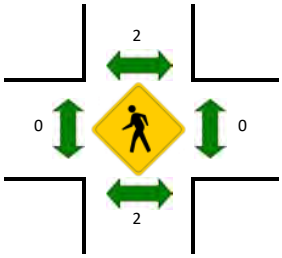
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

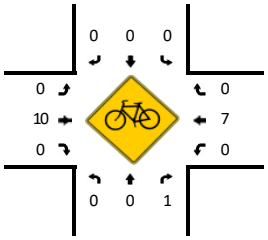
LOCATION: RR Crossing -- SE Stark St | **QC JOB #:** 16263753
CITY/STATE: Portland, OR | **DATE:** Thu, Jul 13 2023

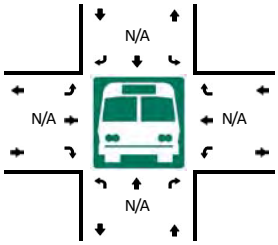
Peak-Hour: 6:05 PM -- 7:05 PM
Peak 15-Min: 6:05 PM -- 6:20 PM

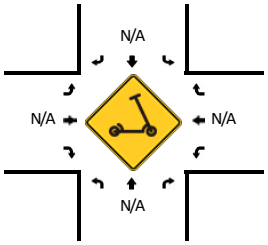












5-Min Count Period Beginning At	RR Crossing (Northbound)				RR Crossing (Southbound)				SE Stark St (Eastbound)				SE Stark St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	0	0	0	0	0	0	0	0	14	0	0	0	2	0	0	16	
6:05 PM	0	0	0	0	0	0	0	0	0	21	0	0	0	3	0	0	24	
6:10 PM	0	0	0	0	0	0	0	0	0	31	0	0	0	3	0	0	34	
6:15 PM	0	0	0	0	0	0	0	0	0	18	0	0	0	4	0	0	22	
6:20 PM	0	0	0	0	0	0	0	0	0	16	0	0	0	1	0	0	17	
6:25 PM	0	0	0	0	0	0	0	0	0	11	0	0	0	2	0	0	13	
6:30 PM	0	0	0	0	0	0	0	0	0	23	0	0	0	1	0	0	24	
6:35 PM	0	0	0	0	0	0	0	0	0	14	0	0	0	3	0	0	17	
6:40 PM	0	0	0	0	0	0	0	0	0	25	0	0	0	3	0	0	28	
6:45 PM	0	0	0	0	0	0	0	0	0	20	0	0	0	1	0	0	21	
6:50 PM	0	0	0	0	0	0	0	0	0	20	0	0	0	2	0	0	22	
6:55 PM	0	0	0	0	0	0	0	0	0	12	0	0	0	2	0	0	14	252
7:00 PM	0	0	0	0	0	0	0	0	0	17	0	0	0	3	0	0	20	256
7:05 PM	0	0	0	0	0	0	0	0	0	16	0	0	0	2	0	0	18	250
7:10 PM	0	0	0	0	0	0	0	0	0	19	0	0	0	3	0	0	22	238
7:15 PM	0	0	0	0	0	0	0	0	0	19	0	0	0	0	0	0	19	235
7:20 PM	0	0	0	0	0	0	0	0	0	14	0	0	0	2	0	0	16	234
7:25 PM	0	0	0	0	0	0	0	0	0	16	0	0	0	2	0	0	18	239
7:30 PM	0	0	0	0	0	0	0	0	0	17	0	0	0	4	0	0	21	236
7:35 PM	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	20	239
7:40 PM	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	10	221
7:45 PM	0	0	0	0	0	0	0	0	0	19	0	0	0	3	0	0	22	222
7:50 PM	0	0	0	0	0	0	0	0	0	13	0	0	0	1	0	0	14	214
7:55 PM	0	0	0	0	0	0	0	0	0	6	0	0	0	2	0	0	8	208

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	0	0	0	0	280	0	0	0	40	0	0	320
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	8	0		8
Scooters																	

Comments:

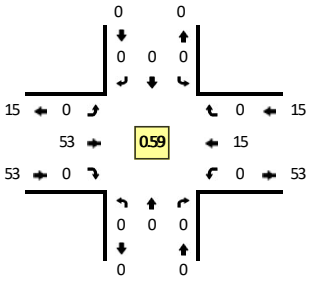
Report generated on 7/26/2023 12:41 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

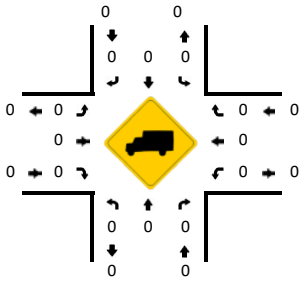
LU 23-111784 CU AD Exhibit A-10

Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

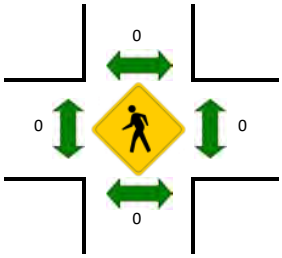
LOCATION: RR Crossing -- SE Stark St | **QC JOB #:** 16263754
CITY/STATE: Portland, OR | **DATE:** Thu, Jul 13 2023

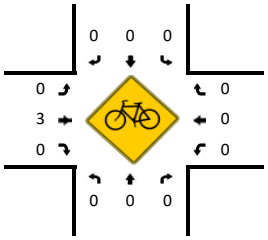
Peak-Hour: 10:00 PM -- 11:00 PM
Peak 15-Min: 10:00 PM -- 10:15 PM

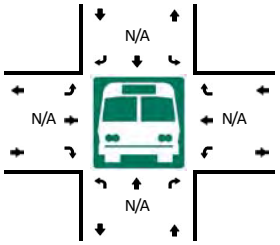


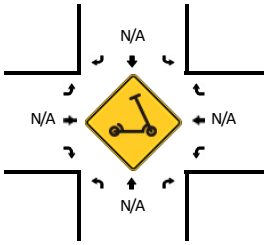


Quality Counts
DATA THAT DRIVES COMMUNITIES









5-Min Count Period Beginning At	RR Crossing (Northbound)				RR Crossing (Southbound)				SE Stark St (Eastbound)				SE Stark St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	0	0	0	0	0	0	0	0	9	0	0	0	4	0	0	13	
10:05 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2	
10:10 PM	0	0	0	0	0	0	0	0	0	11	0	0	0	3	0	0	14	
10:15 PM	0	0	0	0	0	0	0	0	0	8	0	0	0	1	0	0	9	
10:20 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3	
10:25 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	4	
10:30 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	
10:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:45 PM	0	0	0	0	0	0	0	0	0	6	0	0	0	1	0	0	7	
10:50 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	
10:55 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	3	0	0	8	68
11:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	57
11:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55
11:10 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	4	45
11:15 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	0	5	41
11:20 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	0	5	43
11:25 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	0	5	44
11:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3	43
11:35 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	45
11:40 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	0	5	50
11:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	44
11:50 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	42
11:55 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	4	38

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	0	0	0	0	84	0	0	0	32	0	0	116
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

LU 23-111784 CU AD Exhibit A-10

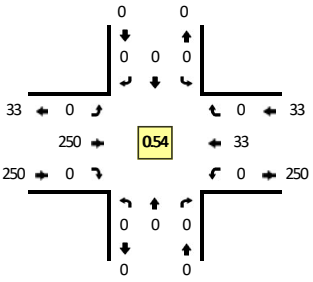
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

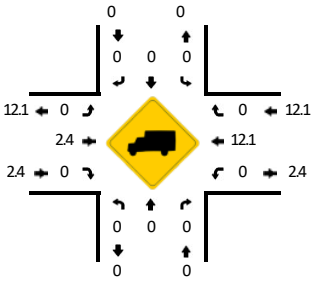
LOCATION: RR Crossing -- SE Stark St
CITY/STATE: Portland, OR

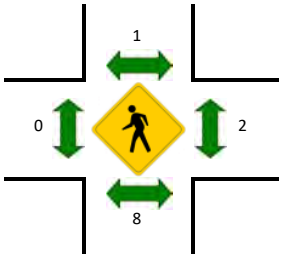
QC JOB #: 16263755
DATE: Sat, Jul 15 2023

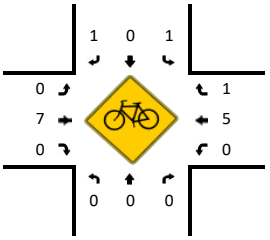
Peak-Hour: 6:00 PM -- 7:00 PM
Peak 15-Min: 6:00 PM -- 6:15 PM

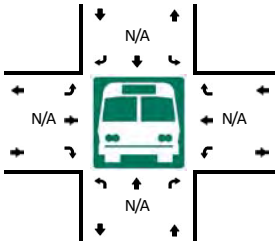


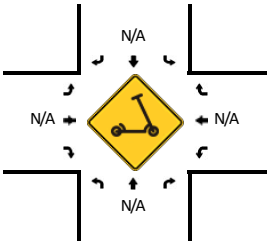
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	RR Crossing (Northbound)				RR Crossing (Southbound)				SE Stark St (Eastbound)				SE Stark St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 PM	0	0	0	0	0	0	0	0	0	64	0	0	0	7	0	0	71	
6:05 PM	0	0	0	0	0	0	0	0	0	39	0	0	0	1	0	0	40	
6:10 PM	0	0	0	0	0	0	0	0	0	20	0	0	0	1	0	0	21	
6:15 PM	0	0	0	0	0	0	0	0	0	14	0	0	0	4	0	0	18	
6:20 PM	0	0	0	0	0	0	0	0	0	13	0	0	0	4	0	0	17	
6:25 PM	0	0	0	0	0	0	0	0	0	23	0	0	0	3	0	0	26	
6:30 PM	0	0	0	0	0	0	0	0	0	10	0	0	0	4	0	0	14	
6:35 PM	0	0	0	0	0	0	0	0	0	18	0	0	0	0	0	0	18	
6:40 PM	0	0	0	0	0	0	0	0	0	7	0	0	0	4	0	0	11	
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:55 PM	0	0	0	0	0	0	0	0	0	42	0	0	0	5	0	0	47	283
7:00 PM	0	0	0	0	0	0	0	0	0	19	0	0	0	3	0	0	22	234
7:05 PM	0	0	0	0	0	0	0	0	0	16	0	0	0	1	0	0	17	211
7:10 PM	0	0	0	0	0	0	0	0	0	18	0	0	0	2	0	0	20	210
7:15 PM	0	0	0	0	0	0	0	0	0	14	0	0	0	1	0	0	15	207
7:20 PM	0	0	0	0	0	0	0	0	0	17	0	0	0	5	0	0	22	212
7:25 PM	0	0	0	0	0	0	0	0	0	15	0	0	0	2	0	0	17	203
7:30 PM	0	0	0	0	0	0	0	0	0	10	0	0	0	2	0	0	12	201
7:35 PM	0	0	0	0	0	0	0	0	0	11	0	0	0	1	0	0	12	195
7:40 PM	0	0	0	0	0	0	0	0	0	11	0	0	0	3	0	0	14	198
7:45 PM	0	0	0	0	0	0	0	0	0	15	0	0	0	1	0	0	16	214
7:50 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	216
7:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	169

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	0	0	0	0	492	0	0	0	36	0	0	528
Heavy Trucks	0	0	0		0	0	0		0	4	0		0	0	0		4
Buses																	
Pedestrians		20				4				0				0			24
Bicycles	0	0	0		4	0	0		0	20	0		0	4	0		28
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

LU 23-111784 CU AD Exhibit A-10

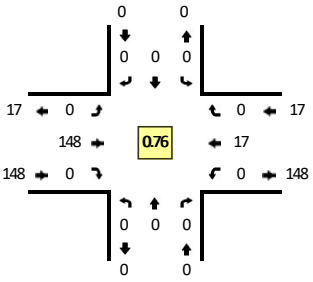
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

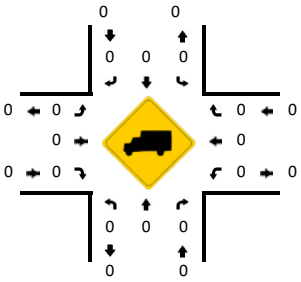
LOCATION: RR Crossing -- SE Stark St
CITY/STATE: Portland, OR

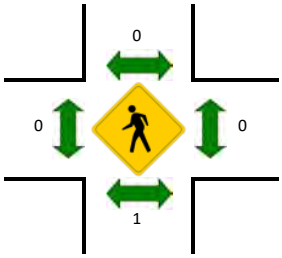
QC JOB #: 16263756
DATE: Sat, Jul 15 2023

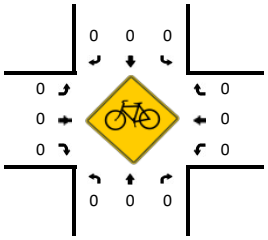
Peak-Hour: 10:00 PM -- 11:00 PM
Peak 15-Min: 10:35 PM -- 10:50 PM

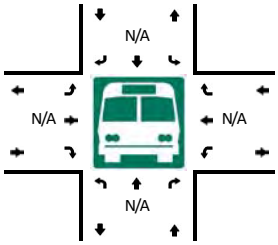


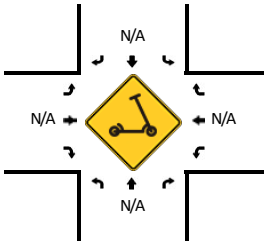
Quality Counts
DATA THAT DRIVES COMMUNITIES











5-Min Count Period Beginning At	RR Crossing (Northbound)				RR Crossing (Southbound)				SE Stark St (Eastbound)				SE Stark St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
10:00 PM	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	13	
10:05 PM	0	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	16	
10:10 PM	0	0	0	0	0	0	0	0	0	10	0	0	0	3	0	0	13	
10:15 PM	0	0	0	0	0	0	0	0	0	12	0	0	0	1	0	0	13	
10:20 PM	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9	
10:25 PM	0	0	0	0	0	0	0	0	0	18	0	0	0	1	0	0	19	
10:30 PM	0	0	0	0	0	0	0	0	0	7	0	0	0	1	0	0	8	
10:35 PM	0	0	0	0	0	0	0	0	0	14	0	0	0	4	0	0	18	
10:40 PM	0	0	0	0	0	0	0	0	0	14	0	0	0	4	0	0	18	
10:45 PM	0	0	0	0	0	0	0	0	0	16	0	0	0	2	0	0	18	
10:50 PM	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9	
10:55 PM	0	0	0	0	0	0	0	0	0	10	0	0	0	1	0	0	11	165
11:00 PM	0	0	0	0	0	0	0	0	0	11	0	0	0	1	0	0	12	164
11:05 PM	0	0	0	0	0	0	0	0	0	10	0	0	0	2	0	0	12	160
11:10 PM	0	0	0	0	0	0	0	0	0	9	0	0	0	5	0	0	14	161
11:15 PM	0	0	0	0	0	0	0	0	0	10	0	0	0	1	0	0	11	159
11:20 PM	0	0	0	0	0	0	0	0	0	6	0	0	0	2	0	0	8	158
11:25 PM	0	0	0	0	0	0	0	0	0	8	0	0	0	2	0	0	10	149
11:30 PM	0	0	0	0	0	0	0	0	0	6	0	0	0	3	0	0	9	150
11:35 PM	0	0	0	0	0	0	0	0	0	7	0	0	0	2	0	0	9	141
11:40 PM	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6	129
11:45 PM	0	0	0	0	0	0	0	0	0	9	0	0	0	1	0	0	10	121
11:50 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	0	4	116
11:55 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	107

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	0	0	0	0	176	0	0	0	40	0	0	216
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 7/26/2023 12:41 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

LU 23-111784 CU AD Exhibit A-10

SECTION 4: TRAIN SURVEY DATA

Crossing	Start	End	Gate Down Time	Type	Direction		
1	12:45:20 AM	12:50:38 AM	0:05:18	freight	south		12-1 a.m.
2	1:03:40 AM	1:04:43 AM	0:01:03	freight	south		1-2 a.m.
3	2:24:00 AM	2:28:50 AM	0:04:50	freight	south		2-3 a.m.
4	3:09:50 AM	3:19:02 AM	0:09:12	freight	north		3-4 a.m.
5	3:58:20 AM	4:06:40 AM	0:08:20	freight	south		3-4 a.m.
6	6:05:45 AM	6:19:01 AM	0:13:16	freight	south		6-7 a.m.
7	7:56:43 AM	7:57:28 AM	0:00:45	amtrak	north		
8	9:37:40 AM	9:51:02 AM	0:13:22	freight	south		9-10 a.m.
9	11:19:35 AM	11:20:15 AM	0:00:40	amtrak	south		
10	11:59:00 AM	12:05:08 PM	0:06:08	freight	north		12-1 p.m.
11	1:29:12 PM	1:33:17 PM	0:04:05	freight	north ; switch to south		1-2 p.m.
12	1:36:30 PM	1:37:12 PM	0:00:42	none			
13	1:45:31 PM	3:02:28 PM	1:16:57	freight	north ; switch to south; switch to north	SB Water queue to Yamhill; nb water queue near Yamhill	1-2 p.m.
14	3:15:58 PM	3:17:26 PM	0:01:28	freight	north		3-4 p.m.
15	3:22:50 PM	3:23:40 PM	0:00:50	amtrak	south		
16	3:48:23 PM	3:49:10 PM	0:00:47	amtrak	north		
17	5:21:33 PM	5:25:33 PM	0:04:00	freight	north		5-6 p.m.
18	6:24:59 PM	6:25:47 PM	0:00:48	amtrak	south		
19	6:34:26 PM	6:35:23 PM	0:00:57	freight	south		6-7 p.m.
20	7:09:17 PM	7:09:59 PM	0:00:42	amtrak	north		
21	8:53:36 PM	9:02:35 PM	0:08:59	freight	north		8-9 p.m.
22	9:18:20 PM	9:19:35 PM	0:01:15	freight	north		9-10 p.m.
23	10:09:58 PM	10:12:47 PM	0:02:49	freight	south		10-11 p.m.
24	10:39:50 PM	10:47:59 PM	0:08:09	freight	south		10-11 p.m.

freight	17	2:50:08	0:10:00
Amtrak	6	0:04:32	0:00:45
	23	2:54:40	0:07:36

	freight	Amtrak	
12-4 A.M.	5		5
4-8 A.M.	1		1
8 A.M.-12 P.M.	2	2	4
12-4 P.M.	3	2	5
4-8 P.M.	2	2	4
8 P.M.-12 A.M.	4		4
	17	6	23

	Freight	Amtrak
12-1 a.m.	1	
1-2 a.m.	1	
2-3 a.m.	1	
3-4 a.m.	2	
4-5 a.m.	0	
5-6 a.m.	0	
6-7 a.m.	1	
7-8 a.m.	0	
8-9 a.m.	0	1
9-10 a.m.	1	
10-11 a.m.	0	
11-12 p.m.	0	1
12-1 p.m.	1	
1-2 p.m.	2	
2-3 p.m.	0	1
3-4 p.m.	1	1
4-5 p.m.	0	
5-6 p.m.	1	
6-7 P.M.	1	1
7-8 P.M.	0	1
8-9 P.M.	1	
9-10 P.M.	1	
10-11 P.M.	2	
11 P.M.-12 A.M.	0	
	17	6

SECTION 5: RAIL CROSSING INVENTORY

U. S. DOT CROSSING INVENTORY FORM

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk * denotes an optional field.

A. Revision Date (MM/DD/YYYY)	B. Reporting Agency	C. Reason for Update (Select only one)	D. DOT Crossing Inventory Number
03 / 19 / 2021	☒ Railroad ☐ Transit ☐ State ☐ Other	☒ Change in Data ☐ New Crossing ☐ Closed ☐ No Train Traffic ☐ Quiet Zone Update ☐ Re-Open ☐ Date Change Only ☐ Change in Primary Operating RR ☐ Admin. Correction	754559V

Part I: Location and Classification Information

1. Primary Operating Railroad	2. State	3. County
Union Pacific Railroad Company [UP]	OREGON	MULTNOMAH

4. City / Municipality	5. Street/Road Name & Block Number	6. Highway Type & No.
☒ In ☐ Near PORTLAND	Southeast Clay Street (Street/Road Name) | * (Block Number)	LS

7. Do Other Railroads Operate a Separate Track at Crossing?	8. Do Other Railroads Operate Over Your Track at Crossing?
☐ Yes ☒ No If Yes, Specify RR	☒ Yes ☐ No If Yes, Specify RR ATK, BNSF, PNWR

9. Railroad Division or Region	10. Railroad Subdivision or District	11. Branch or Line Name	12. RR Milepost
☐ None Pacific Northwest	☐ None Brooklyn Sub	☒ None	(prefix) | 0769.240 | (suffix) (nnnn.nnn)

13. Line Segment *	14. Nearest RR Timetable Station *	15. Parent RR (if applicable)	16. Crossing Owner (if applicable)
		☒ N/A	☐ N/A UP

17. Crossing Type	18. Crossing Purpose	19. Crossing Position	20. Public Access (if Private Crossing)	21. Type of Train	22. Average Passenger Train Count Per Day
☒ Public ☐ Private	☒ Highway ☐ Pathway, Ped. ☐ Station, Ped.	☒ At Grade ☐ RR Under ☐ RR Over	☐ Yes ☐ No	☒ Freight ☒ Intercity Passenger ☐ Commuter ☐ Transit ☐ Shared Use Transit ☐ Tourist/Other	☐ Less Than One Per Day ☒ Number Per Day 6

23. Type of Land Use
☐ Open Space ☐ Farm ☐ Residential ☒ Commercial ☐ Industrial ☐ Institutional ☐ Recreational ☐ RR Yard

24. Is there an Adjacent Crossing with a Separate Number?	25. Quiet Zone (FRA provided)
☐ Yes ☒ No If Yes, Provide Crossing Number	☒ No ☐ 24 Hr ☐ Partial ☐ Chicago Excused Date Established

26. HSR Corridor ID	27. Latitude in decimal degrees	28. Longitude in decimal degrees	29. Lat/Long Source
☒ N/A	(WGS84 std: nn.nnnnnnn) 45.5115350	(WGS84 std: -nnn.nnnnnnn) -122.6648290	☒ Actual ☐ Estimated

30.A. Railroad Use *	31.A. State Use *
30.B. Railroad Use *	31.B. State Use *
30.C. Railroad Use *	31.C. State Use * State Phone# updated - date updated: 2018-08-31
30.D. Railroad Use *	31.D. State Use * C-769.24
32.A. Narrative (Railroad Use) *	32.B. Narrative (State Use) * QZ CORRECTION.

33. Emergency Notification Telephone No. (posted)	34. Railroad Contact (Telephone No.)	35. State Contact (Telephone No.)
800-848-8715	402-544-3721	509-986-4273

Part II: Railroad Information

1. Estimated Number of Daily Train Movements

1.A. Total Day Thru Trains (6 AM to 6 PM)	1.B. Total Night Thru Trains (6 PM to 6 AM)	1.C. Total Switching Trains	1.D. Total Transit Trains	1.E. Check if Less Than One Movement Per Day ☐ How many trains per week?
13	12	2	0	

2. Year of Train Count Data (YYYY)	3. Speed of Train at Crossing
2020	3.A. Maximum Timetable Speed (mph) 35 3.B. Typical Speed Range Over Crossing (mph) From 17 to 35

4. Type and Count of Tracks
Main 2 Siding 0 Yard 0 Transit 0 Industry 0

5. Train Detection (Main Track only)
☒ Constant Warning Time ☐ Motion Detection ☐AFO ☐ PTC ☐ DC ☐ Other ☐ None

6. Is Track Signaled?	7.A. Event Recorder	7.B. Remote Health Monitoring
☒ Yes ☐ No	☒ Yes ☐ No	☐ Yes ☒ No

U. S. DOT CROSSING INVENTORY FORM

A. Revision Date *(MM/DD/YYYY)*	PAGE 2	D. Crossing Inventory Number *(7 char.)*
03/19/2021		754559V

Part III: Highway or Pathway Traffic Control Device Information

1. Are there Signs or Signals? ☒ Yes ☐ No

2. Types of Passive Traffic Control Devices associated with the Crossing

2.A. Crossbuck Assemblies *(count)*	2.B. STOP Signs *(R1-1)* *(count)*	2.C. YIELD Signs *(R1-2)* *(count)*	2.D. Advance Warning Signs *(Check all that apply; include count)* ☐ None
0	0	0	☒ W10-1 2 ☐ W10-3 ☐ W10-11 ☐ W10-2 ☐ W10-4 ☐ W10-12

2.E. Low Ground Clearance Sign *(W10-5)*	2.F. Pavement Markings	2.G. Channelization Devices/Medians	2.H. EXEMPT Sign *(R15-3)*	2.I. ENS Sign *(I-13)* Displayed
☐ Yes *(count_____)* ☒ No	☒ Stop Lines ☐ Dynamic Envelope ☒ RR Xing Symbols ☐ None	☐ All Approaches ☐ Median ☐ One Approach ☒ None	☐ Yes ☒ No	☒ Yes ☐ No

2.J. Other MUTCD Signs ☐ Yes ☒ No	2.K. Private Crossing Signs *(if private)*	2.L. LED Enhanced Signs *(List types)*
Specify Type _____ Count _____ Specify Type _____ Count _____ Specify Type _____ Count _____	☐ Yes ☐ No	

3. Types of Train Activated Warning Devices at the Grade Crossing *(specify count of each device for all that apply)*

3.A. Gate Arms *(count)*	3.B. Gate Configuration	3.C. Cantilevered *(or Bridged)* Flashing Light Structures *(count)*	3.D. Mast Mounted Flashing Lights *(count of masts)* 2	3.E. Total Count of Flashing Light Pairs
Roadway 2 Pedestrian 0	☒ 2 Quad ☐ Full *(Barrier)* Resistance ☐ 3 Quad ☐ 4 Quad ☐ Median Gates	Over Traffic Lane 2 ☐ Incandescent Not Over Traffic Lane 0 ☒ LED	☐ Incandescent ☒ LED ☒ Back Lights Included ☐ Side Lights Included	8

3.F. Installation Date of Current Active Warning Devices: *(MM/YYYY)*	3.G. Wayside Horn	3.H. Highway Traffic Signals Controlling Crossing	3.I. Bells *(count)*
_____/_____ ☒ Not Required	☐ Yes Installed on *(MM/YYYY)* _____/_____ ☒ No	☐ Yes ☒ No	2

3.J. Non-Train Active Warning	3.K. Other Flashing Lights or Warning Devices
☐ Flagging/Flagman ☐ Manually Operated Signals ☐ Watchman ☐ Floodlighting ☒ None	Count 0 Specify type _____

4.A. Does nearby Hwy Intersection have Traffic Signals?	4.B. Hwy Traffic Signal Interconnection	4.C. Hwy Traffic Signal Preemption	5. Highway Traffic Pre-Signals	6. Highway Monitoring Devices *(Check all that apply)*
☒ Yes ☐ No	☒ Not Interconnected ☐ For Traffic Signals ☐ For Warning Signs	☐ Simultaneous ☐ Advance	☐ Yes ☒ No Storage Distance * _____ Stop Line Distance * _____	☐ Yes - Photo/Video Recording ☐ Yes – Vehicle Presence Detection ☒ None

Part IV: Physical Characteristics

1. Traffic Lanes Crossing Railroad	2. Is Roadway/Pathway Paved?	3. Does Track Run Down a Street?	4. Is Crossing Illuminated? *(Street lights within approx. 50 feet from nearest rail)*
☐ One-way Traffic ☒ Two-way Traffic Number of Lanes 2 ☐ Divided Traffic	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No

5. Crossing Surface *(on Main Track, multiple types allowed)* Installation Date * *(MM/YYYY)* _____/_____ Width * _____ Length * 60

☐ 1 Timber ☐ 2 Asphalt ☐ 3 Asphalt and Timber ☒ 4 Concrete ☐ 5 Concrete and Rubber ☐ 6 Rubber ☐ 7 Metal
☐ 8 Unconsolidated ☐ 9 Composite ☐ 10 Other *(specify)* _____

6. Intersecting Roadway within 500 feet?	7. Smallest Crossing Angle	8. Is Commercial Power Available? *
☒ Yes ☐ No If Yes, Approximate Distance *(feet)* _____	☐ 0° – 29° ☐ 30° – 59° ☒ 60° - 90°	☒ Yes ☐ No

Part V: Public Highway Information

1. Highway System	2. Functional Classification of Road at Crossing	3. Is Crossing on State Highway System?	4. Highway Speed Limit
☐ (01) Interstate Highway System ☒ (02) Other Nat Hwy System (NHS) ☐ (03) Federal AID, Not NHS ☐ (08) Non-Federal Aid	☐ (0) Rural ☒ (1) Urban ☐ (1) Interstate ☒ (5) Major Collector ☐ (2) Other Freeways and Expressways ☐ (3) Other Principal Arterial ☐ (6) Minor Collector ☐ (4) Minor Arterial ☐ (7) Local	☐ Yes ☒ No	_____ MPH ☐ Posted ☐ Statutory

5. Linear Referencing System *(LRS Route ID)* *

6. LRS Milepost *

7. Annual Average Daily Traffic *(AADT)*	8. Estimated Percent Trucks	9. Regularly Used by School Buses?	10. Emergency Services Route
Year 1994 AADT 3992	25 %	☐ Yes ☒ No Average Number per Day _____	☐ Yes ☐ No

Submission Information - *This information is used for administrative purposes and is not available on the public website.*

Submitted by _____ Organization _____ Phone _____ Date _____

U. S. DOT CROSSING INVENTORY FORM

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk * denotes an optional field.

A. Revision Date (MM/DD/YYYY)	B. Reporting Agency	C. Reason for Update (Select only one)	D. DOT Crossing Inventory Number
03 / 22 / 2021	☒ Railroad ☐ Transit ☐ State ☐ Other	☒ Change in Data ☐ New Crossing ☐ Closed ☐ No Train Traffic ☐ Quiet Zone Update ☐ Re-Open ☐ Date Change Only ☐ Change in Primary Operating RR ☐ Admin. Correction	754553E

Part I: Location and Classification Information

1. Primary Operating Railroad	2. State	3. County
Union Pacific Railroad Company [UP]	OREGON	MULTNOMAH

4. City / Municipality	5. Street/Road Name & Block Number	6. Highway Type & No.
☒ In ☐ Near PORTLAND	Southeast Main Street (Street/Road Name) | * (Block Number)	LS

7. Do Other Railroads Operate a Separate Track at Crossing?	8. Do Other Railroads Operate Over Your Track at Crossing?
☐ Yes ☒ No If Yes, Specify RR	☒ Yes ☐ No If Yes, Specify RR ATK, BNSF, PNWR

9. Railroad Division or Region	10. Railroad Subdivision or District	11. Branch or Line Name	12. RR Milepost
☐ None Pacific Northwest	☐ None Brooklyn Sub	☒ None	(prefix) | 0769.380 | (suffix) (nnnn.nnn)

13. Line Segment *	14. Nearest RR Timetable Station *	15. Parent RR (if applicable)	16. Crossing Owner (if applicable)
		☒ N/A	☐ N/A UP

17. Crossing Type	18. Crossing Purpose	19. Crossing Position	20. Public Access (if Private Crossing)	21. Type of Train	22. Average Passenger Train Count Per Day
☒ Public ☐ Private	☒ Highway ☐ Pathway, Ped. ☐ Station, Ped.	☒ At Grade ☐ RR Under ☐ RR Over	☐ Yes ☐ No	☒ Freight ☒ Intercity Passenger ☐ Commuter ☐ Transit ☐ Shared Use Transit ☐ Tourist/Other	☐ Less Than One Per Day ☒ Number Per Day 6

23. Type of Land Use
☐ Open Space ☐ Farm ☐ Residential ☒ Commercial ☐ Industrial ☐ Institutional ☐ Recreational ☐ RR Yard

24. Is there an Adjacent Crossing with a Separate Number?	25. Quiet Zone (FRA provided)
☐ Yes ☒ No If Yes, Provide Crossing Number	☒ No ☐ 24 Hr ☐ Partial ☐ Chicago Excused Date Established

26. HSR Corridor ID	27. Latitude in decimal degrees	28. Longitude in decimal degrees	29. Lat/Long Source
☒ N/A	(WGS84 std: nn.nnnnnnn) 45.5136760	(WGS84 std: -nnn.nnnnnnn) -122.6648290	☒ Actual ☐ Estimated

30.A. Railroad Use *	31.A. State Use *
30.B. Railroad Use *	31.B. State Use *
30.C. Railroad Use *	31.C. State Use * State Phone# updated - date updated: 2022-10-20
30.D. Railroad Use *	31.D. State Use * C-769.38
32.A. Narrative (Railroad Use) *	32.B. Narrative (State Use) *

33. Emergency Notification Telephone No. (posted)	34. Railroad Contact (Telephone No.)	35. State Contact (Telephone No.)
800-848-8715	402-544-3721	541-250-6788

Part II: Railroad Information

1. Estimated Number of Daily Train Movements

1.A. Total Day Thru Trains (6 AM to 6 PM)	1.B. Total Night Thru Trains (6 PM to 6 AM)	1.C. Total Switching Trains	1.D. Total Transit Trains	1.E. Check if Less Than One Movement Per Day ☐ How many trains per week?
13	12	3	0	

2. Year of Train Count Data (YYYY)	3. Speed of Train at Crossing
2020	3.A. Maximum Timetable Speed (mph) 35 3.B. Typical Speed Range Over Crossing (mph) From 17 to 35

4. Type and Count of Tracks
Main 2 Siding 0 Yard 0 Transit 0 Industry 0

5. Train Detection (Main Track only)
☒ Constant Warning Time ☐ Motion Detection ☐AFO ☐ PTC ☐ DC ☐ Other ☐ None

6. Is Track Signaled?	7.A. Event Recorder	7.B. Remote Health Monitoring
☒ Yes ☐ No	☒ Yes ☐ No	☐ Yes ☒ No

U. S. DOT CROSSING INVENTORY FORM

A. Revision Date *(MM/DD/YYYY)*	PAGE 2	D. Crossing Inventory Number *(7 char.)*
03/22/2021		754553E

Part III: Highway or Pathway Traffic Control Device Information

1. Are there Signs or Signals? ☒ Yes ☐ No

2. Types of Passive Traffic Control Devices associated with the Crossing

2.A. Crossbuck Assemblies *(count)*	2.B. STOP Signs *(R1-1)* *(count)*	2.C. YIELD Signs *(R1-2)* *(count)*	2.D. Advance Warning Signs *(Check all that apply; include count)* ☐ None
0	0	0	☒ W10-1 1 ☐ W10-3 ☐ W10-11 ☐ W10-2 ☐ W10-4 ☐ W10-12

2.E. Low Ground Clearance Sign *(W10-5)*	2.F. Pavement Markings	2.G. Channelization Devices/Medians	2.H. EXEMPT Sign *(R15-3)*	2.I. ENS Sign *(I-13)* Displayed
☐ Yes *(count 0)* ☒ No	☒ Stop Lines ☐ Dynamic Envelope ☒ RR Xing Symbols ☐ None	☐ All Approaches ☐ Median ☐ One Approach ☒ None	☐ Yes ☒ No	☒ Yes ☐ No

2.J. Other MUTCD Signs ☒ Yes ☐ No	2.K. Private Crossing Signs *(if private)*	2.L. LED Enhanced Signs *(List types)*
Specify Type _____ Count 2 Specify Type _____ Count 0 Specify Type _____ Count 0	☐ Yes ☐ No	

3. Types of Train Activated Warning Devices at the Grade Crossing *(specify count of each device for all that apply)*

3.A. Gate Arms *(count)*	3.B. Gate Configuration	3.C. Cantilevered *(or Bridged)* Flashing Light Structures *(count)*	3.D. Mast Mounted Flashing Lights *(count of masts)* 2	3.E. Total Count of Flashing Light Pairs
Roadway 2 Pedestrian 0	☒ 2 Quad ☐ Full *(Barrier)* Resistance ☐ 3 Quad ☐ 4 Quad ☐ Median Gates	Over Traffic Lane 0 ☐ Incandescent Not Over Traffic Lane 0 ☐ LED	☐ Incandescent ☒ LED ☒ Back Lights Included ☐ Side Lights Included	4

3.F. Installation Date of Current Active Warning Devices: *(MM/YYYY)*	3.G. Wayside Horn	3.H. Highway Traffic Signals Controlling Crossing	3.I. Bells *(count)*
_____/_____ ☒ Not Required	☐ Yes Installed on *(MM/YYYY)* _____/_____ ☒ No	☐ Yes ☒ No	2

3.J. Non-Train Active Warning	3.K. Other Flashing Lights or Warning Devices
☐ Flagging/Flagman ☐ Manually Operated Signals ☐ Watchman ☐ Floodlighting ☒ None	Count 0 Specify type _____

4.A. Does nearby Hwy Intersection have Traffic Signals?	4.B. Hwy Traffic Signal Interconnection	4.C. Hwy Traffic Signal Preemption	5. Highway Traffic Pre-Signals	6. Highway Monitoring Devices *(Check all that apply)*
☐ Yes ☒ No	☒ Not Interconnected ☐ For Traffic Signals ☐ For Warning Signs	☐ Simultaneous ☐ Advance	☐ Yes ☒ No Storage Distance * _____ Stop Line Distance * _____	☐ Yes - Photo/Video Recording ☐ Yes – Vehicle Presence Detection ☒ None

Part IV: Physical Characteristics

1. Traffic Lanes Crossing Railroad	2. Is Roadway/Pathway Paved?	3. Does Track Run Down a Street?	4. Is Crossing Illuminated? *(Street lights within approx. 50 feet from nearest rail)*
☐ One-way Traffic ☒ Two-way Traffic ☐ Divided Traffic Number of Lanes 2	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No

5. Crossing Surface *(on Main Track, multiple types allowed)* Installation Date * *(MM/YYYY)* _____/_____ Width * _____ Length * _____
☐ 1 Timber ☐ 2 Asphalt ☐ 3 Asphalt and Timber ☒ 4 Concrete ☐ 5 Concrete and Rubber ☐ 6 Rubber ☐ 7 Metal
☐ 8 Unconsolidated ☐ 9 Composite ☐ 10 Other *(specify)* _____

6. Intersecting Roadway within 500 feet?	7. Smallest Crossing Angle	8. Is Commercial Power Available? *
☒ Yes ☐ No If Yes, Approximate Distance *(feet)* _____	☐ 0° – 29° ☐ 30° – 59° ☒ 60° - 90°	☒ Yes ☐ No

Part V: Public Highway Information

1. Highway System	2. Functional Classification of Road at Crossing	3. Is Crossing on State Highway System?	4. Highway Speed Limit
☐ (01) Interstate Highway System ☐ (02) Other Nat Hwy System (NHS) ☐ (03) Federal AID, Not NHS ☒ (08) Non-Federal Aid	☐ (0) Rural ☒ (1) Urban ☐ (1) Interstate ☐ (5) Major Collector ☐ (2) Other Freeways and Expressways ☐ (3) Other Principal Arterial ☐ (6) Minor Collector ☐ (4) Minor Arterial ☒ (7) Local	☐ Yes ☒ No	_____ MPH ☐ Posted ☐ Statutory

5. Linear Referencing System *(LRS Route ID)* *

6. LRS Milepost *

7. Annual Average Daily Traffic *(AADT)*	8. Estimated Percent Trucks	9. Regularly Used by School Buses?	10. Emergency Services Route
Year 1988 AADT 500	40 %	☐ Yes ☒ No Average Number per Day 0	☐ Yes ☐ No

Submission Information - *This information is used for administrative purposes and is not available on the public website.*

Submitted by _____ Organization _____ Phone _____ Date _____

U. S. DOT CROSSING INVENTORY FORM

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk * denotes an optional field.

A. Revision Date *(MM/DD/YYYY)*	B. Reporting Agency	C. Reason for Update *(Select only one)*	D. DOT Crossing Inventory Number
03 / 19 / 2021	☒ Railroad ☐ Transit ☐ State ☐ Other	☒ Change in Data ☐ New Crossing ☐ Closed ☐ No Train Traffic ☐ Quiet Zone Update ☐ Re-Open ☐ Date Change Only ☐ Change in Primary Operating RR ☐ Admin. Correction	754552X

Part I: Location and Classification Information

1. Primary Operating Railroad	2. State	3. County
Union Pacific Railroad Company [UP]	OREGON	MULTNOMAH

4. City / Municipality	5. Street/Road Name & Block Number	6. Highway Type & No.
☒ In ☐ Near PORTLAND	Southeast Salmon Street *(Street/Road Name)* | * *(Block Number)*	LS

7. Do Other Railroads Operate a Separate Track at Crossing?	8. Do Other Railroads Operate Over Your Track at Crossing?
☐ Yes ☒ No If Yes, Specify RR	☒ Yes ☐ No If Yes, Specify RR ATK, BNSF, PNWR

9. Railroad Division or Region	10. Railroad Subdivision or District	11. Branch or Line Name	12. RR Milepost
☐ None Pacific Northwest	☐ None Brooklyn Sub	☒ None	| 0769.430 | *(prefix) | (nnnn.nnn) | (suffix)*

13. Line Segment *	14. Nearest RR Timetable Station *	15. Parent RR *(if applicable)*	16. Crossing Owner *(if applicable)*
		☒ N/A	☐ N/A UP

17. Crossing Type	18. Crossing Purpose	19. Crossing Position	20. Public Access *(if Private Crossing)*	21. Type of Train	22. Average Passenger Train Count Per Day
☒ Public ☐ Private	☒ Highway ☐ Pathway, Ped. ☐ Station, Ped.	☒ At Grade ☐ RR Under ☐ RR Over	☐ Yes ☐ No	☒ Freight ☐ Transit ☒ Intercity Passenger ☐ Shared Use Transit ☐ Commuter ☐ Tourist/Other	☐ Less Than One Per Day ☒ Number Per Day 6

23. Type of Land Use
☐ Open Space ☐ Farm ☐ Residential ☐ Commercial ☒ Industrial ☐ Institutional ☐ Recreational ☐ RR Yard

24. Is there an Adjacent Crossing with a Separate Number?	25. Quiet Zone *(FRA provided)*
☐ Yes ☒ No If Yes, Provide Crossing Number	☒ No ☐ 24 Hr ☐ Partial ☐ Chicago Excused Date Established

26. HSR Corridor ID	27. Latitude in decimal degrees	28. Longitude in decimal degrees	29. Lat/Long Source
☒ N/A	*(WGS84 std: nn.nnnnnnn)* 45.5143870	*(WGS84 std: -nnn.nnnnnnn)* -122.6648200	☒ Actual ☐ Estimated

30.A. Railroad Use *	31.A. State Use *
30.B. Railroad Use *	31.B. State Use *
30.C. Railroad Use *	31.C. State Use * State Phone# updated - date updated: 2022-10-20
30.D. Railroad Use *	31.D. State Use * C-769.43
32.A. Narrative *(Railroad Use)* *	32.B. Narrative *(State Use)* * QZ CORRECTION.

33. Emergency Notification Telephone No. *(posted)*	34. Railroad Contact *(Telephone No.)*	35. State Contact *(Telephone No.)*
800-848-8715	402-544-3721	541-250-6788

Part II: Railroad Information

1. Estimated Number of Daily Train Movements

1.A. Total Day Thru Trains *(6 AM to 6 PM)*	1.B. Total Night Thru Trains *(6 PM to 6 AM)*	1.C. Total Switching Trains	1.D. Total Transit Trains	1.E. Check if Less Than One Movement Per Day ☐ How many trains per week?
13	12	3	0	

2. Year of Train Count Data *(YYYY)*	3. Speed of Train at Crossing
2020	3.A. Maximum Timetable Speed *(mph)* 35 3.B. Typical Speed Range Over Crossing *(mph)* From 17 to 35

4. Type and Count of Tracks
Main 2 Siding 0 Yard 0 Transit 0 Industry 0

5. Train Detection *(Main Track only)*
☒ Constant Warning Time ☐ Motion Detection ☐AFO ☐ PTC ☐ DC ☐ Other ☐ None

6. Is Track Signaled?	7.A. Event Recorder	7.B. Remote Health Monitoring
☒ Yes ☐ No	☒ Yes ☐ No	☐ Yes ☒ No

U. S. DOT CROSSING INVENTORY FORM

A. Revision Date *(MM/DD/YYYY)*	PAGE 2	D. Crossing Inventory Number *(7 char.)*
03/19/2021		754552X

Part III: Highway or Pathway Traffic Control Device Information

1. Are there Signs or Signals? ☒ Yes ☐ No

2. Types of Passive Traffic Control Devices associated with the Crossing

2.A. Crossbuck Assemblies *(count)*	2.B. STOP Signs *(R1-1)* *(count)*	2.C. YIELD Signs *(R1-2)* *(count)*	2.D. Advance Warning Signs *(Check all that apply; include count)* ☐ None
0	0	0	☒ W10-1 1 ☐ W10-3 ☐ W10-11 ☐ W10-2 ☐ W10-4 ☐ W10-12

2.E. Low Ground Clearance Sign *(W10-5)*	2.F. Pavement Markings	2.G. Channelization Devices/Medians	2.H. EXEMPT Sign *(R15-3)*	2.I. ENS Sign *(I-13)* Displayed
☐ Yes *(count)* ☒ No	☒ Stop Lines ☐ Dynamic Envelope ☒ RR Xing Symbols ☐ None	☐ All Approaches ☐ Median ☐ One Approach ☒ None	☐ Yes ☒ No	☒ Yes ☐ No

2.J. Other MUTCD Signs ☒ Yes ☐ No	2.K. Private Crossing Signs *(if private)*	2.L. LED Enhanced Signs *(List types)*
Specify Type ___ Count ___ Specify Type ___ Count ___ Specify Type ___ Count ___	☐ Yes ☐ No	

3. Types of Train Activated Warning Devices at the Grade Crossing *(specify count of each device for all that apply)*

3.A. Gate Arms *(count)*	3.B. Gate Configuration	3.C. Cantilevered *(or Bridged)* Flashing Light Structures *(count)*	3.D. Mast Mounted Flashing Lights *(count of masts)* 2	3.E. Total Count of Flashing Light Pairs
Roadway 2 Pedestrian 0	☒ 2 Quad ☐ Full *(Barrier)* Resistance ☐ 3 Quad ☐ 4 Quad ☐ Median Gates	Over Traffic Lane 0 ☐ Incandescent Not Over Traffic Lane 0 ☐ LED	☐ Incandescent ☒ LED ☒ Back Lights Included ☐ Side Lights Included	4

3.F. Installation Date of Current Active Warning Devices: *(MM/YYYY)*	3.G. Wayside Horn	3.H. Highway Traffic Signals Controlling Crossing	3.I. Bells *(count)*
___/___ ☒ Not Required	☐ Yes Installed on *(MM/YYYY)* ___/___ ☒ No	☐ Yes ☒ No	2

3.J. Non-Train Active Warning	3.K. Other Flashing Lights or Warning Devices
☐ Flagging/Flagman ☐ Manually Operated Signals ☐ Watchman ☐ Floodlighting ☒ None	Count 0 Specify type ___

4.A. Does nearby Hwy Intersection have Traffic Signals?	4.B. Hwy Traffic Signal Interconnection	4.C. Hwy Traffic Signal Preemption	5. Highway Traffic Pre-Signals	6. Highway Monitoring Devices *(Check all that apply)*
☐ Yes ☒ No	☒ Not Interconnected ☐ For Traffic Signals ☐ For Warning Signs	☐ Simultaneous ☐ Advance	☐ Yes ☒ No Storage Distance * ___ Stop Line Distance * ___	☐ Yes - Photo/Video Recording ☐ Yes – Vehicle Presence Detection ☒ None

Part IV: Physical Characteristics

1. Traffic Lanes Crossing Railroad	2. Is Roadway/Pathway Paved?	3. Does Track Run Down a Street?	4. Is Crossing Illuminated? *(Street lights within approx. 50 feet from nearest rail)*
☐ One-way Traffic ☒ Two-way Traffic ☐ Divided Traffic Number of Lanes 2	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No

5. Crossing Surface *(on Main Track, multiple types allowed)* Installation Date * *(MM/YYYY)* ___/___ Width * ___ Length * ___
☐ 1 Timber ☐ 2 Asphalt ☐ 3 Asphalt and Timber ☒ 4 Concrete ☐ 5 Concrete and Rubber ☐ 6 Rubber ☐ 7 Metal
☐ 8 Unconsolidated ☐ 9 Composite ☐ 10 Other *(specify)* ___

6. Intersecting Roadway within 500 feet?	7. Smallest Crossing Angle	8. Is Commercial Power Available? *
☒ Yes ☐ No If Yes, Approximate Distance *(feet)* ___	☐ 0° – 29° ☐ 30° – 59° ☒ 60° - 90°	☒ Yes ☐ No

Part V: Public Highway Information

1. Highway System	2. Functional Classification of Road at Crossing	3. Is Crossing on State Highway System?	4. Highway Speed Limit
☐ (01) Interstate Highway System ☐ (02) Other Nat Hwy System (NHS) ☐ (03) Federal AID, Not NHS ☒ (08) Non-Federal Aid	☐ (0) Rural ☒ (1) Urban ☐ (1) Interstate ☐ (5) Major Collector ☐ (2) Other Freeways and Expressways ☐ (3) Other Principal Arterial ☐ (6) Minor Collector ☐ (4) Minor Arterial ☒ (7) Local	☐ Yes ☒ No	___ MPH ☐ Posted ☐ Statutory

5. Linear Referencing System *(LRS Route ID)* *

6. LRS Milepost *

7. Annual Average Daily Traffic *(AADT)*	8. Estimated Percent Trucks	9. Regularly Used by School Buses?	10. Emergency Services Route
Year 1988 AADT 500	40 %	☐ Yes ☒ No Average Number per Day ___	☐ Yes ☐ No

Submission Information - *This information is used for administrative purposes and is not available on the public website.*

Submitted by ___ Organization ___ Phone ___ Date ___

U. S. DOT CROSSING INVENTORY FORM

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk * denotes an optional field.

A. Revision Date *(MM/DD/YYYY)*	B. Reporting Agency	C. Reason for Update *(Select only one)*	D. DOT Crossing Inventory Number
03 / 19 / 2021	☒ Railroad ☐ Transit ☐ State ☐ Other	☒ Change in Data ☐ New Crossing ☐ Closed ☐ No Train Traffic ☐ Quiet Zone Update ☐ Re-Open ☐ Date Change Only ☐ Change in Primary Operating RR ☐ Admin. Correction	754550J

Part I: Location and Classification Information

1. Primary Operating Railroad	2. State	3. County
Union Pacific Railroad Company [UP]	OREGON	MULTNOMAH

4. City / Municipality	5. Street/Road Name & Block Number	6. Highway Type & No.
☒ In ☐ Near PORTLAND	SOUTHEAST YAMHILL STREET *(Street/Road Name)* | * *(Block Number)*	CITY

7. Do Other Railroads Operate a Separate Track at Crossing?	8. Do Other Railroads Operate Over Your Track at Crossing?
☐ Yes ☒ No If Yes, Specify RR	☒ Yes ☐ No If Yes, Specify RR ATK, BNSF, PNWR

9. Railroad Division or Region	10. Railroad Subdivision or District	11. Branch or Line Name	12. RR Milepost
☐ None Pacific Northwest	☐ None Brooklyn Sub	☒ None	| 0769.510 | *(prefix) | (nnnn.nnn) | (suffix)*

13. Line Segment *	14. Nearest RR Timetable Station *	15. Parent RR *(if applicable)*	16. Crossing Owner *(if applicable)*
		☒ N/A	☐ N/A UP

17. Crossing Type	18. Crossing Purpose	19. Crossing Position	20. Public Access *(if Private Crossing)*	21. Type of Train	22. Average Passenger Train Count Per Day
☒ Public ☐ Private	☒ Highway ☐ Pathway, Ped. ☐ Station, Ped.	☒ At Grade ☐ RR Under ☐ RR Over	☐ Yes ☐ No	☒ Freight ☐ Transit ☒ Intercity Passenger ☐ Shared Use Transit ☐ Commuter ☐ Tourist/Other	☐ Less Than One Per Day ☒ Number Per Day 6

23. Type of Land Use
☐ Open Space ☐ Farm ☐ Residential ☐ Commercial ☒ Industrial ☐ Institutional ☐ Recreational ☐ RR Yard

24. Is there an Adjacent Crossing with a Separate Number?	25. Quiet Zone *(FRA provided)*
☐ Yes ☒ No If Yes, Provide Crossing Number	☒ No ☐ 24 Hr ☐ Partial ☐ Chicago Excused Date Established

26. HSR Corridor ID	27. Latitude in decimal degrees	28. Longitude in decimal degrees	29. Lat/Long Source
☒ N/A	*(WGS84 std: nn.nnnnnnn)* 45.5157293	*(WGS84 std: -nnn.nnnnnnn)* -122.6648666	☒ Actual ☐ Estimated

30.A. Railroad Use *	31.A. State Use *
30.B. Railroad Use *	31.B. State Use *
30.C. Railroad Use *	31.C. State Use * State Phone# updated - date updated: 2018-08-31
30.D. Railroad Use *	31.D. State Use * C-769.53
32.A. Narrative *(Railroad Use)* *	32.B. Narrative *(State Use)* * qz correction.

33. Emergency Notification Telephone No. *(posted)*	34. Railroad Contact *(Telephone No.)*	35. State Contact *(Telephone No.)*
800-848-8715	402-544-3721	509-986-4273

Part II: Railroad Information

1. Estimated Number of Daily Train Movements

1.A. Total Day Thru Trains *(6 AM to 6 PM)*	1.B. Total Night Thru Trains *(6 PM to 6 AM)*	1.C. Total Switching Trains	1.D. Total Transit Trains	1.E. Check if Less Than One Movement Per Day ☐ How many trains per week?
13	12	3	0	

2. Year of Train Count Data *(YYYY)*	3. Speed of Train at Crossing
2020	3.A. Maximum Timetable Speed *(mph)* 35 3.B. Typical Speed Range Over Crossing *(mph)* From 17 to 35

4. Type and Count of Tracks
Main 2 Siding 0 Yard 0 Transit 0 Industry 0

5. Train Detection *(Main Track only)*
☒ Constant Warning Time ☐ Motion Detection ☐AFO ☐ PTC ☐ DC ☐ Other ☐ None

6. Is Track Signaled?	7.A. Event Recorder	7.B. Remote Health Monitoring
☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☒ No

U. S. DOT CROSSING INVENTORY FORM

A. Revision Date *(MM/DD/YYYY)*	PAGE 2	D. Crossing Inventory Number *(7 char.)*
03/19/2021		754550J

Part III: Highway or Pathway Traffic Control Device Information

1. Are there Signs or Signals? ☒ Yes ☐ No

2. Types of Passive Traffic Control Devices associated with the Crossing

2.A. Crossbuck Assemblies *(count)*	2.B. STOP Signs *(R1-1)* *(count)*	2.C. YIELD Signs *(R1-2)* *(count)*	2.D. Advance Warning Signs *(Check all that apply; include count)* ☐ None
0	0	0	☒ W10-1 2 ☐ W10-3 ☐ W10-11 ☐ W10-2 ☐ W10-4 ☐ W10-12

2.E. Low Ground Clearance Sign *(W10-5)*	2.F. Pavement Markings	2.G. Channelization Devices/Medians	2.H. EXEMPT Sign *(R15-3)*	2.I. ENS Sign *(I-13)* Displayed
☐ Yes *(count_____)* ☒ No	☒ Stop Lines ☐ Dynamic Envelope ☒ RR Xing Symbols ☐ None	☐ All Approaches ☐ Median ☐ One Approach ☒ None	☐ Yes ☒ No	☒ Yes ☐ No

2.J. Other MUTCD Signs ☒ Yes ☐ No	2.K. Private Crossing Signs *(if private)*	2.L. LED Enhanced Signs *(List types)*
Specify Type _____ Count _____ Specify Type _____ Count _____ Specify Type _____ Count _____	☐ Yes ☐ No	

3. Types of Train Activated Warning Devices at the Grade Crossing *(specify count of each device for all that apply)*

3.A. Gate Arms *(count)*	3.B. Gate Configuration	3.C. Cantilevered *(or Bridged)* Flashing Light Structures *(count)*	3.D. Mast Mounted Flashing Lights *(count of masts)* 2	3.E. Total Count of Flashing Light Pairs
Roadway 2 Pedestrian _____	☒ 2 Quad ☐ Full *(Barrier)* Resistance ☐ 3 Quad ☐ 4 Quad ☐ Median Gates	Over Traffic Lane 0 ☐ Incandescent Not Over Traffic Lane 0 ☐ LED	☐ Incandescent ☒ LED ☒ Back Lights Included ☐ Side Lights Included	4

3.F. Installation Date of Current Active Warning Devices: *(MM/YYYY)*	3.G. Wayside Horn	3.H. Highway Traffic Signals Controlling Crossing	3.I. Bells *(count)*
_____/_____ ☒ Not Required	☐ Yes Installed on *(MM/YYYY)* _____/_____ ☒ No	☐ Yes ☒ No	2

3.J. Non-Train Active Warning	3.K. Other Flashing Lights or Warning Devices
☐ Flagging/Flagman ☐ Manually Operated Signals ☐ Watchman ☐ Floodlighting ☐ None	Count 0 Specify type _____

4.A. Does nearby Hwy Intersection have Traffic Signals?	4.B. Hwy Traffic Signal Interconnection	4.C. Hwy Traffic Signal Preemption	5. Highway Traffic Pre-Signals	6. Highway Monitoring Devices *(Check all that apply)*
☐ Yes ☐ No	☐ Not Interconnected ☐ For Traffic Signals ☐ For Warning Signs	☐ Simultaneous ☐ Advance	☐ Yes ☒ No Storage Distance * _____ Stop Line Distance * _____	☐ Yes - Photo/Video Recording ☐ Yes – Vehicle Presence Detection ☐ None

Part IV: Physical Characteristics

1. Traffic Lanes Crossing Railroad	2. Is Roadway/Pathway Paved?	3. Does Track Run Down a Street?	4. Is Crossing Illuminated? *(Street lights within approx. 50 feet from nearest rail)*
☐ One-way Traffic ☒ Two-way Traffic ☐ Divided Traffic Number of Lanes 2	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No

5. Crossing Surface *(on Main Track, multiple types allowed)* Installation Date * *(MM/YYYY)* _____/_____ Width * _____ Length * 60

☐ 1 Timber ☐ 2 Asphalt ☐ 3 Asphalt and Timber ☒ 4 Concrete ☐ 5 Concrete and Rubber ☐ 6 Rubber ☐ 7 Metal
☐ 8 Unconsolidated ☐ 9 Composite ☐ 10 Other *(specify)* _____

6. Intersecting Roadway within 500 feet?	7. Smallest Crossing Angle	8. Is Commercial Power Available? *
☒ Yes ☐ No If Yes, Approximate Distance *(feet)* _____	☐ 0° – 29° ☐ 30° – 59° ☒ 60° - 90°	☒ Yes ☐ No

Part V: Public Highway Information

1. Highway System	2. Functional Classification of Road at Crossing	3. Is Crossing on State Highway System?	4. Highway Speed Limit
☐ (01) Interstate Highway System ☐ (02) Other Nat Hwy System (NHS) ☐ (03) Federal AID, Not NHS ☒ (08) Non-Federal Aid	☐ (0) Rural ☒ (1) Urban ☐ (1) Interstate ☐ (5) Major Collector ☐ (2) Other Freeways and Expressways ☐ (3) Other Principal Arterial ☐ (6) Minor Collector ☐ (4) Minor Arterial ☒ (7) Local	☐ Yes ☒ No	_____ MPH ☐ Posted ☐ Statutory

5. Linear Referencing System *(LRS Route ID)* *

6. LRS Milepost *

7. Annual Average Daily Traffic *(AADT)*	8. Estimated Percent Trucks	9. Regularly Used by School Buses?	10. Emergency Services Route
Year 1988 AADT 2600	40 %	☐ Yes ☒ No Average Number per Day _____	☐ Yes ☐ No

Submission Information - *This information is used for administrative purposes and is not available on the public website.*

Submitted by _____ Organization _____ Phone _____ Date _____

U. S. DOT CROSSING INVENTORY FORM

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk * denotes an optional field.

A. Revision Date (MM/DD/YYYY)	B. Reporting Agency	C. Reason for Update (Select only one)	D. DOT Crossing Inventory Number
03 / 19 / 2021	☒ Railroad ☐ Transit ☐ State ☐ Other	☒ Change in Data ☐ New Crossing ☐ Closed ☐ No Train Traffic ☐ Quiet Zone Update ☐ Re-Open ☐ Date Change Only ☐ Change in Primary Operating RR ☐ Admin. Correction	754542S

Part I: Location and Classification Information

1. Primary Operating Railroad	2. State	3. County
Union Pacific Railroad Company [UP]	OREGON	MULTNOMAH

4. City / Municipality	5. Street/Road Name & Block Number	6. Highway Type & No.
☒ In ☐ Near PORTLAND	Southeast Stark Street (Street/Road Name) | * (Block Number)	LS

7. Do Other Railroads Operate a Separate Track at Crossing?	8. Do Other Railroads Operate Over Your Track at Crossing?
☐ Yes ☒ No If Yes, Specify RR	☒ Yes ☐ No If Yes, Specify RR ATK, BNSF, PNWR

9. Railroad Division or Region	10. Railroad Subdivision or District	11. Branch or Line Name	12. RR Milepost
☐ None Pacific Northwest	☐ None Brooklyn Sub	☒ None	(prefix) | 0769.780 (nnnn.nnn) | (suffix)

13. Line Segment *	14. Nearest RR Timetable Station *	15. Parent RR (if applicable)	16. Crossing Owner (if applicable)
		☒ N/A	☐ N/A UP

17. Crossing Type	18. Crossing Purpose	19. Crossing Position	20. Public Access (if Private Crossing)	21. Type of Train	22. Average Passenger Train Count Per Day
☒ Public ☐ Private	☒ Highway ☐ Pathway, Ped. ☐ Station, Ped.	☒ At Grade ☐ RR Under ☐ RR Over	☐ Yes ☐ No	☒ Freight ☒ Intercity Passenger ☐ Commuter ☐ Transit ☐ Shared Use Transit ☐ Tourist/Other	☐ Less Than One Per Day ☒ Number Per Day 6

23. Type of Land Use
☐ Open Space ☐ Farm ☐ Residential ☐ Commercial ☒ Industrial ☐ Institutional ☐ Recreational ☐ RR Yard

24. Is there an Adjacent Crossing with a Separate Number?	25. Quiet Zone (FRA provided)
☐ Yes ☒ No If Yes, Provide Crossing Number	☒ No ☐ 24 Hr ☐ Partial ☐ Chicago Excused Date Established

26. HSR Corridor ID	27. Latitude in decimal degrees	28. Longitude in decimal degrees	29. Lat/Long Source
☒ N/A	(WGS84 std: nn.nnnnnnn) 45.5193913	(WGS84 std: -nnn.nnnnnnn) -122.6648742	☒ Actual ☐ Estimated

30.A. Railroad Use *	31.A. State Use *
30.B. Railroad Use *	31.B. State Use *
30.C. Railroad Use *	31.C. State Use * State Phone# updated - date updated: 2022-10-20
30.D. Railroad Use *	31.D. State Use * C-769.78
32.A. Narrative (Railroad Use) *	32.B. Narrative (State Use) * QZ CORRECTION

33. Emergency Notification Telephone No. (posted)	34. Railroad Contact (Telephone No.)	35. State Contact (Telephone No.)
800-848-8715	402-544-3721	541-250-6788

Part II: Railroad Information

1. Estimated Number of Daily Train Movements

1.A. Total Day Thru Trains (6 AM to 6 PM)	1.B. Total Night Thru Trains (6 PM to 6 AM)	1.C. Total Switching Trains	1.D. Total Transit Trains	1.E. Check if Less Than One Movement Per Day ☐ How many trains per week?
13	12	0	0	

2. Year of Train Count Data (YYYY)	3. Speed of Train at Crossing
2020	3.A. Maximum Timetable Speed (mph) 35 3.B. Typical Speed Range Over Crossing (mph) From 17 to 35

4. Type and Count of Tracks
Main 2 Siding 0 Yard 0 Transit 0 Industry 0

5. Train Detection (Main Track only)
☒ Constant Warning Time ☐ Motion Detection ☐AFO ☐ PTC ☐ DC ☐ Other ☐ None

6. Is Track Signaled?	7.A. Event Recorder	7.B. Remote Health Monitoring
☒ Yes ☐ No	☒ Yes ☐ No	☐ Yes ☒ No

U. S. DOT CROSSING INVENTORY FORM

A. Revision Date *(MM/DD/YYYY)*	PAGE 2	D. Crossing Inventory Number *(7 char.)*
03/19/2021		754542S

Part III: Highway or Pathway Traffic Control Device Information

1. Are there Signs or Signals? ☒ Yes ☐ No

2. Types of Passive Traffic Control Devices associated with the Crossing

2.A. Crossbuck Assemblies *(count)*	2.B. STOP Signs *(R1-1)* *(count)*	2.C. YIELD Signs *(R1-2)* *(count)*	2.D. Advance Warning Signs *(Check all that apply; include count)* ☐ None
0	0	0	☒ W10-1 2 ☐ W10-3 ☐ W10-11 ☐ W10-2 ☐ W10-4 ☐ W10-12

2.E. Low Ground Clearance Sign *(W10-5)*	2.F. Pavement Markings	2.G. Channelization Devices/Medians	2.H. EXEMPT Sign *(R15-3)*	2.I. ENS Sign *(I-13)* Displayed
☐ Yes *(count_____)* ☒ No	☒ Stop Lines ☐ Dynamic Envelope ☒ RR Xing Symbols ☐ None	☐ All Approaches ☐ Median ☐ One Approach ☒ None	☐ Yes ☒ No	☒ Yes ☐ No

2.J. Other MUTCD Signs ☒ Yes ☐ No	2.K. Private Crossing Signs *(if private)*	2.L. LED Enhanced Signs *(List types)*
Specify Type _____ Count _____ Specify Type _____ Count _____ Specify Type _____ Count _____	☐ Yes ☐ No	

3. Types of Train Activated Warning Devices at the Grade Crossing *(specify count of each device for all that apply)*

3.A. Gate Arms *(count)*	3.B. Gate Configuration	3.C. Cantilevered *(or Bridged)* Flashing Light Structures *(count)*	3.D. Mast Mounted Flashing Lights *(count of masts)* 2	3.E. Total Count of Flashing Light Pairs
Roadway 2 Pedestrian 0	☒ 2 Quad ☐ Full *(Barrier)* Resistance ☐ 3 Quad ☐ 4 Quad ☐ Median Gates	Over Traffic Lane 0 ☐ Incandescent Not Over Traffic Lane 0 ☐ LED	☐ Incandescent ☒ LED ☒ Back Lights Included ☐ Side Lights Included	4

3.F. Installation Date of Current Active Warning Devices: *(MM/YYYY)*	3.G. Wayside Horn	3.H. Highway Traffic Signals Controlling Crossing	3.I. Bells *(count)*
_____/_____ ☒ Not Required	☐ Yes Installed on *(MM/YYYY)* _____/_____ ☒ No	☐ Yes ☒ No	2

3.J. Non-Train Active Warning	3.K. Other Flashing Lights or Warning Devices
☐ Flagging/Flagman ☐ Manually Operated Signals ☐ Watchman ☐ Floodlighting ☒ None	Count 0 Specify type _____

4.A. Does nearby Hwy Intersection have Traffic Signals?	4.B. Hwy Traffic Signal Interconnection	4.C. Hwy Traffic Signal Preemption	5. Highway Traffic Pre-Signals	6. Highway Monitoring Devices *(Check all that apply)*
☐ Yes ☒ No	☒ Not Interconnected ☐ For Traffic Signals ☐ For Warning Signs	☐ Simultaneous ☐ Advance	☐ Yes ☒ No Storage Distance * _____ Stop Line Distance * _____	☐ Yes - Photo/Video Recording ☐ Yes – Vehicle Presence Detection ☒ None

Part IV: Physical Characteristics

1. Traffic Lanes Crossing Railroad	2. Is Roadway/Pathway Paved?	3. Does Track Run Down a Street?	4. Is Crossing Illuminated? *(Street lights within approx. 50 feet from nearest rail)*
☐ One-way Traffic ☒ Two-way Traffic Number of Lanes 2 ☐ Divided Traffic	☒ Yes ☐ No	☐ Yes ☒ No	☐ Yes ☒ No

5. Crossing Surface *(on Main Track, multiple types allowed)* Installation Date * *(MM/YYYY)* _____/_____ Width * _____ Length * _____
☐ 1 Timber ☐ 2 Asphalt ☐ 3 Asphalt and Timber ☒ 4 Concrete ☐ 5 Concrete and Rubber ☐ 6 Rubber ☐ 7 Metal
☐ 8 Unconsolidated ☐ 9 Composite ☐ 10 Other *(specify)* _____

6. Intersecting Roadway within 500 feet?	7. Smallest Crossing Angle	8. Is Commercial Power Available? *
☒ Yes ☐ No If Yes, Approximate Distance *(feet)* _____	☐ 0° – 29° ☐ 30° – 59° ☒ 60° - 90°	☒ Yes ☐ No

Part V: Public Highway Information

1. Highway System	2. Functional Classification of Road at Crossing	3. Is Crossing on State Highway System?	4. Highway Speed Limit
☐ (01) Interstate Highway System ☒ (02) Other Nat Hwy System (NHS) ☐ (03) Federal AID, Not NHS ☐ (08) Non-Federal Aid	☐ (0) Rural ☒ (1) Urban ☐ (1) Interstate ☒ (5) Major Collector ☐ (2) Other Freeways and Expressways ☐ (3) Other Principal Arterial ☐ (6) Minor Collector ☐ (4) Minor Arterial ☐ (7) Local	☐ Yes ☒ No	_____ MPH ☐ Posted ☐ Statutory

5. Linear Referencing System *(LRS Route ID)* *

6. LRS Milepost *

7. Annual Average Daily Traffic *(AADT)*	8. Estimated Percent Trucks	9. Regularly Used by School Buses?	10. Emergency Services Route
Year 2003 AADT 5223	30 %	☐ Yes ☒ No Average Number per Day _____	☐ Yes ☐ No

Submission Information - *This information is used for administrative purposes and is not available on the public website.*

Submitted by _____ Organization _____ Phone _____ Date _____

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION (FRA)

HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

1.Name of Reporting Railroad: Amtrak (National Railroad Passenger Corporation) [ATK]	1a. Alphabetic Code: ATK	1b. Railroad Accident/Incident No.: 164255
2.Name of Other Railroad or Other Entity Filling for Equipment Involved in Train Accident/Incident	2a. Alphabetic Code	2b. Railroad Accident/Incident No.
3. Name of Railroad or Other Entity Responsible for Track Maintenance *(single entry)*: Union Pacific Railroad Company [UP]	3a. Alphabetic Code: UP	3b. Railroad Accident/Incident No.: XXX
4. U.S. DOT Grade Crossing ID No.: 754559V	5. Date of Accident/Incident (month/day/year): 04/24/2020	6. Time of Accident/Incident: 8:11 AM ☑ PM ☐
7. Nearest Railroad Station: PORTLAND	8. Subdivision: BROOKLYN	9. County: MULTNOMAH
10. State: Abbr. OR — Code: 41		
11. City *(if in a city)*: PORTLAND	12. Highway Name or No.: SE CLAY ST	Public ☑ Private ☐

Highway User Involved

13. Type — Code: K
C. Truck-trailer; F. Bus; J. Other Motor Vehicle; A. Auto; D. Pick-up truck; G. School Bus; K. Pedestrian; B. Truck; E. Van; H. Motorcycle; M. Other *(specify)*

14. Vehicle Speed *(est. mph at impact)*:

15. Direction *(geographical)* — Code: 4
1. North 2. South 3. East 4. West

16. Position — Code: 3
1. Stalled or stuck on crossing; 2. Stopped on Crossing; 3. Moving over crossing; 4. Trapped on crossing by traffic; 5. Blocked on crossing by gates

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — Code: 4
1. Highway User 2. Rail Equipment 3. Both 4. Neither

Rail Equipment Involved

17. Equipment — Code: 1
1. Train *(units pulling)*; 2. Train *(units pushing)*; 3. Train *(standing)*; 4. Car(s) *(moving)*; 5. Car(s) *(standing)*; 6. Light loco(s) *(moving)*; 7. Light loco(s) *(standing)*; 8. Other *(specify)*; A. Train pulling- RCL; B. Train pushing- RCL; C. Train standing- RCL; D. EMU Locomotive(s); E. DMU Locomotive(s)

18. Position of Car Unit in Train: 1

19. Circumstance — Code: 1
1. Rail equipment struck highway user 2. Rail equipment struck by highway user

20b. Was there a hazardous materials release by — Code: 4
1. Highway User 2. Rail Equipment 3. Both 4. Neither

20c. State here the name and quantity of the hazardous material released, if any:

21. Temperature *(specify if minus)*: 52 °F

22. Visibility *(single entry)* — Code: 2
1. Dawn 2. Day 3. Dusk 4. Dark

23. Weather *(single entry)* — Code: 2
1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow

24. Type of Equipment Consist *(single entry)* — Code: 2
1. Freight Train; 2. Passenger Train-Pulling; 3. Commuter Train-Pulling; 4. Work Train; 5. Single Car; 6. Cut of cars; 7. Yard/Switching; 8. Light loco(s); 9. Maint./inspect. car; A. Spec. MoW Equip.; B. Passenger Train-Pushing; C. Commuter Train-Pushing; D. EMU; E. DMU

25. Track Type Used by Rail Equipment Involved — Code: 1
1. Main 2. Yard 3. Siding 4. Industry

26. Track Number or Name: MAIN 1

27. FRA Track Class (1-9,X): 5

28. Number of Locomotive Units: 1

29. Number of Cars: 12

30. Consist Speed *(Recorded speed if available)* — Code: R
R. Recorded; E. Estimated: 34 mph

31. Time Table Direction — Code: 2
1. North 3. East 2. South 4. West

32. Type of Crossing Warning
1. Gates; 2. Cantilever FLS; 3. Standard FLS; 4. Wig wags; 5. Hwy. traffic signals; 6. Audible; 7. Crossbucks; 8. Stop signs; 9. Watchman; 10. Flagged by crew; 11. Other *(specify)*; 12. None

Code(s): 01 | 02 | 03 | 06 | 07

33. Signaled Crossing Warning (See reverse side for instructions and codes) — Code: 1

34. Roadway Conditions — Code: A
A. Dry; B. Wet; C.Snow/Slush; D.Ice; E. Sand,Mud,Dirt,Oil,Gravel; F.Water (Standing, Moving)

35. Location of Warning — Code: 1
1. Both Sides; 2. Side of Vehicle Approach; 3. Opposite Side of Vehicle Approach

36. Crossing Warning Interconnected with Highway Signals — Code: 2
1. Yes 2. No 3. Unknown

37. Crossing Illuminated by Street Lights or Special Lights — Code: 2
1. Yes 2. No 3. Unknown

38. Highway User's Age: 75

39. Highway User's Gender — Code: 2
1. Male 2. Female

40. Highway User Went Behind or in Front of Train and Struck or was Struck by Second Train — Code: 2
1. Yes 2. No 3. Unknown

41. Highway User — Code: 1
1. Went around the gate; 2. Stopped and then proceeded; 3. Did not stop; 4. Stopped on crossing; 5. Other *(specify)*; 6. Went around/thru temporary barricade (if yes, see instructions); 7. Went thru the gate; 8. Suicide/Attempted suicide

42. Driver Passed Standing Highway Vehicle — Code:
1. Yes 2. No 3. Unknown

43. View of Track Obscured by *(primary obstruction)* — Code: 8
1. Permanent Structure; 2. Standing railroad equipment; 3. Passing Train; 4. Topography; 5. Vegetation; 6. Highway Vehicles; 7. Other (specify); 8. Not Obstructed

Casualties to:	Killed	Injured
46. Highway-Rail Crossing Users	1	0
49. Railroad Employees	0	0
52. Passengers on Train	0	0

44. Driver was: 1. Killed 2. Injured 3. Uninjured

45. Was Driver in the Vehicle? — Code:
1. Yes 2. No

47. Highway Vehicle Property Damage *(est. dollar damage)*: $0

48. Total Number of Vehicle Occupants *(including driver)*: 0

50. Total Number of People on Train *(include passengers and train crew)*: 5

51. Is a Rail Equipment Accident / Incident Report Being Filed — Code: 2
1. Yes 2. No

53a. Special Study Block — Video Taken? ☑ Yes ☐ No; Video Used? ☐ Yes ☑ No

53b. Special Study Block

54. Narrative Description *(Be specific, and continue on separate sheet if necessary)*

TRAIN 500 WITH CAMERA-EQUIPPED LOCOMOTIVE WS/1406 AND 12 CARS STRUCK A PEDESTRIAN AT MP 769.24, SOUTHEAST CLAY ST CROSSING.

55. Typed Name and Title | 56. Signature | 57. Date

NOTE: This report is part of the reporting railroad's accident report pursuant to the accident reports statute and, as such shall not "be admitted as evidence or used for any purpose in any suit or action for damages growing out of any matter mentioned in said report...." 49 U.S.C. 20903. See 49 C.F.R. 225.7 (b).

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION (FRA)

HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

1.Name of Reporting Railroad: Amtrak (National Railroad Passenger Corporation) [ATK]	1a. Alphabetic Code: ATK	1b. Railroad Accident/Incident No.: 172743
2.Name of Other Railroad or Other Entity Filling for Equipment Involved in Train Accident/Incident	2a. Alphabetic Code:	2b. Railroad Accident/Incident No.:
3. Name of Railroad or Other Entity Responsible for Track Maintenance (single entry): Union Pacific Railroad Company [UP]	3a. Alphabetic Code: UP	3b. Railroad Accident/Incident No.: XXX
4. U.S. DOT Grade Crossing ID No.: 754552X	5. Date of Accident/Incident: month 1 | day 1 | year 1 5 2022	6. Time of Accident/Incident: 6:20 AM ☐ PM ☑
7. Nearest Railroad Station: PORTLAND	8. Subdivision: BROOKLYN	9. County: MULTNOMAH
10. State: Abbr. OR — Code: 41		
11. City (if in a city): PORTLAND	12. Highway Name or No.: SE SALMON ST	Public ☑ Private ☐

Highway User Involved

13. Type — C. Truck-trailer; F. Bus; J. Other Motor Vehicle; A. Auto; D. Pick-up truck; G. School Bus; K. Pedestrian; B. Truck; E. Van; H. Motorcycle; M. Other (specify) — Code: K

14. Vehicle Speed (est. mph at impact):

15. Direction (geographical) 1. North 2. South 3. East 4. West — Code: 4

16. Position — 1. Stalled or stuck on crossing; 2. Stopped on Crossing; 3. Moving over crossing; 4. Trapped on crossing by traffic; 5. Blocked on crossing by gates — Code: 3

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: 4

Rail Equipment Involved

17. Equipment — 1. Train (units pulling); 2. Train (units pushing); 3. Train (standing); 4. Car(s) (moving); 5. Car(s) (standing); 6. Light loco(s) (moving); 7. Light loco(s) (standing); 8. Other (specify); A. Train pulling- RCL; B. Train pushing- RCL; C. Train standing- RCL; D. EMU Locomotive(s); E. DMU Locomotive(s) — Code: 2

18. Position of Car Unit in Train: 1

19. Circumstance — 1. Rail equipment struck highway user 2. Rail equipment struck by highway user — Code: 1

20b. Was there a hazardous materials release by 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: 4

20c. State here the name and quantity of the hazardous material released, if any:

21. Temperature (specify if minus): 46 °F

22. Visibility (single entry) 1. Dawn 2. Day 3. Dusk 4. Dark — Code: 4

23. Weather (single entry) 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: 1

24. Type of Equipment Consist (single entry) — 1. Freight Train; 2. Passenger Train-Pulling; 3. Commuter Train-Pulling; 4. Work Train; 5. Single Car; 6. Cut of cars; 7. Yard/Switching; 8. Light loco(s); 9. Maint./inspect. car; A. Spec. MoW Equip.; B. Passenger Train-Pushing; C. Commuter Train-Pushing; D. EMU; E. DMU — Code: B

25. Track Type Used by Rail Equipment Involved 1. Main 2. Yard 3. Siding 4. Industry — Code: 1

26. Track Number or Name: TRACK 1

27. FRA Track Class (1-9,X): 4

28. Number of Locomotive Units: 1

29. Number of Cars: 13

30. Consist Speed (Recorded speed if available) R. Recorded E. Estimated: 35 mph — Code: R

31. Time Table Direction 1. North 2. South 3. East 4. West — Code: 2

32. Type of Crossing Warning — 1. Gates; 2. Cantilever FLS; 3. Standard FLS; 4. Wig wags; 5. Hwy. traffic signals; 6. Audible; 7. Crossbucks; 8. Stop signs; 9. Watchman; 10. Flagged by crew; 11. Other (specify); 12. None

Code(s): 01 03 06 07

33. Signaled Crossing Warning (See reverse side for instructions and codes) — Code: 1

34. Roadway Conditions — A. Dry; B. Wet; C.Snow/Slush; D.Ice; E. Sand,Mud,Dirt,Oil,Gravel; F.Water (Standing, Moving) — Code: A

35. Location of Warning 1. Both Sides 2. Side of Vehicle Approach 3. Opposite Side of Vehicle Approach — Code: 1

36. Crossing Warning Interconnected with Highway Signals 1. Yes 2. No 3. Unknown — Code: 2

37. Crossing Illuminated by Street Lights or Special Lights 1. Yes 2. No 3. Unknown — Code: 2

38. Highway User's Age: 23

39. Highway User's Gender 1. Male 2. Female — Code: 1

40. Highway User Went Behind or in Front of Train and Struck or was Struck by Second Train 1. Yes 2. No 3. Unknown — Code:

41. Highway User 1. Went around the gate; 2. Stopped and then proceeded; 3. Did not stop; 4. Stopped on crossing; 5. Other (specify); 6. Went around/thru temporary barricade (if yes, see instructions); 7. Went thru the gate; 8. Suicide/Attempted suicide — Code: 1

42. Driver Passed Standing Highway Vehicle 1. Yes 2. No 3. Unknown — Code:

43. View of Track Obscured by (primary obstruction) 1. Permanent Structure; 2. Standing railroad equipment; 3. Passing Train; 4. Topography; 5. Vegetation; 6. Highway Vehicles; 7. Other (specify); 8. Not Obstructed — Code: 8

Casualties to:	Killed	Injured
46. Highway-Rail Crossing Users	0	1
49. Railroad Employees	0	0
52. Passengers on Train	0	0

44. Driver was 1. Killed 2. Injured 3. Uninjured

45. Was Driver in the Vehicle? 1. Yes 2. No — Code:

47. Highway Vehicle Property Damage (est. dollar damage): $0

48. Total Number of Vehicle Occupants (including driver): 0

50. Total Number of People on Train (include passengers and train crew): 44

51. Is a Rail Equipment Accident / Incident Report Being Filed 1. Yes 2. No — Code: 2

53a. Special Study Block — Video Taken? ☑ Yes ☐ No; Video Used? ☐ Yes ☑ No

53b. Special Study Block

54. Narrative Description (Be specific, and continue on separate sheet if necessary)

GRADE CROSSING: AT APPROXIMATELY 6:20PM-PT, ON TUESDAY, NOVEMBER 15TH, 2022, TRAIN 505(15), OPERATING SOUTHBOUND ON MAIN TRACK #2 STRUCK A PEDESTRIAN AT SE SALMON STREET IN PORTLAND (DOT 754-552X)MP 769.43THE PEDESTRIAN FLED THE SCENE - EMERGENCY SERVICES LOCATED THE PERSON 2 BLOCKS FROM THE SCENE, MEDICAL CONDITION WAS NOT REPORTED.

55. Typed Name and Title | 56. Signature | 57. Date

NOTE: This report is part of the reporting railroad's accident report pursuant to the accident reports statute and, as such shall not "be admitted as evidence or used for any purpose in any suit or action for damages growing out of any matter mentioned in said report...." 49 U.S.C. 20903. See 49 C.F.R. 225.7 (b).

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION (FRA)

HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

1.Name of Reporting Railroad: Amtrak (National Railroad Passenger Corporation) [ATK]	1a. Alphabetic Code: ATK	1b. Railroad Accident/Incident No.: 165355
2.Name of Other Railroad or Other Entity Filling for Equipment Involved in Train Accident/Incident	2a. Alphabetic Code:	2b. Railroad Accident/Incident No.:
3. Name of Railroad or Other Entity Responsible for Track Maintenance (single entry): Union Pacific Railroad Company [UP]	3a. Alphabetic Code: UP	3b. Railroad Accident/Incident No.: XXX
4. U.S. DOT Grade Crossing ID No.: 754552X	5. Date of Accident/Incident (month/day/year): 09/09/2020	6. Time of Accident/Incident: 7:20 AM ☐ PM ☑
7. Nearest Railroad Station: PORTLAND	8. Subdivision: BROOKLYN	9. County: MULTNOMAH
10. State: Abbr. OR — Code: 41		
11. City (if in a city): PORTLAND	12. Highway Name or No.: SE SALMON ST	Public ☑ Private ☐

Highway User Involved

13. Type — Code: K
C. Truck-trailer; F. Bus; J. Other Motor Vehicle; A. Auto; D. Pick-up truck; G. School Bus; K. Pedestrian; B. Truck; E. Van; H. Motorcycle; M. Other (specify)

14. Vehicle Speed (est. mph at impact): 0

15. Direction (geographical) — Code: 1
1. North 2. South 3. East 4. West

16. Position — Code: 2
1. Stalled or stuck on crossing; 2. Stopped on Crossing; 3. Moving over crossing; 4. Trapped on crossing by traffic; 5. Blocked on crossing by gates

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — Code: 4
1. Highway User 2. Rail Equipment 3. Both 4. Neither

Rail Equipment Involved

17. Equipment — Code: 2
1. Train (units pulling); 2. Train (units pushing); 3. Train (standing); 4. Car(s) (moving); 5. Car(s) (standing); 6. Light loco(s) (moving); 7. Light loco(s) (standing); 8. Other (specify); A. Train pulling- RCL; B. Train pushing- RCL; C. Train standing- RCL; D. EMU Locomotive(s); E. DMU Locomotive(s)

18. Position of Car Unit in Train: 1

19. Circumstance — Code: 1
1. Rail equipment struck highway user 2. Rail equipment struck by highway user

20b. Was there a hazardous materials release by — Code: 4
1. Highway User 2. Rail Equipment 3. Both 4. Neither

20c. State here the name and quantity of the hazardous material released, if any

21. Temperature (specify if minus): 84 °F

22. Visibility (single entry) — Code: 3
1. Dawn 2. Day 3. Dusk 4. Dark

23. Weather (single entry) — Code: 2
1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow

24. Type of Equipment Consist (single entry) — Code: B
1. Freight Train; 2. Passenger Train-Pulling; 3. Commuter Train-Pulling; 4. Work Train; 5. Single Car; 6. Cut of cars; 7. Yard/Switching; 8. Light loco(s); 9. Maint./inspect. car; A. Spec. MoW Equip.; B. Passenger Train-Pushing; C. Commuter Train-Pushing; D. EMU; E. DMU

25. Track Type Used by Rail Equipment Involved — Code: 1
1. Main 2. Yard 3. Siding 4. Industry

26. Track Number or Name: MAIN TRACK 1

27. FRA Track Class (1-9,X): 3

28. Number of Locomotive Units: 1

29. Number of Cars: 6

30. Consist Speed (Recorded speed if available) — Code: R
R. Recorded; E. Estimated: 33 mph

31. Time Table Direction — Code: 2
1. North 3. East 2. South 4. West

32. Type of Crossing Warning — Code(s): 01 03 06 07
1. Gates; 2. Cantilever FLS; 3. Standard FLS; 4. Wig wags; 5. Hwy. traffic signals; 6. Audible; 7. Crossbucks; 8. Stop signs; 9. Watchman; 10. Flagged by crew; 11. Other (specify); 12. None

33. Signaled Crossing Warning (See reverse side for instructions and codes) — Code: 1

34. Roadway Conditions — Code: A
A. Dry; B. Wet; C.Snow/Slush; D.Ice; E. Sand,Mud,Dirt,Oil,Gravel; F.Water (Standing, Moving)

35. Location of Warning — Code: 1
1. Both Sides; 2. Side of Vehicle Approach; 3. Opposite Side of Vehicle Approach

36. Crossing Warning Interconnected with Highway Signals — Code: 2
1. Yes 2. No 3. Unknown

37. Crossing Illuminated by Street Lights or Special Lights — Code: 2
1. Yes 2. No 3. Unknown

38. Highway User's Age: 44

39. Highway User's Gender — Code: 2
1. Male 2. Female

40. Highway User Went Behind or in Front of Train and Struck or was Struck by Second Train — Code: 2
1. Yes 2. No 3. Unknown

41. Highway User — Code: 8
1. Went around the gate; 2. Stopped and then proceeded; 3. Did not stop; 4. Stopped on crossing; 5. Other (specify); 6. Went around/thru temporary barricade (if yes, see instructions); 7. Went thru the gate; 8. Suicide/Attempted suicide

42. Driver Passed Standing Highway Vehicle — Code:
1. Yes 2. No 3. Unknown

43. View of Track Obscured by (primary obstruction) — Code: 8
1. Permanent Structure; 2. Standing railroad equipment; 3. Passing Train; 4. Topography; 5. Vegetation; 6. Highway Vehicles; 7. Other (specify); 8. Not Obstructed

Casualties to:	Killed	Injured
46. Highway-Rail Crossing Users	1	0
49. Railroad Employees	0	0
52. Passengers on Train	0	0

44. Driver was: 1. Killed 2. Injured 3. Uninjured

45. Was Driver in the Vehicle? — Code:
1. Yes 2. No

47. Highway Vehicle Property Damage (est. dollar damage): $0

48. Total Number of Vehicle Occupants (including driver): 0

50. Total Number of People on Train (include passengers and train crew): 22

51. Is a Rail Equipment Accident / Incident Report Being Filed — Code: 2
1. Yes 2. No

53a. Special Study Block — Video Taken? ☑ Yes ☐ No; Video Used? ☐ Yes ☑ No

53b. Special Study Block

54. Narrative Description (Be specific, and continue on separate sheet if necessary)
GRADE CROSSING: TRAIN 505(09) OPERATING WITH CAB CAR/90253 AND 5 CARS STRUCK AND FATALLY INJURED A PEDESTRIAN AT SE SALMON STREET IN EAST PORTLAND.

55. Typed Name and Title	56. Signature	57. Date

NOTE: This report is part of the reporting railroad's accident report pursuant to the accident reports statute and, as such shall not "be admitted as evidence or used for any purpose in any suit or action for damages growing out of any matter mentioned in said report...." 49 U.S.C. 20903. See 49 C.F.R. 225.7 (b).

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION (FRA)

HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

OMB Approval No. 2130-0500

Name Of		Alphabetic Code	RR Accident/Incident No.
1. Reporting Railroad	Union Pacific Railroad Company [UP]	1a. UP	1b. 1298PD011
2. Other Railroad Involved in Train Accident/Incident		2a.	2b.
3. Railroad Responsible for Track Maintenance	Union Pacific Railroad Company [UP]	3a. UP	3b. 1298PD011

4. U.S. DOT-AAR Grade Crossing ID No.	5. Date of Accident/Incident	6. Time of Accident/Incident
754542S	12/09/98	08:55 PM

7. Nearest Railroad Station	8. Division	9. County	10. State Abbr.	Code
PORTLAND	PORTLAND	MULTNOMAH	41	OR

11. City (if in a city)	12. Highway Name or No.	
PORTLAND	STARK STREET	☑ Public ☐ Private

Highway User Involved

13. Type — A. Auto; B. Truck; C. Truck-trailer; D. Pick-up truck; E. Van; F. Bus; G. School Bus; H. Motorcycle; J. Other Motor Vehicle; K. Pedestrian; M. Other (specify) — Code: D

14. Vehicle Speed (est. mph at impact): 5

15. Direction (geographical) — 1. North 2. South 3. East 4. West — Code: 1

16. Position — 1. Stalled on crossing 2. Stopped on Crossing 3. Moving over crossing 4. Trapped — Code: 3

20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: 4

Rail Equipment Involved

17. Equipment — 1. Train (units pulling); 2. Train (units pushing); 3. Train (standing); 4. Car(s) (moving); 5. Car(s) (standing); 6. Light loco(s) (moving); 7. Light loco(s) (standing); 8. Other (specify); A. Train pulling- RCL; B. Train pushing- RCL; C. Train standing- RCL — Code: 1

18. Position of Car Unit in Train: 12

19. Circumstance — 1. Rail equipment struck highway user 2. Rail equipment struck by highway user — Code: 2

20b. Was there a hazardous materials release by — 1. Highway User 2. Rail Equipment 3. Both 4. Neither — Code: 4

20c. State the name and quantity of the hazardous material released, if any

21. Temperature (specify if minus): 40 °F

22. Visibility (single entry) — 1. Dawn 2. Day 3. Dusk 4. Dark — Code: 4

23. Weather (single entry) — 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow — Code: 1

24. Type of Equipment Consist (single entry) — 1. Freight train 2. Passenger train 3. Commuter train 4. Work train 5. Single car 6. Cut of cars 7. Yard/Switching 8. Light loco(s) 9. Main./inspect. car A. Spec. MoW Equip. — Code: 1

25. Track Type Used by Rail Equipment Involved — 1. Main 2. Yard 3. Siding 4. Industry — Code: 1

26. Track Number or Name: EAST MAIN

27. FRA Track Class: 1

28. Number of Locomotive Units: 2

29. Number of Cars: 35

30. Consist Speed (Recorded if available) — R. Recorded E. Estimated: 10 mph — Code: E

31. Time Table Direction — 1. North 2. South 3. East 4. West — Code: 3

32. Type of Crossing Warning — 1. Gates 2. Cantilever FLS 3. Standard FLS 4. Wig wags 5. Hwy. traffic signals 6. Audible 7. Crossbucks 8. Stop signs 9. Watchman 10. Flagged by crew 11. Other (specify) 12. None

Code(s): 01; 08

33. Signaled Crossing Warning: Allgd. warn > 60 sec (2);

34. Whistle Ban — 1. Yes 2. No 3. Unknown — Code: 2

35. Location of Warning — 1. Both Sides 2. Side of Vehicle Approach 3. Opposite Side of Vehicle Approach — Code: 1

36. Crossing Warning Interconnected with Highway Signals — 1. Yes 2. No 3. Unknown — Code: 2

37. Crossing Illuminated by Street Lights or Special Lights — 1. Yes 2. No 3. Unknown — Code: 1

38. Driver's Age: 26

39. Driver's Gender — 1. Male 2. Female — Code: 1

40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train — 1. Yes 2. No 3. Unknown — Code: 2

41. Driver — 1. Drove around or thru the gate 2. Stopped and then proceeded 3. Did not stop 4. Stopped on crossing 5. Other (specify) — Code: 1

42. Driver Passed Standing Highway Vehicle — 1. Yes 2. No 3. Unknown — Code: 2

43. View of Track Obscured by (primary obstruction) — 1. Permanent Structure 2. Standing railroad equipment 3. Passing Train 4. Topography 5. Vegetation 6. Highway Vehicles 7. Other (specify) 8. Not Obstructed — Code: 8

Casualties to:	Killed	Injured
46. Highway-Rail Crossing Users	0	0
49. Railroad Employees	0	0
52. Passengers on Train	0	0

44. Driver was — 1. Killed 2. Injured 3. Uninjured — Code: 3

45. Was Driver in the Vehicle? — 1. Yes 2. No — Code: 1

47. Highway Vehicle Property Damage (est. dollar damage): $1,000

48. Total Number of Highway-Rail Crossing Users (include driver): 1

50. Total Number of People on Train (include passengers and crew): 2

51. Is a Rail Equipment Accident / Incident Report Being Filed — 1. Yes 2. No — Code: 2

53a. Special Study Block

53b. Special Study Block

54. Narrative Description

55. Typed Name and Title	56. Signature	57. Date

FORM FRA F 6180.57

* NOTE THAT ALL CASUALTIES MUST BE REPORTED ON FORM FRA F 6180.55A

SECTION 6: ESTIMATED TRIP GENERATION

Max Attendees	3500		
		Attendees - one way	
	Mode Split	People Trips	Total Trips
Transit	13%	455	455
Walking	2%	70	70
Biking or E-scooter	5%	175	175
Private Vehicles	50%	1750	761
Ride Hailing Vehicles	30%	1050	457
	100%	3500	1917

3.5% bike; 1.5% e-scooter

Ride hail trips enter/exit during both pre and post event peaks

Entering trips
Exiting trips

Sold-Out Event Employees		Shifts	
Venue Staff	150	140 Arrive by 6pm for 5-6 hour shift, depart after 11pm; 10 management staff work daily 10a.m.-7p.m.	
Non-Venue Staff	200		
	350		
		Employees - one way	
	Mode Split	People Trips	Total Trips
Transit	13%	46	46
Walking	2%	7	7
Biking or E-scooter	5%	18	18
Private Vehicles	50%	175	159
Ride Hailing Vehicles	30%	105	95
	100%	350	325

3.5% bike; 1.5% e-scooter

Ride hail trips enter/exit during both pre and post event peaks

Entering trips
Exiting trips

	Attendees			Attendees		
	Pre-event peak- Arrival Trips			Post-event peak- Departure Trips		
	6-7 p.m.	7-8 p.m.	8-9 p.m.	10-11 p.m.	11 p.m. -12 a.m.	12-1 a.m.
Attendee Arrival/Departure Rate	35%	55%	10%	12%	83%	5%
Total People Trips	**1,225**	**1,925**	**350**	**420**	**2,905**	**175**
Transit	159	250	46	55	378	23
Walking	25	39	7	8	58	4
Biking or E-scooter	61	96	18	21	145	9
Private Vehicles	613	963	175	210	1,453	88
Ride Hailing Vehicles	368	578	105	126	872	53
	1,225	**1,925**	**350**	**420**	**2,905**	**175**
Total Attendee Trips						
Transit	159	250	46	55	378	23
Walking	25	39	7	8	58	4
Biking or E-scooter	61	96	18	21	145	9
Private Vehicles	266	418	76	91	632	38
Ride Hailing Vehicles	160	251	46	55	379	23
Total Attendee Trips	**671**	**1,055**	**192**	**230**	**1,591**	**96**

RH trips both in/out for each period

	Employees				Employees		
		Pre-event peak			Post-event peak		
	10-11am	6-7 p.m.	7-8 p.m.	8-9 p.m.	10-11 p.m.	p.m. -12 a.	12-1 a.m.
Arrival Rate Total Ven Employees	10	140					
Departure Rate Total Ven Employees			10			70	70
Non LVN Staff		200					200
Transit	1	44	1	0	0	9	35
Walking	0	7	0	0	0	1	5
Biking or E-scooter	1	17	1	0	0	4	14
Private Vehicles	5	170	5	0	0	35	135
Ride Hailing Vehicles	3	102	3	0	0	21	81
	10	**340**	**10**	**0**	**0**	**70**	**270**
Total Employee Trips							
Transit	1	44	1	0	0	9	35
Walking	0	7	0	0	0	1	5
Biking or E-scooter	1	17	1	0	0	4	14
Private Vehicles	5	155	5	0	0	32	123
Ride Hailing Vehicles	3	93	3	0	0	19	74
Total Attendee Trips	**9**	**315**	**9**	**0**	**0**	**65**	**250**

140
150
400

RH trips both in/out for each period

	Pre-Event Peak Hour (7:00 p.m. – 8:00 p.m.)			Post-Event Peak Hour (11:00 p.m. – 12:00 a.m.)		
	In	Out	Total	In	Out	Total
Attendees Arriving/Departing	1,925	0	1,925	0	2,905	2,905
Employees Arriving/Departing	0	10	10	0	70	70
	1,925	10	1,935	0	2,975	2,975
Total Attendee Trips	**1,055**	**251**	**1,306**	**379**	**1,591**	**1,970**
Transit Trips	*250*	*0*	*250*	*0*	*378*	*378*
Walking Trips	*39*	*0*	*39*	*0*	*58*	*58*
Biking or E-Scooter Trips	*96*	*0*	*96*	*0*	*145*	*145*
Private Vehicle Trips	*418*	*0*	*418*	*0*	*632*	*632*
Ride Hailing Vehicle Trips	*251*	*251*	*502*	*379*	*379*	*758*
Total Employee Trips	**3**	**9**	**12**	**19**	**65**	**84**
Transit Trips	*0*	*1*	*1*	*0*	*9*	*9*
Walking Trips	*0*	*0*	*0*	*0*	*1*	*1*
Biking or E-Scooter Trips	*0*	*1*	*1*	*0*	*4*	*4*
Private Vehicle Trips	*0*	*5*	*5*	*0*	*32*	*32*
Ride Hailing Vehicle Trips	*3*	*3*	*5*	*19*	*19*	*38*
Total Trips (Attendee and Employee)	**1,057**	**260**	**1,318**	**398**	**1,656**	**2,054**
Transit Trips	*250*	*1*	*252*	*0*	*387*	*387*
Walking Trips	*39*	*0*	*39*	*0*	*60*	*60*
Biking or E-Scooter Trips	*96*	*1*	*97*	*0*	*149*	*149*
Private Vehicle Trips	*418*	*5*	*423*	*0*	*663*	*663*
Ride Hailing Vehicle Trips	*254*	*254*	*508*	*398*	*398*	*796*

	People Trips	Total Trips
Transit	501	501
Walking	77	77
Biking	135	135
E-scooter	58	58
Private Vehicles	1925	920
Ride Hailing Vehicles	1155	552
	3850	2242
Non-Vehicular	**770**	**770**
Vehicular	**3,080**	**1,472**

	People Trips		
	Attendees	**Employees**	**Att+Emp**
Biking	123	12	135
E-scooter	53	5	58
Biking + E-scooter	**175**	**18**	**193**

bike parking	135
Attendees	123
Employees	12

	Pre-Event Peak Hour			Post-Event Peak Hour		
	In	Out	Total	In	Out	Total
bike (3.5%)	67	0	68	0	104	104
e-scooter (1.5%)	29	0	29	0	45	45
	96	1	97	0	149	149

SECTION 7: ESTIMATED VEHICULAR TRIP DISTRIBUTION

Vehicular Trip Distribution			Pre-Event Peak Hour			Post-Event Peak Hour		
			In	Out		In	Out	
		Private Vehicle Trips	418	5		0	663	
		Ride Hailing Vehicle Trips	254	254		398	398	
			672	**258**		**398**	**1,061**	
Private Vehicles Parking on east side of river (90%)			377	4		0	597	
Private Vehicles Parking on west side of river (10%)			41	1		0	66	
			418	**5**		**0**	**663**	
			Private Vehicles			**Private Vehicles**		
Trip Distribution	**In**	**Out**	**In**	**Out**		**In**	**Out**	Notes
North (SE Martin Luther King Jr Boulevard or SE Grand Avenue)	**15%**	**23%**	**63**	**1**		**0**	**153**	
North (I-5)	**15%**	**7%**	**63**	**0**		**0**	**46**	2.5% park on west side
Parked on east side	*12.5%*	*4.5%*	*52*	*0*		*0*	*30*	in/out
Parked on west side	*2.5%*	*2.5%*	*10*	*0*		*0*	*17*	
South (I-5)	**20%**	**0.0%**	**84**	**0**		**0**	**0**	2.5% park on west side (inbound); outbound included on Hawthorne Bridge
Parked on east side	*17.5%*	*0.0%*	*73*	*0*		*0*	*0*	
Parked on west side	*2.5%*	*0.0%*	*10*	*0*		*0*	*0*	
West (Hawthorne Bridge)	**10%**	**30%**	**42**	**1**		**0**	**199**	2.5% park on west side; 5% outbound
Parked on east side	*7.5%*	*25.0%*	*31*	*1*		*0*	*166*	
Parked on west side	*2.5%*	*5.0%*	*10*	*0*		*0*	*33*	
West (Morrison Bridge)	**5%**	**5%**	**21**	**0**		**0**	**33**	2.5% park on west side out
Parked on east side	*2.5%*	*2.5%*	*10*	*0*		*0*	*17*	
Parked on west side	*2.5%*	*2.5%*	*10*	*0*		*0*	*17*	
East (SE Stark Street)	**2%**	**2%**	**8**	**0**		**0**	**13**	
East (SE Morrison Street or SE Madison Street)	**13%**	**13%**	**54**	**1**		**0**	**86**	in/out
South (OR 99E, SE Division Street or SE Powell Boulevard)	**20%**	**20%**	**84**	**1**		**0**	**133**	in/out
	100%	**100%**	**418**	**5**		**0**	**663**	
			Ride Hailing Vehicles			**Ride Hailing Vehicles**		
Trip Distribution	**In**	**Out**	**In**	**Out**		**In**	**Out**	
North (SE Martin Luther King Jr Boulevard or SE Grand Avenue)	15%	23%	38	58		60	92	
North (I-5)	15%	7%	38	18		60	28	
South (I-5)	20%	0%	51	0		80	0	
West (Hawthorne Bridge)	10%	30%	25	76		40	119	
West (Morrison Bridge)	5%	5%	13	13		20	20	
East (SE Stark Street)	2%	2%	5	5		8	8	
East (SE Morrison Street or SE Madison Street)	13%	13%	33	33		52	52	
South (OR 99E, SE Division Street or SE Powell Boulevard)	20%	20%	51	51		80	80	
	100%	**100%**	**254**	**254**		**398**	**398**	

SECTION 8: ESTIMATED BIKE TRIP DISTRIBUTION

Bike Trip Distribution			Pre-Event Peak Hour			Post-Event Peak Hour		
			In	Out		In	Out	
		Biking Trips	67	0		0	104	
			67	**0**		**0**	**104**	
			Bikes			**Bikes**		
Trip Distribution	**In**	**Out**	**In**	**Out**		**In**	**Out**	Notes
North (SE Martin Luther King Jr Boulevard or SE Grand Avenue)	**15%**	**15%**	**10**	**0**		**0**	**16**	Route via SE Water
North (I-5)	**15%**	**15%**	**10**	**0**		**0**	**16**	Route via Eastbank Esplanade
Parked on east side	*15.0%*	*15.0%*	*10*	*0*		*0*	*16*	
Parked on west side	*0.0%*	*0.0%*	*0*	*0*		*0*	*0*	
South (I-5)	**20%**	**20.0%**	**13**	**0**		**0**	**21**	Route via Eastbank Esplanade
Parked on east side	*20.0%*	*20.0%*	*13*	*0*		*0*	*21*	
Parked on west side	*0.0%*	*0.0%*	*0*	*0*		*0*	*0*	
West (Hawthorne Bridge)	**10%**	**10%**	**7**	**0**		**0**	**10**	Route via Eastbank Esplanade
Parked on east side	*10.0%*	*10.0%*	*7*	*0*		*0*	*10*	
Parked on west side	*0.0%*	*0.0%*	*0*	*0*		*0*	*0*	
West (Morrison Bridge)	**5%**	**5%**	**3**	**0**		**0**	**5**	Route via SE Water to Morrison Bridge
Parked on east side	*5.0%*	*5.0%*	*3*	*0*		*0*	*5*	
Parked on west side	*0.0%*	*0.0%*	*0*	*0*		*0*	*0*	
East (SE Stark Street)	**2%**	**2%**	**1**	**0**		**0**	**2**	Route via SE Salmon
East (SE Morrison Street or SE Madison Street)	**13%**	**13%**	**9**	**0**		**0**	**14**	Route via SE Salmon
South (OR 99E, SE Division Street or SE Powell Boulevard)	**20%**	**20%**	**13**	**0**		**0**	**21**	Route via Eastbank Esplanade
	100%	**100%**	**67**	**0**		**0**	**104**	
Bike Routes			**In**	**Out**		**In**	**Out**	
Route via SE Water	**15%**	**15%**	**10**	**0**		**0**	**16**	
Route via Eastbank Esplanade	**65%**	**65%**	**44**	**0**		**0**	**68**	
Route via SE Water to Morrison Bridge	**5%**	**5%**	**3**	**0**		**0**	**5**	
Route via SE Salmon	**15%**	**15%**	**10**	**0**		**0**	**16**	
	100%	**100%**	**67**	**0**		**0**	**104**	

			Pre-Event Period			Post-Event Period		
			In	Out		In	Out	
		Biking Trips	135				135	
			135	**0**		**0**	**135**	
			Bikes			**Bikes**		
Trip Distribution	**In**	**Out**	**In**	**Out**		**In**	**Out**	Notes
North (SE Martin Luther King Jr Boulevard or SE Grand Avenue)	**15%**	**15%**	**20**	**0**		**0**	**20**	Route via SE Water
North (I-5)	**15%**	**15%**	**20**	**0**		**0**	**20**	Route via Eastbank Esplanade
Parked on east side	*15.0%*	*15.0%*	*20*	*0*		*0*	*20*	
Parked on west side	*0.0%*	*0.0%*	*0*	*0*		*0*	*0*	
South (I-5)	**20%**	**20.0%**	**27**	**0**		**0**	**27**	Route via Eastbank Esplanade
Parked on east side	*20.0%*	*20.0%*	*27*	*0*		*0*	*27*	
Parked on west side	*0.0%*	*0.0%*	*0*	*0*		*0*	*0*	
West (Hawthorne Bridge)	**10%**	**10%**	**13**	**0**		**0**	**13**	Route via Eastbank Esplanade
Parked on east side	*10.0%*	*10.0%*	*13*	*0*		*0*	*13*	
Parked on west side	*0.0%*	*0.0%*	*0*	*0*		*0*	*0*	
West (Morrison Bridge)	**5%**	**5%**	**7**	**0**		**0**	**7**	Route via SE Water to Morrison Bridge
Parked on east side	*5.0%*	*5.0%*	*7*	*0*		*0*	*7*	
Parked on west side	*0.0%*	*0.0%*	*0*	*0*		*0*	*0*	
East (SE Stark Street)	**2%**	**2%**	**3**	**0**		**0**	**3**	Route via SE Salmon
East (SE Morrison Street or SE Madison Street)	**13%**	**13%**	**18**	**0**		**0**	**18**	Route via SE Salmon
South (OR 99E, SE Division Street or SE Powell Boulevard)	**20%**	**20%**	**27**	**0**		**0**	**27**	Route via Eastbank Esplanade
	100%	**100%**	**135**	**0**		**0**	**135**	
Bike Routes			**In**	**Out**		**In**	**Out**	
Route via SE Water	**15%**	**15%**	**20**	**0**		**0**	**20**	27 0 0
Route via Eastbank Esplanade	**65%**	**65%**	**88**	**0**		**0**	**88**	
Route via SE Water to Morrison Bridge	**5%**	**5%**	**7**	**0**		**0**	**7**	
Route via SE Salmon	**15%**	**15%**	**20**	**0**		**0**	**20**	
	100%	**100%**	**135**	**0**		**0**	**135**	

SECTION 9: EXISTING PARKING OCCUPANCY

		Weekday	Weekday	Weekday	Weekday	Weekday	Weekend	Weekend	Weekend	Weekend	Weekend
Block	Total Parking	6 p.m.-7 p.m.	7 p.m.-8 p.m.	8 p.m.-9 p.m.	9 p.m.-10 p.m.	10 p.m.-11 p.m.	6 p.m.-7 p.m.	7 p.m.-8 p.m.	8 p.m.-9 p.m.	9 p.m.-10 p.m.	10 p.m.-11 p.m.
1	34	3	1	2	2	3	5	5	3	5	
2	45	0	0	0	0	0	5	1	0	1	
3	18	0	0	0	0	0	1	0	0	0	
4	26	2	2	1	2	2	5	4	7	3	
5	35	0	0	0	0	0	0	0	0	0	
6	19	15	12	6	2	3	5	6	5	1	
7	25	9	9	7	5	5	3	3	6	2	
8	40	11	10	7	7	7	3	3	4	3	
9	21	0	0	0	0	0	0	0	5	0	
10	11	0	0	2	1	1	0	0	0	1	
11	21	0	1	1	0	0	0	0	0	0	
12	29	10	9	9	12	7	14	10	11	8	
13	29	16	16	17	18	16	24	22	19	14	
14	16	6	6	11	10	10	10	10	8	9	
15	17	8	7	7	5	5	4	2	2	4	
16	34	13	12	15	13	11	2	1	1	1	
17	19	14	10	7	6	6	3	3	2	1	
18	15	16	9	9	0	0	6	4	1	1	
19	50	9	9	6	3	3	2	3	1	3	
20	28	12	10	4	1	1	5	5	4	4	
21	43	15	15	14	6	5	11	12	11	3	
22	22	12	12	7	4	0	5	10	7	3	
23	17	13	9	8	6	6	6	9	6	5	
24	26	4	4	7	2	2	6	3	5	5	
25	30	10	10	10	10	6	6	3	2	1	
26	30	17	18	15	12	6	18	15	7	6	
27	30	16	12	12	11	11	11	11	8	7	
28	26	17	17	12	7	7	7	4	13	7	
29	20	5	5	7	4	3	3	9	6	2	
30	15	1	1	1	2	1	2	0	0	0	
31	17	0	0	0	0	0	0	0	0	0	
32	31	9	4	6	6	6	1	0	0	0	
33	30	19	17	20	16	11	6	2	1	0	
34	5	5	5	1	1	1	2	2	0	2	
35	26	14	6	6	5	0	4	2	3	1	
36	40	9	8	9	9	8	2	3	4	2	
37	29	10	11	11	6	4	0	1	1	2	
38	21	6	6	6	6	6	8	1	1	1	
39	17	1	1	1	1	1	2	1	1	2	
40	27	0	0	0	0	0	3	1	1	0	
41	26	2	2	0	0	0	0	1	0	1	
42	19	13	10	10	4	4	4	3	3	3	
43	2	1	1	1	0	1	0	0	0	0	
44	3	0	0	0	0	0	0	0	0	0	
	1084	343	297	275	205	169	204	175	159	114	

		Weekday	Weekday	Weekday	Weekday	Weekday	Weekend	Weekend	Weekend	Weekend	Weekend
Block	Total Parking	6 p.m.-7 p.m.	7 p.m.-8 p.m.	8 p.m.-9 p.m.	9 p.m.-10 p.m.	10 p.m.-11 p.m.	6 p.m.-7 p.m.	7 p.m.-8 p.m.	8 p.m.-9 p.m.	9 p.m.-10 p.m.	10 p.m.-11 p.m.
1	34	9%	3%	6%	6%	9%	15%	15%	9%	15%	
2	45	0%	0%	0%	0%	0%	11%	2%	0%	2%	
3	18	0%	0%	0%	0%	0%	6%	0%	0%	0%	
4	26	8%	8%	4%	8%	8%	19%	15%	27%	12%	
5	35	0%	0%	0%	0%	0%	0%	0%	0%	0%	
6	19	79%	63%	32%	11%	16%	26%	32%	26%	5%	
7	25	36%	36%	28%	20%	20%	12%	12%	24%	8%	
8	40	28%	25%	18%	18%	18%	8%	8%	10%	8%	
9	21	0%	0%	0%	0%	0%	0%	0%	24%	0%	
10	11	0%	0%	18%	9%	9%	0%	0%	0%	9%	
11	21	0%	5%	5%	0%	0%	0%	0%	0%	0%	
12	29	34%	31%	31%	41%	24%	48%	34%	38%	28%	
13	29	55%	55%	59%	62%	55%	83%	76%	66%	48%	
14	16	38%	38%	69%	63%	63%	63%	63%	50%	56%	
15	17	47%	41%	41%	29%	29%	24%	12%	12%	24%	
16	34	38%	35%	44%	38%	32%	6%	3%	3%	3%	
17	19	74%	53%	37%	32%	32%	16%	16%	11%	5%	
18	15	107%	60%	60%	0%	0%	40%	27%	7%	7%	
19	50	18%	18%	12%	6%	6%	4%	6%	2%	6%	
20	28	43%	36%	14%	4%	4%	18%	18%	14%	14%	
21	43	35%	35%	33%	14%	12%	26%	28%	26%	7%	
22	22	55%	55%	32%	18%	0%	23%	45%	32%	14%	
23	17	76%	53%	47%	35%	35%	35%	53%	35%	29%	
24	26	15%	15%	27%	8%	8%	23%	12%	19%	19%	
25	30	33%	33%	33%	33%	20%	20%	10%	7%	3%	
26	30	57%	60%	50%	40%	20%	60%	50%	23%	20%	
27	30	53%	40%	40%	37%	37%	37%	37%	27%	23%	
28	26	65%	65%	46%	27%	27%	27%	15%	50%	27%	
29	20	25%	25%	35%	20%	15%	15%	45%	30%	10%	
30	15	7%	7%	7%	13%	7%	13%	0%	0%	0%	
31	17	0%	0%	0%	0%	0%	0%	0%	0%	0%	
32	31	29%	13%	19%	19%	19%	3%	0%	0%	0%	
33	30	63%	57%	67%	53%	37%	20%	7%	3%	0%	
34	5	100%	100%	20%	20%	20%	40%	40%	0%	40%	
35	26	54%	23%	23%	19%	0%	15%	8%	12%	4%	
36	40	23%	20%	23%	23%	20%	5%	8%	10%	5%	
37	29	34%	38%	38%	21%	14%	0%	3%	3%	7%	
38	21	29%	29%	29%	29%	29%	38%	5%	5%	5%	
39	17	6%	6%	6%	6%	6%	12%	6%	6%	12%	
40	27	0%	0%	0%	0%	0%	11%	4%	4%	0%	
41	26	8%	8%	0%	0%	0%	0%	4%	0%	4%	
42	19	68%	53%	53%	21%	21%	21%	16%	16%	16%	
43	2	50%	50%	50%	0%	50%	0%	0%	0%	0%	
44	3	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	1084	32%	27%	25%	19%	16%	19%	16%	15%	11%	

		Weekday	Weekday	Weekday	Weekday	Weekday	Weekend	Weekend	Weekend	Weekend	Weekend
	Total Parking	6 p.m.-7 p.m.	7 p.m.-8 p.m.	8 p.m.-9 p.m.	9 p.m.-10 p.m.	10 p.m.-11 p.m.	6 p.m.-7 p.m.	7 p.m.-8 p.m.	8 p.m.-9 p.m.	9 p.m.-10 p.m.	10 p.m.-11 p.m.
	1084	343	297	275	205	169	204	175	159	114	0
SE Morrison Street to SE Yamhill Street	274	40	34	25	19	21	27	22	30	16	0
SE Yamhill Street to SE Salmon Street	294	119	112	102	74	53	87	86	76	47	0
SE Salmon Street to SE Madison Street	301	123	101	103	80	70	65	52	39	37	0
SE Madison Street to SE Clay Street	215	61	50	45	32	25	25	15	14	14	0
	1084	32%	27%	25%	19%	16%	19%	16%	15%	11%	0%
SE Morrison Street to SE Yamhill Street	274	15%	12%	9%	7%	8%	10%	8%	11%	6%	0%
SE Yamhill Street to SE Salmon Street	294	40%	38%	35%	25%	18%	30%	29%	26%	16%	0%
SE Salmon Street to SE Madison Street	301	41%	34%	34%	27%	23%	22%	17%	13%	12%	0%
SE Madison Street to SE Clay Street	215	28%	23%	21%	15%	12%	12%	7%	7%	7%	0%

SECTION 10: ESTIMATED PARKING DEMAND AND AVAILABILITY WITH PROPOSED VENUE

Parking for Private Vehicles	Demand	6-7 p.m.	7-8 p.m.	8-9 p.m.	
Attendees	761	266	418	76	
Staff	155	155	-5	0	
Total	915				
Staff Private Vehicles					Total
Parking on east side of river, within .25 miles of site	100%	155	-5	0	**155**
Attendees Private Vehicles		6-7 p.m.	7-8 p.m.	8-9 p.m.	Total
Parking on east side of river, within .25 miles of site	80%	213	335	61	**609**
Parking on east side of river, more than .25 miles from site	10%	27	42	8	**76**
Parking on west side of river	10%	27	42	8	**76**
	Total	**266**	**418**	**76**	**761**
Parking locations, east side of river	**763**	6-7 p.m.	7-8 p.m.	8-9 p.m.	
W of Water	25%	92	84	15	
Taylor	13.0%	48	44	8	
Salmon	0.0%	0	0	0	
Main	10.0%	37	33	6	
Madison	2.0%	7	7	1	
E of Water					
N of Yamhill	15%	55	50	9	
Yamhill to Salmon	20%	74	67	12	
Salmon to Madison	20%	74	67	12	
Madison to Clay	20%	74	67	12	

Parking for Private Vehicles	Demand	12-1 p.m.	1-2 p.m.	2-3 p.m.	
Attendees	109	38	60	11	
Staff	23	23	0	0	
Total	131				
Staff Private Vehicles					Total
Parking on east side of river, within .25 miles of site	100%	23	0	0	**23**
Attendees Private Vehicles		12-1 p.m.	1-2 p.m.	2-3 p.m.	Total
Parking on east side of river, within .25 miles of site	100%	38	60	11	**109**
Parking on east side of river, more than .25 miles from site	0%	0	0	0	**0**
Parking on west side of river	0%	0	0	0	**0**
	Total	**38**	**60**	**11**	**109**
Parking locations, east side of river	**131**	12-1 p.m.	1-2 p.m.	2-3 p.m.	
W of Water	25%	15	15	3	
Taylor	13.0%	8	8	1	
Salmon	0.0%	0	0	0	
Main	10.0%	6	6	1	
Madison	2.0%	1	1	0	
E of Water					
N of Yamhill	15%	9	9	2	
Yamhill to Salmon	20%	12	12	2	
Salmon to Madison	20%	12	12	2	
Madison to Clay	20%	12	12	2	

Available Parking	Spots			
Off-street lot on north side of Taylor	40			
Off-street lot at 2nd/Yamhill	34			
Off-street lot accessed via Taylor, west of Water	80			
Off-street lot accessed via Main, west of Water	80		12-1 p.m.	1-2 p.m.	2-3 p.m.
	234				
On Street (in surveyed area)	1,084		78%	77%	74%
Total parking	1,318				

Sold-Out Concerts		Weekday Arrival Time			Weekend Arrival Time		
	Parking Demand	6-7 p.m.	7-8 p.m.	8-9 p.m.	6-7 p.m.	7-8 p.m.	8-9 p.m.
Proposed Venue Estimated Parking Demand (Attendees and Staff)	**915**	**421**	**418**	**76**	**421**	**418**	**76**
Parking on east side of river, within .25 miles of site	763	368	335	61	368	335	61
Parking on east side of river, more than .25 miles from site	76	27	42	8	27	42	8
Parking on west side of river	76	27	42	8	27	42	8
Attendees Parking Demand	**761**	**266**	**418**	**76**	**266**	**418**	**76**
Parking on east side of river, within .25 miles of site (80%)	*609*	*213*	*335*	*61*	*213*	*335*	*61*
Parking on east side of river, more than .25 miles from site (10%)	*76*	*27*	*42*	*8*	*27*	*42*	*8*
Parking on west side of river (10%)	*76*	*27*	*42*	*8*	*27*	*42*	*8*
Staff Parking Demand	**155**	**155**	**0**	**0**	**155**	**0**	**0**
Parking on east side of river, within .25 miles of site (100%)	*155*	*155*	*0*	*0*	*155*	*0*	*0*

note 5 staff departures at 7-8 pm

Total Parking Availability within .25 miles of site		1,318	1,318	1,318	1,318	1,318	1,318
Estimated Occupancy Rate		32%	27%	24%	17%	15%	13%
Estimated Occupied Parking		419	345	311	229	188	167
Estimated Available Parking		665	739	773	855	896	917
		368	702	763	368	702	763
Estimated Occupied Parking with Proposed Venue		787	1047	1074	597	890	930
Estimated Occupancy Rate with Proposed Venue		60%	79%	82%	45%	68%	71%

note 5 staff departures at 7-8 pm

Special Event		Weekday Arrival Time		
	Parking Demand	12-1 p.m.	1-2 p.m.	2-3 p.m.
Proposed Venue Estimated Parking Demand (Attendees and Staff)	**131**	**61**	**60**	**11**
Attendees Parking Demand	109	38	60	11
Staff Parking Demand	23	23	0	0

Total Parking Availability within .25 miles of site		1,318	1,318	1,318
Estimated Occupancy Rate		78%	77%	74%
Estimated Occupied Parking		1023	1015	974
Estimated Available Parking		295	303	344
		61	121	131
Estimated Occupied Parking with Proposed Venue		1084	1135	1105
Estimated Occupancy Rate with Proposed Venue		82%	86%	84%

SECTION 11: EXISTING INTERSECTION ANALYSIS REPORTS

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	15	0	230	30	0
Future Vol, veh/h	10	15	0	230	30	0
Conflicting Peds, #/hr	14	3	22	0	0	22
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	0	1	0	0	1	0
Mvmt Flow	12	19	0	284	37	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	335	40	-	0	-	0
Stage 1	37	-	-	-	-	-
Stage 2	298	-	-	-	-	-
Critical Hdwy	6.4	6.21	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.309	-	-	-	-
Pot Cap-1 Maneuver	664	1034	0	-	-	0
Stage 1	991	-	0	-	-	0
Stage 2	758	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	664	1031	-	-	-	-
Mov Cap-2 Maneuver	664	-	-	-	-	-
Stage 1	991	-	-	-	-	-
Stage 2	758	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	844	-
HCM Lane V/C Ratio	-	0.037	-
HCM Control Delay (s)	-	9.4	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	185	85	165	10	0	15	0	30	15	10	35	0
Future Vol, veh/h	185	85	165	10	0	15	0	30	15	10	35	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	1	0	2	0	0	0	0	2	0	0	0	0
Mvmt Flow	197	90	176	11	0	16	0	32	16	11	37	0
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	10	7.6	8.2	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	0%	69%	0%	40%	22%
Vol Thru, %	67%	31%	0%	0%	78%
Vol Right, %	33%	0%	100%	60%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	45	270	165	25	45
LT Vol	0	185	0	10	10
Through Vol	30	85	0	0	35
RT Vol	15	0	165	15	0
Lane Flow Rate	48	287	176	27	48
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.065	0.402	0.194	0.033	0.067
Departure Headway (Hd)	4.854	5.043	3.981	4.414	5.063
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	741	704	886	812	710
Service Time	2.862	2.839	1.776	2.434	3.072
HCM Lane V/C Ratio	0.065	0.408	0.199	0.033	0.068
HCM Control Delay	8.2	11.3	7.8	7.6	8.4
HCM Lane LOS	A	B	A	A	A
HCM 95th-tile Q	0.2	1.9	0.7	0.1	0.2

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	5	5	5	5	0	40	5	5	120	5
Future Vol, veh/h	5	0	5	5	5	5	0	40	5	5	120	5
Conflicting Peds, #/hr	1	0	2	2	0	1	2	0	10	10	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	20	1	0
Mvmt Flow	6	0	6	6	6	6	0	47	6	6	140	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	214	220	147	220	220	61	148	0	0	63	0	0
Stage 1	157	157	-	60	60	-	-	-	-	-	-	-
Stage 2	57	63	-	160	160	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.3	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.38	-	-
Pot Cap-1 Maneuver	747	682	905	740	682	1010	1446	-	-	1432	-	-
Stage 1	850	772	-	957	849	-	-	-	-	-	-	-
Stage 2	960	846	-	847	769	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	733	670	902	724	670	999	1443	-	-	1418	-	-
Mov Cap-2 Maneuver	733	670	-	724	670	-	-	-	-	-	-	-
Stage 1	848	767	-	947	841	-	-	-	-	-	-	-
Stage 2	947	838	-	836	764	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	9.8	0	0.3
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1443	-	-	809	774	1418	-	-
HCM Lane V/C Ratio	-	-	-	0.014	0.023	0.004	-	-
HCM Control Delay (s)	0	-	-	9.5	9.8	7.5	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	5	10	5	10	0	30	10	20	105	5
Future Vol, veh/h	5	0	5	10	5	10	0	30	10	20	105	5
Conflicting Peds, #/hr	1	0	5	5	0	1	3	0	11	11	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	6	0	6	12	6	12	0	36	12	24	125	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	231	238	136	237	235	54	134	0	0	59	0	0
Stage 1	179	179	-	53	53	-	-	-	-	-	-	-
Stage 2	52	59	-	184	182	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	728	666	918	722	669	1019	1463	-	-	1558	-	-
Stage 1	827	755	-	965	855	-	-	-	-	-	-	-
Stage 2	966	850	-	822	753	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	703	646	911	697	649	1007	1459	-	-	1542	-	-
Mov Cap-2 Maneuver	703	646	-	697	649	-	-	-	-	-	-	-
Stage 1	825	740	-	955	846	-	-	-	-	-	-	-
Stage 2	947	842	-	799	738	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.6	9.8	0	1.1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1459	-	-	794	782	1542	-	-
HCM Lane V/C Ratio	-	-	-	0.015	0.038	0.015	-	-
HCM Control Delay (s)	0	-	-	9.6	9.8	7.4	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

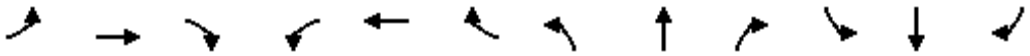
Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	5	5	0	0	0	5	20	5	15	75	40
Future Vol, veh/h	10	5	5	0	0	0	5	20	5	15	75	40
Conflicting Peds, #/hr	1	0	1	1	0	1	9	0	7	7	0	9
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	8	1	0
Mvmt Flow	14	7	7	0	0	0	7	27	7	21	103	55

Major/Minor	Minor2					Major1			Major2		
Conflicting Flow All	228	237	141			167	0	0	41	0	0
Stage 1	182	182	-			-	-	-	-	-	-
Stage 2	46	55	-			-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2			4.1	-	-	4.18	-	-
Critical Hdwy Stg 1	5.4	5.5	-			-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-			-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3			2.2	-	-	2.272	-	-
Pot Cap-1 Maneuver	765	667	912			1423	-	-	1530	-	-
Stage 1	854	753	-			-	-	-	-	-	-
Stage 2	982	853	-			-	-	-	-	-	-
Platoon blocked, %							-	-		-	-
Mov Cap-1 Maneuver	737	0	903			1411	-	-	1530	-	-
Mov Cap-2 Maneuver	737	0	-			-	-	-	-	-	-
Stage 1	842	0	-			-	-	-	-	-	-
Stage 2	959	0	-			-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	1.3	0.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1411	-	-	737	903	1530	-	-
HCM Lane V/C Ratio	0.005	-	-	0.028	0.008	0.013	-	-
HCM Control Delay (s)	7.6	0	-	10	9	7.4	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	10	0	10	0	20	20	45	35	0
Future Volume (veh/h)	0	0	0	10	0	10	0	20	20	45	35	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		0.97	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1870	1900	1885	1900	0
Adj Flow Rate, veh/h				12	0	12	0	24	24	54	42	0
Peak Hour Factor				0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %				0	0	0	0	2	0	1	0	0
Cap, veh/h				151	0	131	0	589	493	630	313	0
Arrive On Green				0.08	0.00	0.08	0.00	0.31	0.31	0.31	0.31	0.00
Sat Flow, veh/h				1810	0	1569	0	1870	1564	656	994	0
Grp Volume(v), veh/h				12	0	12	0	24	24	96	0	0
Grp Sat Flow(s),veh/h/ln				1810	0	1569	0	1870	1564	1651	0	0
Q Serve(g_s), s				0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0
Cycle Q Clear(g_c), s				0.1	0.0	0.1	0.0	0.1	0.1	0.5	0.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.56		0.00
Lane Grp Cap(c), veh/h				151	0	131	0	589	493	943	0	0
V/C Ratio(X)				0.08	0.00	0.09	0.00	0.04	0.05	0.10	0.00	0.00
Avail Cap(c_a), veh/h				4897	0	4246	0	5062	4233	4686	0	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh				5.6	0.0	5.6	0.0	3.2	3.2	3.3	0.0	0.0
Incr Delay (d2), s/veh				0.3	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				5.9	0.0	6.1	0.0	3.2	3.2	3.3	0.0	0.0
LnGrp LOS				A	A	A	A	A	A	A	A	A
Approach Vol, veh/h					24			48			96	
Approach Delay, s/veh					6.0			3.2			3.3	
Approach LOS					A			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	8.2		8.2		5.1			
Change Period (Y+Rc), s	4.0		4.0		4.0			
Max Green Setting (Gmax), s	36.0		36.0		36.0			
Max Q Clear Time (g_c+I1), s	2.1		2.5		2.1			
Green Ext Time (p_c), s	0.2		0.4		0.1			

Intersection Summary		
HCM 6th Ctrl Delay	3.7	
HCM 6th LOS	A	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	115	10	90	25	0	0	0	0	110	775	10
Future Volume (veh/h)	0	115	10	90	25	0	0	0	0	110	775	10
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00				1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1885	1900	1826	0				1900	1885	1900
Adj Flow Rate, veh/h	0	142	12	111	31	0				136	957	12
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81				0.81	0.81	0.81
Percent Heavy Veh, %	0	0	1	0	5	0				0	1	0
Cap, veh/h	0	1009	85	789	1069	0				186	1400	449
Arrive On Green	0.00	0.59	0.59	0.59	0.59	0.00				0.29	0.30	0.30
Sat Flow, veh/h	0	1722	146	1250	1826	0				619	4666	1495
Grp Volume(v), veh/h	0	0	154	111	31	0				408	685	12
Grp Sat Flow(s),veh/h/ln	0	0	1868	1250	1826	0				1854	1716	1495
Q Serve(g_s), s	0.0	0.0	2.6	3.1	0.5	0.0				13.8	12.2	0.4
Cycle Q Clear(g_c), s	0.0	0.0	2.6	5.7	0.5	0.0				13.8	12.2	0.4
Prop In Lane	0.00		0.08	1.00		0.00				0.33		1.00
Lane Grp Cap(c), veh/h	0	0	1094	789	1069	0				556	1029	449
V/C Ratio(X)	0.00	0.00	0.14	0.14	0.03	0.00				0.73	0.67	0.03
Avail Cap(c_a), veh/h	0	0	1094	789	1069	0				556	1029	449
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.92	0.96	0.96	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	6.5	7.8	6.1	0.0				22.1	21.4	17.3
Incr Delay (d2), s/veh	0.0	0.0	0.2	0.4	0.0	0.0				8.3	3.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.9	0.8	0.2	0.0				6.9	5.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	6.8	8.2	6.2	0.0				30.4	24.8	17.4
LnGrp LOS	A	A	A	A	A	A				C	C	B
Approach Vol, veh/h		154			142						1105	
Approach Delay, s/veh		6.8			7.7						26.8	
Approach LOS		A			A						C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	25.0	45.0	45.0
Change Period (Y+Rc), s	* 4.8	4.0	4.0
Max Green Setting (Gmax), s	* 20	41.0	41.0
Max Q Clear Time (g_c+I1), s	15.8	4.6	7.7
Green Ext Time (p_c), s	1.1	0.2	0.1

Intersection Summary	
HCM 6th Ctrl Delay	22.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	170	0	0	90	45	25	975	215	0	0	0
Future Volume (veh/h)	55	170	0	0	90	45	25	975	215	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	0.98		1.00	1.00		0.98	1.00		0.93			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1885	1900	1856	1870	1900			
Adj Flow Rate, veh/h	61	189	0	0	100	50	28	1083	239			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	0	0	0	0	1	0	3	2	0			
Cap, veh/h	374	543	0	0	336	168	75	3086	901			
Arrive On Green	0.09	0.09	0.00	0.00	0.29	0.29	0.59	0.60	0.60			
Sat Flow, veh/h	1236	1900	0	0	1175	588	125	5143	1501			
Grp Volume(v), veh/h	61	189	0	0	0	150	417	694	239			
Grp Sat Flow(s),veh/h/ln	1236	1900	0	0	0	1763	1864	1702	1501			
Q Serve(g_s), s	3.3	6.5	0.0	0.0	0.0	4.6	8.1	7.2	5.3			
Cycle Q Clear(g_c), s	7.9	6.5	0.0	0.0	0.0	4.6	8.1	7.2	5.3			
Prop In Lane	1.00		0.00	0.00		0.33	0.07		1.00			
Lane Grp Cap(c), veh/h	374	543	0	0	0	504	1118	2042	901			
V/C Ratio(X)	0.16	0.35	0.00	0.00	0.00	0.30	0.37	0.34	0.27			
Avail Cap(c_a), veh/h	374	543	0	0	0	504	1118	2042	901			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.99	0.99	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	28.4	25.6	0.0	0.0	0.0	19.5	7.2	7.0	6.7			
Incr Delay (d2), s/veh	0.9	1.7	0.0	0.0	0.0	1.5	1.0	0.5	0.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.1	3.3	0.0	0.0	0.0	2.0	2.9	2.3	1.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.3	27.3	0.0	0.0	0.0	21.0	8.2	7.5	7.4			
LnGrp LOS	C	C	A	A	A	C	A	A	A			
Approach Vol, veh/h		250			150			1350				
Approach Delay, s/veh		27.8			21.0			7.7				
Approach LOS		C			C			A				

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	46.0	24.0	24.0
Change Period (Y+Rc), s	* 4.7	4.0	4.0
Max Green Setting (Gmax), s	* 41	20.0	20.0
Max Q Clear Time (g_c+I1), s	10.1	9.9	6.6
Green Ext Time (p_c), s	1.4	0.1	0.1

Intersection Summary	
HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

	use dropdown	use dropdown	use dropdown	use dropdown			use dropdown	use dropdov	use dropdow	use dropdow	use dropdov
Intersection ID and Name	**NB PhasingType**	**SB PhasingType**	**EB PhasingType**	**WB PhasingType**	**Cycle Length**	**Lost Time**	**Use Overlap Calculator**	**NBR Overla**	**SBR Overla**	**EBR Overla**	**WBR Overla**
6: SE Water Avenue & SE Clay Street	Permitted	Permitted		Permitted	80	8	No				
7: SE Martin Luther King Jr. Boulevard & SE Stark Street		Protected	Protected	Protected	70	8	No	No	No	No	No
8: SE Grand Avenue & SE Stark Street/ SE S	Protected		Protected	Protected	70	8	No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				

BEGIN	1	3	4	5	6	7	8	9	10	11	12	13	14		Critical Flow Calculator					
CALCULATIONS		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		WBL/EBT	EBL/WBT	NBL/SBT	SBL/NBT	V/S E/W	V/S N/S
Adj Flow Rate, veh/h		0	0	0	12	0	12	0	24	24	54	42	0	Protected	0.01	0.01	0.04	0.10		
Sat Flow, veh/h		0	0	0	1810	0	1569	0	1870	1564	656	994	0	Permitted or Split	0.00	0.01	0.08	0.02		
V/S		0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.01	0.02	0.08	0.04	0.00	selected phasing	0.00	0.01	0.08	0.02	0.01	0.08
Adj Flow Rate, veh/h		0	142	12	111	31	0	0	0	0	136	957	12	Protected	0.17	0.02	0.21	0.22		
Sat Flow, veh/h		0	1722	146	1250	1826	0	0	0	0	619	4666	1495	Permitted or Split	0.08	0.09	0.22	0.00		
V/S		0.00	0.08	0.08	0.09	0.02	0.00	0.00	0.00	0.00	0.22	0.21	0.01	selected phasing	0.17	0.02	0.22	0.22	0.17	0.22
Adj Flow Rate, veh/h		61	189	0	0	100	50	28	1083	239	0	0	0	Protected	0.10	0.13	0.22	0.21		
Sat Flow, veh/h		1236	1900	0	0	1175	588	125	5143	1501	0	0	0	Permitted or Split	0.10	0.09	0.00	0.22		
V/S		0.05	0.10	0.00	0.00	0.09	0.09	0.22	0.21	0.16	0.00	0.00	0.00	selected phasing	0.10	0.13	0.22	0.22	0.13	0.22
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h														Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h														Permitted or Split	0.00	0.00	0.00	0.00		
V/S		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00

Overlap Critical Flow Calculator														
	NBR OV	**NB OV V/S**	**SBR OV**	**SB OV V/S**	**EBR OV**	**EB OV V/S**	**WBR OV**	**WB OV V/S**	**V/S Overlap**		**Intersection V/C**	**HCM 6th Ctrl Delay**	**HCM 6th LOS**	**Synchro ID**
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	Permitted	0.00	Permitted	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.01	0.00	0.01	Permitted	0.04	Permitted	0.04	N/A		**0.10**	**4**	**A**	6
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	Protected	0.09	Protected	0.09	No OV					
Overlap Approach Phasing	Protected	0.08	Protected	0.08	0.00	0.21	0.00	0.21	N/A		**0.44**	**23**	**C**	7
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	Protected	0.22	Protected	0.22	Protected	0.05	Protected	0.05	No OV					
Overlap Approach Phasing	Protected	0.10	Protected	0.10	Protected	0.21	Protected	0.21	N/A		**0.40**	**12**	**B**	8
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	

List of Phasing Types
Protected
Permitted
Split

List of Overlap Types
Yes
No

Sheet Description:
This sheet reads in the adjusted flow rate and the saturation flow rate from Synchro and divides them to calculated the V/S for each movement.
The critical flow calculator calculates the critical v/s for each conflicting phase pair.
for protected phases, this v/s is the left turn v/s plus the max of the opposing movement v/s
for the permitted and split phases, this v/s is the max of the three movement v/s
The next step selects the proper v/s based on phasing provided
V/S by east-west and north-south is selected by taking the max of the phase pairs or by adding them (if split phasing)
If overlap calculator was selected in input section and overlap phases were indicated, then overlap v/s for intersection is calculated. See details below
If the right turn v/s is greater than the through v/s for the right turn overlap approach, then the right turn is assumed the critical movement and intersection v/c calc will use the v/s overlap instead of approach v/
The final step in v/c calculation uses the approach v/s ratios, cycle length, and lost time to calculate overall intersection v/c
Delay and LOS are read directly from the HCM 6 report

Overlap Calculator Details
Overlap calculator reads in whether an overlap phase is in use and what type of phasing is associated with the right turn approach and the overlapped approach
V/S is read in for right turn movement, and remaining approaches from previous calculations
-right turn overlap v/s is just the v/s for the right turn movement (i.e. NBR)
-right turn approach v/s is the critical v/s associated with the right turn approaches (i.e. NB/SB) and is calculated differently for protected vs split
-overlap approach v/s is the critical v/s associated with the overlap approaches (i.e. EB/WB) and is calculated differently for protected vs split phasing
The v/s overlap column sums the 3 v/s values for the overlap phasing to get the total v/s overlap to be used in the v/c calculation
If there are overlaps for both approaches (i.e. N/S or E/W), the v/s overlap will use the greater of the two for most conservative approach
Use Overlap Calculator' must be enabled and 'Use OV V/S' must be showing in V/S Overlap column in order for overlap v/s to be used in final v/c calculation

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	5	0	35	15	0
Future Vol, veh/h	5	5	0	35	15	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	55	55	55	55	55	55
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	9	0	64	27	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	91	27	-	0	-	0
Stage 1	27	-	-	-	-	-
Stage 2	64	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	914	1054	0	-	-	0
Stage 1	1001	-	0	-	-	0
Stage 2	964	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	914	1054	-	-	-	-
Mov Cap-2 Maneuver	914	-	-	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	964	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	979	-
HCM Lane V/C Ratio	-	0.019	-
HCM Control Delay (s)	-	8.7	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	20	30	0	0	5	0	5	5	5	15	0
Future Vol, veh/h	25	20	30	0	0	5	0	5	5	5	15	0
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	35	28	42	0	0	7	0	7	7	7	21	0
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	7.5	6.6	6.9	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	0%	56%	0%	0%	25%
Vol Thru, %	50%	44%	0%	0%	75%
Vol Right, %	50%	0%	100%	100%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	45	30	5	20
LT Vol	0	25	0	0	5
Through Vol	5	20	0	0	15
RT Vol	5	0	30	5	0
Lane Flow Rate	14	63	42	7	28
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.015	0.085	0.046	0.007	0.032
Departure Headway (Hd)	3.811	4.856	3.878	3.551	4.151
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	926	740	925	1001	853
Service Time	1.887	2.574	1.596	1.598	2.222
HCM Lane V/C Ratio	0.015	0.085	0.045	0.007	0.033
HCM Control Delay	6.9	8	6.8	6.6	7.4
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0	0.3	0.1	0	0.1

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	0	0	0	0	0	10	0	5	30	0
Future Vol, veh/h	5	0	0	0	0	0	0	10	0	5	30	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	7	0	0	0	0	0	0	14	0	7	43	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	71	71	43	71	71	14	43	0	0	14	0	0
Stage 1	57	57	-	14	14	-	-	-	-	-	-	-
Stage 2	14	14	-	57	57	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	925	823	1033	925	823	1072	1579	-	-	1617	-	-
Stage 1	960	851	-	1011	888	-	-	-	-	-	-	-
Stage 2	1011	888	-	960	851	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	922	820	1033	922	820	1072	1579	-	-	1617	-	-
Mov Cap-2 Maneuver	922	820	-	922	820	-	-	-	-	-	-	-
Stage 1	960	848	-	1011	888	-	-	-	-	-	-	-
Stage 2	1011	888	-	956	848	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.9	0	0	1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1579	-	-	922	-	1617	-	-
HCM Lane V/C Ratio	-	-	-	0.008	-	0.004	-	-
HCM Control Delay (s)	0	-	-	8.9	0	7.2	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	5	0	0	0	0	0	10	5	5	25	0
Future Vol, veh/h	0	5	0	0	0	0	0	10	5	5	25	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	0	0	51	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	7	0	0	0	0	0	14	7	7	36	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	68	71	36	72	68	18	36	0	0	21	0	0
Stage 1	50	50	-	18	18	-	-	-	-	-	-	-
Stage 2	18	21	-	54	50	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.71	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.759	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	930	823	912	924	826	1066	1588	-	-	1608	-	-
Stage 1	968	857	-	1006	884	-	-	-	-	-	-	-
Stage 2	1006	882	-	963	857	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	927	820	912	915	823	1066	1588	-	-	1608	-	-
Mov Cap-2 Maneuver	927	820	-	915	823	-	-	-	-	-	-	-
Stage 1	968	854	-	1006	884	-	-	-	-	-	-	-
Stage 2	1006	882	-	951	854	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	0	0	1.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1588	-	-	820	-	1608	-	-
HCM Lane V/C Ratio	-	-	-	0.009	-	0.004	-	-
HCM Control Delay (s)	0	-	-	9.4	0	7.2	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-

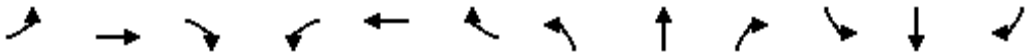
Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	0	0	10	5	5	5	20	15
Future Vol, veh/h	0	0	0	0	0	0	10	5	5	5	20	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	61	61	61	61	61	61	61	61	61
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0	16	8	8	8	33	25

Major/Minor	Minor2						Major1			Major2		
Conflicting Flow All	106	110	46				58	0	0	16	0	0
Stage 1	62	62	-				-	-	-	-	-	-
Stage 2	44	48	-				-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2				4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.4	5.5	-				-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-				-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3				2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	897	784	1029				1559	-	-	1615	-	-
Stage 1	966	847	-				-	-	-	-	-	-
Stage 2	984	859	-				-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	884	0	1029				1559	-	-	1615	-	-
Mov Cap-2 Maneuver	884	0	-				-	-	-	-	-	-
Stage 1	956	0	-				-	-	-	-	-	-
Stage 2	979	0	-				-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	3.7	0.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1559	-	-	-	-	1615	-	-
HCM Lane V/C Ratio	0.011	-	-	-	-	0.005	-	-
HCM Control Delay (s)	7.3	0	-	0	0	7.2	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	5	0	15	5	10	10	0
Future Volume (veh/h)	0	0	0	0	0	5	0	15	5	10	10	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1900	1900	1796	1900	0
Adj Flow Rate, veh/h				0	0	6	0	19	6	13	13	0
Peak Hour Factor				0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %				0	0	0	0	0	0	7	0	0
Cap, veh/h				30	0	27	0	252	214	674	100	0
Arrive On Green				0.00	0.00	0.02	0.00	0.13	0.13	0.13	0.13	0.00
Sat Flow, veh/h				1810	0	1610	0	1900	1610	755	755	0
Grp Volume(v), veh/h				0	0	6	0	19	6	26	0	0
Grp Sat Flow(s),veh/h/ln				1810	0	1610	0	1900	1610	1510	0	0
Q Serve(g_s), s				0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0
Cycle Q Clear(g_c), s				0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.50		0.00
Lane Grp Cap(c), veh/h				30	0	27	0	252	214	775	0	0
V/C Ratio(X)				0.00	0.00	0.23	0.00	0.08	0.03	0.03	0.00	0.00
Avail Cap(c_a), veh/h				6928	0	6165	0	7275	6165	6752	0	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh				0.0	0.0	4.6	0.0	3.6	3.6	3.7	0.0	0.0
Incr Delay (d2), s/veh				0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	10.5	0.0	3.6	3.6	3.7	0.0	0.0
LnGrp LOS				A	A	B	A	A	A	A	A	A
Approach Vol, veh/h					6			25			26	
Approach Delay, s/veh					10.5			3.6			3.7	
Approach LOS					B			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	5.2		5.2		4.2			
Change Period (Y+Rc), s	4.0		4.0		4.0			
Max Green Setting (Gmax), s	36.0		36.0		36.0			
Max Q Clear Time (g_c+I1), s	2.1		2.2		2.0			
Green Ext Time (p_c), s	0.1		0.1		0.0			

Intersection Summary		
HCM 6th Ctrl Delay	4.4	
HCM 6th LOS	A	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	15	5	40	5	0	0	0	0	50	340	5
Future Volume (veh/h)	0	15	5	40	5	0	0	0	0	50	340	5
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1870	1707
Adj Flow Rate, veh/h	0	20	7	53	7	0				66	447	7
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	2	13
Cap, veh/h	0	782	274	916	1113	0				190	1383	421
Arrive On Green	0.00	0.59	0.59	0.59	0.59	0.00				0.29	0.30	0.30
Sat Flow, veh/h	0	1335	467	1404	1900	0				632	4610	1402
Grp Volume(v), veh/h	0	0	27	53	7	0				192	321	7
Grp Sat Flow(s),veh/h/ln	0	0	1803	1404	1900	0				1839	1702	1402
Q Serve(g_s), s	0.0	0.0	0.4	1.2	0.1	0.0				5.7	5.1	0.2
Cycle Q Clear(g_c), s	0.0	0.0	0.4	1.6	0.1	0.0				5.7	5.1	0.2
Prop In Lane	0.00		0.26	1.00		0.00				0.34		1.00
Lane Grp Cap(c), veh/h	0	0	1056	916	1113	0				552	1021	421
V/C Ratio(X)	0.00	0.00	0.03	0.06	0.01	0.00				0.35	0.31	0.02
Avail Cap(c_a), veh/h	0	0	1056	916	1113	0				552	1021	421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	6.1	6.4	6.0	0.0				19.3	18.9	17.2
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.0				1.7	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.2	0.3	0.0	0.0				2.6	2.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	6.1	6.6	6.0	0.0				21.0	19.7	17.3
LnGrp LOS	A	A	A	A	A	A				C	B	B
Approach Vol, veh/h		27			60						520	
Approach Delay, s/veh		6.1			6.5						20.2	
Approach LOS		A			A						C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	25.0	45.0	45.0
Change Period (Y+Rc), s	* 4.8	4.0	4.0
Max Green Setting (Gmax), s	* 20	41.0	41.0
Max Q Clear Time (g_c+I1), s	7.7	2.4	3.6
Green Ext Time (p_c), s	0.8	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	18.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	50	0	0	35	25	10	345	35	0	0	0
Future Volume (veh/h)	15	50	0	0	35	25	10	345	35	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		0.98	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1870	1900			
Adj Flow Rate, veh/h	17	56	0	0	39	28	11	388	39			
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89			
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	0			
Cap, veh/h	449	543	0	0	291	209	82	3079	945			
Arrive On Green	0.29	0.29	0.00	0.00	0.29	0.29	0.59	0.60	0.60			
Sat Flow, veh/h	1344	1900	0	0	1018	731	137	5131	1576			
Grp Volume(v), veh/h	17	56	0	0	0	67	150	249	39			
Grp Sat Flow(s),veh/h/ln	1344	1900	0	0	0	1749	1864	1702	1576			
Q Serve(g_s), s	0.7	1.5	0.0	0.0	0.0	2.0	2.5	2.2	0.7			
Cycle Q Clear(g_c), s	2.7	1.5	0.0	0.0	0.0	2.0	2.5	2.2	0.7			
Prop In Lane	1.00		0.00	0.00		0.42	0.07		1.00			
Lane Grp Cap(c), veh/h	449	543	0	0	0	500	1118	2042	945			
V/C Ratio(X)	0.04	0.10	0.00	0.00	0.00	0.13	0.13	0.12	0.04			
Avail Cap(c_a), veh/h	449	543	0	0	0	500	1118	2042	945			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	19.6	18.4	0.0	0.0	0.0	18.6	6.1	6.0	5.7			
Incr Delay (d2), s/veh	0.2	0.4	0.0	0.0	0.0	0.6	0.2	0.1	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.2	0.7	0.0	0.0	0.0	0.8	0.9	0.7	0.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.7	18.8	0.0	0.0	0.0	19.1	6.4	6.2	5.8			
LnGrp LOS	B	B	A	A	A	B	A	A	A			
Approach Vol, veh/h		73			67			438				
Approach Delay, s/veh		19.0			19.1			6.2				
Approach LOS		B			B			A				

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	46.0	24.0	24.0
Change Period (Y+Rc), s	* 4.7	4.0	4.0
Max Green Setting (Gmax), s	* 41	20.0	20.0
Max Q Clear Time (g_c+I1), s	4.5	4.7	4.0
Green Ext Time (p_c), s	0.5	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	9.3
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection ID and Name	use dropdown NB PhasingType	use dropdown SB PhasingType	use dropdown EB PhasingType	use dropdown WB PhasingType	Cycle Length	Lost Time	use dropdown Use Overlap Calculator	use dropdow NBR Overla	use dropdow SBR Overla	use dropdow EBR Overla	use dropdow WBR Overla	BEGIN CALCULATIONS
6: SE Water Avenue & SE Clay Street	Permitted	Permitted		Permitted	80	8	No					
7: SE Martin Luther King Jr. Boulevard & SE Stark Street		Protected	Protected	Protected	70	8	No	No	No	No	No	
8: SE Grand Avenue & SE Stark Street/ SE S	Protected		Protected	Protected	70	8	No					
							No					
							No					
							No					
							No					
							No					
							No					
							No					
							No					
							No					
							No					

1	3 EBL	4 EBT	5 EBR	6 WBL	7 WBT	8 WBR	9 NBL	10 NBT	11 NBR	12 SBL	13 SBT	14 SBR		Critical Flow Calculator WBL/EBT	EBL/WBT	NBL/SBT	SBL/NBT	V/S E/W	V/S N/S
Adj Flow Rate, veh/h	0	0	0	0	0	6	0	19	6	13	13	0	Protected	0.00	0.00	0.02	0.03		
Sat Flow, veh/h	0	0	0	1810	0	1610	0	1900	1610	755	755	0	Permitted or Split	0.00	0.00	0.02	0.01		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.02	0.00	selected phasing	0.00	0.00	0.02	0.01	0.00	0.02
Adj Flow Rate, veh/h	0	20	7	53	7	0	0	0	0	66	447	7	Protected	0.05	0.00	0.10	0.10		
Sat Flow, veh/h	0	1335	467	1404	1900	0	0	0	0	632	4610	1402	Permitted or Split	0.01	0.04	0.10	0.00		
V/S	0.00	0.01	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.00	selected phasing	0.05	0.00	0.10	0.10	0.05	0.10
Adj Flow Rate, veh/h	17	56	0	0	39	28	11	388	39	0	0	0	Protected	0.03	0.05	0.08	0.08		
Sat Flow, veh/h	1344	1900	0	0	1018	731	137	5131	1576	0	0	0	Permitted or Split	0.03	0.04	0.00	0.08		
V/S	0.01	0.03	0.00	0.00	0.04	0.04	0.08	0.08	0.02	0.00	0.00	0.00	selected phasing	0.03	0.05	0.08	0.08	0.05	0.08
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00

Overlap Critical Flow Calculator	NBR OV	NB OV V/S	SBR OV	SB OV V/S	EBR OV	EB OV V/S	WBR OV	WB OV V/S	V/S Overlap		Intersection V/C	HCM 6th Ctrl Delay	HCM 6th LOS	Synchro ID
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	Permitted	0.00	Permitted	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	Permitted	0.02	Permitted	0.02	N/A		**0.02**	**4**	**A**	6
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	Protected	0.04	Protected	0.04	No OV					
Overlap Approach Phasing	Protected	0.01	Protected	0.01	0.00	0.10	0.00	0.10	N/A		**0.18**	**18**	**B**	7
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	Protected	0.08	Protected	0.08	Protected	0.01	Protected	0.01	No OV					
Overlap Approach Phasing	Protected	0.04	Protected	0.04	Protected	0.08	Protected	0.08	N/A		**0.15**	**9**	**A**	8
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	

List of Phasing Types
Protected
Permitted
Split

List of Overlap Types
Yes
No

Sheet Description:
This sheet reads in the adjusted flow rate and the saturation flow rate from Synchro and divides them to calculated the V/S for each movement.
The critical flow calculator calculates the critical v/s for each conflicting phase pair.
for protected phases, this v/s is the left turn v/s plus the max of the opposing movement v/s
for the permitted and split phases, this v/s is the max of the three movement v/s
The next step selects the proper v/s based on phasing provided
V/S by east-west and north-south is selected by taking the max of the phase pairs or by adding them (if split phasing)
If overlap calculator was selected in input section and overlap phases were indicated, then overlap v/s for intersection is calculated. See details below
If the right turn v/s is greater than the through v/s for the right turn overlap approach, then the right turn is assumed the critical movement and intersection v/c calc will use the v/s overlap instead of approach v/
The final step in v/c calculation uses the approach v/s ratios, cycle length, and lost time to calculate overall intersection v/c
Delay and LOS are read directly from the HCM 6 report

Overlap Calculator Details
Overlap calculator reads in whether an overlap phase is in use and what type of phasing is associated with the right turn approach and the overlapped approach
V/S is read in for right turn movement, and remaining approaches from previous calculations
-right turn overlap v/s is just the v/s for the right turn movement (i.e. NBR)
-right turn approach v/s is the critical v/s associated with the right turn approaches (i.e. NB/SB) and is calculated differently for protected vs split
-overlap approach v/s is the critical v/s associated with the overlap approaches (i.e. EB/WB) and is calculated differently for protected vs split phasing
The v/s overlap column sums the 3 v/s values for the overlap phasing to get the total v/s overlap to be used in the v/c calculation
If there are overlaps for both approaches (i.e. N/S or E/W), the v/s overlap will use the greater of the two for most conservative approach
Use Overlap Calculator' must be enabled and 'Use OV V/S' must be showing in V/S Overlap column in order for overlap v/s to be used in final v/c calculation

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	20	0	225	45	0
Future Vol, veh/h	5	20	0	225	45	0
Conflicting Peds, #/hr	1	0	9	0	0	9
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	1	7	0
Mvmt Flow	7	26	0	296	59	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	356	59	-	0	-	0
Stage 1	59	-	-	-	-	-
Stage 2	297	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	646	1012	0	-	-	0
Stage 1	969	-	0	-	-	0
Stage 2	758	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	646	1012	-	-	-	-
Mov Cap-2 Maneuver	646	-	-	-	-	-
Stage 1	969	-	-	-	-	-
Stage 2	758	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	909	-
HCM Lane V/C Ratio	-	0.036	-
HCM Control Delay (s)	-	9.1	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	185	90	190	5	0	15	0	25	15	5	60	0
Future Vol, veh/h	185	90	190	5	0	15	0	25	15	5	60	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	1	0	0	0	0	0	0	3	0	0	6	0
Mvmt Flow	201	98	207	5	0	16	0	27	16	5	65	0
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	10.2	7.5	8.3	8.7
HCM LOS	B	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	0%	67%	0%	25%	8%
Vol Thru, %	62%	33%	0%	0%	92%
Vol Right, %	38%	0%	100%	75%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	40	275	190	20	65
LT Vol	0	185	0	5	5
Through Vol	25	90	0	0	60
RT Vol	15	0	190	15	0
Lane Flow Rate	43	299	207	22	71
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.06	0.43	0.237	0.026	0.1
Departure Headway (Hd)	4.94	5.183	4.126	4.382	5.09
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	725	699	876	815	704
Service Time	2.97	2.883	1.826	2.416	3.117
HCM Lane V/C Ratio	0.059	0.428	0.236	0.027	0.101
HCM Control Delay	8.3	11.7	8.1	7.5	8.7
HCM Lane LOS	A	B	A	A	A
HCM 95th-tile Q	0.2	2.2	0.9	0.1	0.3

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	5	5	5	5	5	5	30	5	10	165	10
Future Vol, veh/h	0	5	5	5	5	5	5	30	5	10	165	10
Conflicting Peds, #/hr	2	0	0	0	0	2	5	0	7	7	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	6	0	0	2	0
Mvmt Flow	0	6	6	6	6	6	6	33	6	11	183	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	272	274	194	272	276	45	199	0	0	46	0	0
Stage 1	216	216	-	55	55	-	-	-	-	-	-	-
Stage 2	56	58	-	217	221	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	685	637	853	685	635	1031	1385	-	-	1575	-	-
Stage 1	791	728	-	962	853	-	-	-	-	-	-	-
Stage 2	961	851	-	790	724	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	666	622	849	665	620	1022	1378	-	-	1565	-	-
Mov Cap-2 Maneuver	666	622	-	665	620	-	-	-	-	-	-	-
Stage 1	784	719	-	951	844	-	-	-	-	-	-	-
Stage 2	944	842	-	773	715	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	10	1	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1378	-	-	718	733	1565	-	-
HCM Lane V/C Ratio	0.004	-	-	0.015	0.023	0.007	-	-
HCM Control Delay (s)	7.6	0	-	10.1	10	7.3	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	5	0	10	0	10	5	25	10	15	155	5
Future Vol, veh/h	5	5	0	10	0	10	5	25	10	15	155	5
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	11	11	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	6	0	0	2	0
Mvmt Flow	5	5	0	11	0	11	5	26	11	16	163	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	247	258	168	253	255	43	170	0	0	48	0	0
Stage 1	200	200	-	53	53	-	-	-	-	-	-	-
Stage 2	47	58	-	200	202	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	711	650	881	704	652	1033	1420	-	-	1572	-	-
Stage 1	806	739	-	965	855	-	-	-	-	-	-	-
Stage 2	972	851	-	806	738	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	695	632	879	684	634	1022	1417	-	-	1556	-	-
Mov Cap-2 Maneuver	695	632	-	684	634	-	-	-	-	-	-	-
Stage 1	801	729	-	951	843	-	-	-	-	-	-	-
Stage 2	958	839	-	791	728	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.5	9.5	0.9	0.6
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1417	-	-	662	820	1556	-	-
HCM Lane V/C Ratio	0.004	-	-	0.016	0.026	0.01	-	-
HCM Control Delay (s)	7.5	0	-	10.5	9.5	7.3	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

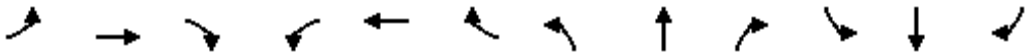
Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	0	5	0	0	0	15	25	5	15	100	55
Future Vol, veh/h	15	0	5	0	0	0	15	25	5	15	100	55
Conflicting Peds, #/hr	0	0	1	1	0	0	2	0	3	3	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	10	0	0	0	0	0	0	0	0	0	0	2
Mvmt Flow	16	0	5	0	0	0	16	27	5	16	109	60

Major/Minor	Minor2					Major1			Major2		
Conflicting Flow All	235	240	142			171	0	0	35	0	0
Stage 1	173	173	-			-	-	-	-	-	-
Stage 2	62	67	-			-	-	-	-	-	-
Critical Hdwy	6.5	6.5	6.2			4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.5	5.5	-			-	-	-	-	-	-
Critical Hdwy Stg 2	5.5	5.5	-			-	-	-	-	-	-
Follow-up Hdwy	3.59	4	3.3			2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	736	665	911			1418	-	-	1589	-	-
Stage 1	838	760	-			-	-	-	-	-	-
Stage 2	941	843	-			-	-	-	-	-	-
Platoon blocked, %							-	-		-	-
Mov Cap-1 Maneuver	716	0	908			1415	-	-	1589	-	-
Mov Cap-2 Maneuver	716	0	-			-	-	-	-	-	-
Stage 1	826	0	-			-	-	-	-	-	-
Stage 2	929	0	-			-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	2.5	0.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1415	-	-	716	908	1589	-	-
HCM Lane V/C Ratio	0.012	-	-	0.023	0.006	0.01	-	-
HCM Control Delay (s)	7.6	0	-	10.1	9	7.3	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	10	0	15	0	30	30	45	60	0
Future Volume (veh/h)	0	0	0	10	0	15	0	30	30	45	60	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h				11	0	17	0	34	34	52	69	0
Peak Hour Factor				0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				153	0	136	0	704	582	517	470	0
Arrive On Green				0.08	0.00	0.08	0.00	0.37	0.37	0.37	0.37	0.00
Sat Flow, veh/h				1810	0	1605	0	1900	1571	448	1270	0
Grp Volume(v), veh/h				11	0	17	0	34	34	121	0	0
Grp Sat Flow(s),veh/h/ln				1810	0	1605	0	1900	1571	1718	0	0
Q Serve(g_s), s				0.1	0.0	0.1	0.0	0.2	0.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s				0.1	0.0	0.1	0.0	0.2	0.2	0.6	0.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.43		0.00
Lane Grp Cap(c), veh/h				153	0	136	0	704	582	987	0	0
V/C Ratio(X)				0.07	0.00	0.12	0.00	0.05	0.06	0.12	0.00	0.00
Avail Cap(c_a), veh/h				4437	0	3936	0	4658	3851	4356	0	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh				6.2	0.0	6.2	0.0	3.0	3.0	3.1	0.0	0.0
Incr Delay (d2), s/veh				0.3	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				6.5	0.0	6.8	0.0	3.0	3.0	3.1	0.0	0.0
LnGrp LOS				A	A	A	A	A	A	A	A	A
Approach Vol, veh/h					28			68			121	
Approach Delay, s/veh					6.7			3.0			3.1	
Approach LOS					A			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	9.4		9.4		5.2			
Change Period (Y+Rc), s	4.0		4.0		4.0			
Max Green Setting (Gmax), s	36.0		36.0		36.0			
Max Q Clear Time (g_c+I1), s	2.2		2.6		2.1			
Green Ext Time (p_c), s	0.3		0.5		0.2			

Intersection Summary		
HCM 6th Ctrl Delay	3.5	
HCM 6th LOS	A	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	140	15	95	40	0	0	0	0	110	775	10
Future Volume (veh/h)	0	140	15	95	40	0	0	0	0	110	775	10
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.99		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1870	0				1900	1885	1811
Adj Flow Rate, veh/h	0	173	19	117	49	0				136	957	12
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81				0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	2	0				0	1	6
Cap, veh/h	0	502	55	366	561	0				362	2733	870
Arrive On Green	0.00	0.30	0.30	0.30	0.30	0.00				0.57	0.59	0.59
Sat Flow, veh/h	0	1673	184	1199	1870	0				619	4666	1486
Grp Volume(v), veh/h	0	0	192	117	49	0				408	685	12
Grp Sat Flow(s),veh/h/ln	0	0	1857	1199	1870	0				1854	1716	1486
Q Serve(g_s), s	0.0	0.0	5.6	5.9	1.3	0.0				8.2	7.2	0.2
Cycle Q Clear(g_c), s	0.0	0.0	5.6	11.6	1.3	0.0				8.2	7.2	0.2
Prop In Lane	0.00		0.10	1.00		0.00				0.33		1.00
Lane Grp Cap(c), veh/h	0	0	557	366	561	0				1086	2010	870
V/C Ratio(X)	0.00	0.00	0.34	0.32	0.09	0.00				0.38	0.34	0.01
Avail Cap(c_a), veh/h	0	0	557	366	561	0				1086	2010	870
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.96	0.96	0.96	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	19.1	23.6	17.6	0.0				7.8	7.5	6.1
Incr Delay (d2), s/veh	0.0	0.0	1.6	2.2	0.3	0.0				1.0	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	2.5	1.8	0.6	0.0				3.0	2.3	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	20.7	25.8	17.9	0.0				8.8	8.0	6.1
LnGrp LOS	A	A	C	C	B	A				A	A	A
Approach Vol, veh/h		192			166						1105	
Approach Delay, s/veh		20.7			23.5						8.2	
Approach LOS		C			C						A	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	45.0	25.0	25.0
Change Period (Y+Rc), s	* 4.8	4.0	4.0
Max Green Setting (Gmax), s	* 40	21.0	21.0
Max Q Clear Time (g_c+I1), s	10.2	7.6	13.6
Green Ext Time (p_c), s	2.0	0.2	0.1

Intersection Summary	
HCM 6th Ctrl Delay	11.6
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	190	0	0	90	50	45	860	190	0	0	0
Future Volume (veh/h)	60	190	0	0	90	50	45	860	190	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		0.97	1.00		0.94			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1870	1870	1885	1900			
Adj Flow Rate, veh/h	66	209	0	0	99	55	49	945	209			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91			
Percent Heavy Veh, %	0	0	0	0	0	2	2	1	0			
Cap, veh/h	372	543	0	0	324	180	145	2984	889			
Arrive On Green	0.19	0.19	0.00	0.00	0.29	0.29	0.59	0.59	0.59			
Sat Flow, veh/h	1238	1900	0	0	1132	629	246	5058	1506			
Grp Volume(v), veh/h	66	209	0	0	0	154	373	621	209			
Grp Sat Flow(s),veh/h/ln	1238	1900	0	0	0	1761	1873	1716	1506			
Q Serve(g_s), s	3.3	6.7	0.0	0.0	0.0	4.8	7.1	6.3	4.6			
Cycle Q Clear(g_c), s	8.1	6.7	0.0	0.0	0.0	4.8	7.1	6.3	4.6			
Prop In Lane	1.00		0.00	0.00		0.36	0.13		1.00			
Lane Grp Cap(c), veh/h	372	543	0	0	0	503	1105	2024	889			
V/C Ratio(X)	0.18	0.38	0.00	0.00	0.00	0.31	0.34	0.31	0.24			
Avail Cap(c_a), veh/h	372	543	0	0	0	503	1105	2024	889			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.95	0.95	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	25.6	22.9	0.0	0.0	0.0	19.6	7.3	7.2	6.8			
Incr Delay (d2), s/veh	1.0	2.0	0.0	0.0	0.0	1.6	0.8	0.4	0.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.1	3.3	0.0	0.0	0.0	2.1	2.6	2.0	1.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.6	24.9	0.0	0.0	0.0	21.1	8.2	7.6	7.5			
LnGrp LOS	C	C	A	A	A	C	A	A	A			
Approach Vol, veh/h		275			154			1203				
Approach Delay, s/veh		25.3			21.1			7.7				
Approach LOS		C			C			A				

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	46.0	24.0	24.0
Change Period (Y+Rc), s	* 4.7	4.0	4.0
Max Green Setting (Gmax), s	* 41	20.0	20.0
Max Q Clear Time (g_c+I1), s	9.1	10.1	6.8
Green Ext Time (p_c), s	1.3	0.2	0.1

Intersection Summary	
HCM 6th Ctrl Delay	12.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection ID and Name	use dropdown NB PhasingType	use dropdown SB PhasingType	use dropdown EB PhasingType	use dropdown WB PhasingType	Cycle Length	Lost Time	use dropdown Use Overlap Calculator	use dropdov NBR Overla	use dropdov SBR Overlap	use dropdov EBR Overlap	use dropdov WBR Overla
6: SE Water Avenue & SE Clay Street	Permitted	Permitted		Permitted	80	8	No				
7: SE Martin Luther King Jr. Boulevard & SE Stark Street		Protected	Protected	Protected	70	8	No	No	No	No	No
8: SE Grand Avenue & SE Stark Street/ SE S	Protected		Protected	Protected	70	8	No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				

BEGIN CALCULATIONS	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		Critical Flow Calculator WBL/EBT	EBL/WBT	NBL/SBT	SBL/NBT	V/S E/W	V/S N/S
1	3	4	5	6	7	8	9	10	11	12	13	14							
Adj Flow Rate, veh/h	0	0	0	11	0	17	0	34	34	52	69	0	Protected	0.01	0.01	0.05	0.14		
Sat Flow, veh/h	0	0	0	1810	0	1605	0	1900	1571	448	1270	0	Permitted or Split	0.00	0.01	0.12	0.02		
V/S	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.02	0.02	0.12	0.05	0.00	selected phasing	0.00	0.01	0.12	0.02	0.01	0.12
Adj Flow Rate, veh/h	0	173	19	117	49	0	0	0	0	136	957	12	Protected	0.20	0.03	0.21	0.22		
Sat Flow, veh/h	0	1673	184	1199	1870	0	0	0	0	619	4666	1486	Permitted or Split	0.10	0.10	0.22	0.00		
V/S	0.00	0.10	0.10	0.10	0.03	0.00	0.00	0.00	0.00	0.22	0.21	0.01	selected phasing	0.20	0.03	0.22	0.22	0.20	0.22
Adj Flow Rate, veh/h	66	209	0	0	99	55	49	945	209	0	0	0	Protected	0.11	0.14	0.20	0.19		
Sat Flow, veh/h	1238	1900	0	0	1132	629	246	5058	1506	0	0	0	Permitted or Split	0.11	0.09	0.00	0.20		
V/S	0.05	0.11	0.00	0.00	0.09	0.09	0.20	0.19	0.14	0.00	0.00	0.00	selected phasing	0.11	0.14	0.20	0.20	0.14	0.20
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00

Overlap Critical Flow Calculator	NBR OV	NB OV V/S	SBR OV	SB OV V/S	EBR OV	EB OV V/S	WBR OV	WB OV V/S	V/S Overlap		Intersection V/C	HCM 6th Ctrl Delay	HCM 6th LOS	Synchro ID
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	Permitted	0.00	Permitted	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.01	0.00	0.01	Permitted	0.05	Permitted	0.05	N/A		**0.14**	**4**	**A**	6
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	Protected	0.10	Protected	0.10	No OV					
Overlap Approach Phasing	Protected	0.10	Protected	0.10	0.00	0.21	0.00	0.21	N/A		**0.47**	**12**	**B**	7
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	Protected	0.20	Protected	0.20	Protected	0.05	Protected	0.05	No OV					
Overlap Approach Phasing	Protected	0.11	Protected	0.11	Protected	0.19	Protected	0.19	N/A		**0.38**	**12**	**B**	8
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	

List of Phasing Types
Protected
Permitted
Split

List of Overlap Types
Yes
No

Sheet Description:
This sheet reads in the adjusted flow rate and the saturation flow rate from Synchro and divides them to calculated the V/S for each movement.
The critical flow calculator calculates the critical v/s for each conflicting phase pair.
for protected phases, this v/s is the left turn v/s plus the max of the opposing movement v/s
for the permitted and split phases, this v/s is the max of the three movement v/s
The next step selects the proper v/s based on phasing provided
V/S by east-west and north-south is selected by taking the max of the phase pairs or by adding them (if split phasing)
If overlap calculator was selected in input section and overlap phases were indicated, then overlap v/s for intersection is calculated. See details below
If the right turn v/s is greater than the through v/s for the right turn overlap approach, then the right turn is assumed the critical movement and intersection v/c calc will use the v/s overlap instead of approach v
The final step in v/c calculation uses the approach v/s ratios, cycle length, and lost time to calculate overall intersection v/c
Delay and LOS are read directly from the HCM 6 report

Overlap Calculator Details
Overlap calculator reads in whether an overlap phase is in use and what type of phasing is associated with the right turn approach and the overlapped approach
V/S is read in for right turn movement, and remaining approaches from previous calculations
-right turn overlap v/s is just the v/s for the right turn movement (i.e. NBR)
-right turn approach v/s is the critical v/s associated with the right turn approaches (i.e. NB/SB) and is calculated differently for protected vs split
-overlap approach v/s is the critical v/s associated with the overlap approaches (i.e. EB/WB) and is calculated differently for protected vs split phasing
The v/s overlap column sums the 3 v/s values for the overlap phasing to get the total v/s overlap to be used in the v/c calculation
If there are overlaps for both approaches (i.e. N/S or E/W), the v/s overlap will use the greater of the two for most conservative approach
Use Overlap Calculator' must be enabled and 'Use OV V/S' must be showing in V/S Overlap column in order for overlap v/s to be used in final v/c calculation

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	10	0	100	25	0
Future Vol, veh/h	10	10	0	100	25	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	1	0	0
Mvmt Flow	12	12	0	116	29	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	145	29	-	0	-	0
Stage 1	29	-	-	-	-	-
Stage 2	116	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	852	1052	0	-	-	0
Stage 1	999	-	0	-	-	0
Stage 2	914	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	852	1052	-	-	-	-
Mov Cap-2 Maneuver	852	-	-	-	-	-
Stage 1	999	-	-	-	-	-
Stage 2	914	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	941	-
HCM Lane V/C Ratio	-	0.025	-
HCM Control Delay (s)	-	8.9	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	75	65	110	5	0	5	0	20	5	5	30	0
Future Vol, veh/h	75	65	110	5	0	5	0	20	5	5	30	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	1	0	0	0	0	0	0	0	0	0
Mvmt Flow	86	75	126	6	0	6	0	23	6	6	34	0
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	8.3	7.3	7.7	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	0%	54%	0%	50%	14%
Vol Thru, %	80%	46%	0%	0%	86%
Vol Right, %	20%	0%	100%	50%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	25	140	110	10	35
LT Vol	0	75	0	5	5
Through Vol	20	65	0	0	30
RT Vol	5	0	110	5	0
Lane Flow Rate	29	161	126	11	40
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.036	0.219	0.138	0.014	0.052
Departure Headway (Hd)	4.484	4.895	3.927	4.245	4.617
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	803	731	907	847	780
Service Time	2.488	2.649	1.679	2.253	2.621
HCM Lane V/C Ratio	0.036	0.22	0.139	0.013	0.051
HCM Control Delay	7.7	9	7.3	7.3	7.9
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.1	0.8	0.5	0	0.2

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	5	10	5	5	5	5	20	5	10	75	10
Future Vol, veh/h	5	5	10	5	5	5	5	20	5	10	75	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	8	0	0	1	0
Mvmt Flow	6	6	12	6	6	6	6	24	6	12	91	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	166	163	97	169	166	27	103	0	0	30	0	0
Stage 1	121	121	-	39	39	-	-	-	-	-	-	-
Stage 2	45	42	-	130	127	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	803	733	965	799	730	1054	1502	-	-	1596	-	-
Stage 1	888	800	-	981	866	-	-	-	-	-	-	-
Stage 2	974	864	-	878	795	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	786	724	965	777	721	1054	1502	-	-	1596	-	-
Mov Cap-2 Maneuver	786	724	-	777	721	-	-	-	-	-	-	-
Stage 1	884	794	-	977	863	-	-	-	-	-	-	-
Stage 2	958	861	-	853	789	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	9.4	1.2	0.8
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1502	-	-	846	828	1596	-	-
HCM Lane V/C Ratio	0.004	-	-	0.029	0.022	0.008	-	-
HCM Control Delay (s)	7.4	0	-	9.4	9.4	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	5	5	5	5	5	5	5	20	5	15	70	5
Future Vol, veh/h	5	5	5	5	5	5	5	20	5	15	70	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	1	0
Mvmt Flow	6	6	6	6	6	6	6	24	6	18	83	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	167	164	86	167	164	27	89	0	0	30	0	0
Stage 1	122	122	-	39	39	-	-	-	-	-	-	-
Stage 2	45	42	-	128	125	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	802	732	978	802	732	1054	1519	-	-	1596	-	-
Stage 1	887	799	-	981	866	-	-	-	-	-	-	-
Stage 2	974	864	-	881	796	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	783	720	978	783	720	1054	1519	-	-	1596	-	-
Mov Cap-2 Maneuver	783	720	-	783	720	-	-	-	-	-	-	-
Stage 1	883	789	-	977	863	-	-	-	-	-	-	-
Stage 2	958	861	-	859	786	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	9.4	1.2	1.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1519	-	-	813	830	1596	-	-
HCM Lane V/C Ratio	0.004	-	-	0.022	0.022	0.011	-	-
HCM Control Delay (s)	7.4	0	-	9.5	9.4	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

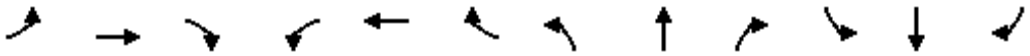
Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	0	0	0	0	0	5	15	5	5	50	30
Future Vol, veh/h	5	0	0	0	0	0	5	15	5	5	50	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	6	0	0	0	0	0	6	17	6	6	57	34

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	118	121	74	91	0	0	23	0	0
Stage 1	86	86	-	-	-	-	-	-	-
Stage 2	32	35	-	-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	883	773	993	1517	-	-	1605	-	-
Stage 1	942	827	-	-	-	-	-	-	-
Stage 2	996	870	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	876	0	993	1517	-	-	1605	-	-
Mov Cap-2 Maneuver	876	0	-	-	-	-	-	-	-
Stage 1	938	0	-	-	-	-	-	-	-
Stage 2	992	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	1.5	0.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1517	-	-	876	-	1605	-	-
HCM Lane V/C Ratio	0.004	-	-	0.007	-	0.004	-	-
HCM Control Delay (s)	7.4	0	-	9.1	0	7.3	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	5	0	10	0	15	10	30	20	0
Future Volume (veh/h)	0	0	0	5	0	10	0	15	10	30	20	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1900	1900	1900	1796	0
Adj Flow Rate, veh/h				6	0	12	0	18	12	37	24	0
Peak Hour Factor				0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %				0	0	0	0	0	0	0	7	0
Cap, veh/h				88	0	77	0	420	356	719	124	0
Arrive On Green				0.05	0.00	0.05	0.00	0.22	0.22	0.22	0.22	0.00
Sat Flow, veh/h				1810	0	1577	0	1900	1610	866	562	0
Grp Volume(v), veh/h				6	0	12	0	18	12	61	0	0
Grp Sat Flow(s),veh/h/ln				1810	0	1577	0	1900	1610	1428	0	0
Q Serve(g_s), s				0.0	0.0	0.1	0.0	0.1	0.1	0.4	0.0	0.0
Cycle Q Clear(g_c), s				0.0	0.0	0.1	0.0	0.1	0.1	0.5	0.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.61		0.00
Lane Grp Cap(c), veh/h				88	0	77	0	420	356	843	0	0
V/C Ratio(X)				0.07	0.00	0.16	0.00	0.04	0.03	0.07	0.00	0.00
Avail Cap(c_a), veh/h				5949	0	5185	0	6246	5293	5374	0	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh				5.0	0.0	5.0	0.0	3.4	3.3	3.5	0.0	0.0
Incr Delay (d2), s/veh				0.5	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				5.4	0.0	6.3	0.0	3.4	3.4	3.5	0.0	0.0
LnGrp LOS				A	A	A	A	A	A	A	A	A
Approach Vol, veh/h					18			30			61	
Approach Delay, s/veh					6.0			3.4			3.5	
Approach LOS					A			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	6.4		6.4		4.5			
Change Period (Y+Rc), s	4.0		4.0		4.0			
Max Green Setting (Gmax), s	36.0		36.0		36.0			
Max Q Clear Time (g_c+I1), s	2.1		2.5		2.1			
Green Ext Time (p_c), s	0.1		0.2		0.1			

Intersection Summary		
HCM 6th Ctrl Delay	3.9	
HCM 6th LOS	A	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	75	10	70	40	0	0	0	0	85	595	15
Future Volume (veh/h)	0	75	10	70	40	0	0	0	0	85	595	15
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1885	1900	1767	0				1900	1885	1900
Adj Flow Rate, veh/h	0	80	11	74	43	0				90	633	16
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	1	0	9	0				0	1	0
Cap, veh/h	0	489	67	452	530	0				362	2734	916
Arrive On Green	0.00	0.30	0.30	0.30	0.30	0.00				0.57	0.59	0.59
Sat Flow, veh/h	0	1628	224	1323	1767	0				618	4667	1564
Grp Volume(v), veh/h	0	0	91	74	43	0				270	453	16
Grp Sat Flow(s),veh/h/ln	0	0	1852	1323	1767	0				1854	1716	1564
Q Serve(g_s), s	0.0	0.0	2.5	3.1	1.2	0.0				5.0	4.4	0.3
Cycle Q Clear(g_c), s	0.0	0.0	2.5	5.6	1.2	0.0				5.0	4.4	0.3
Prop In Lane	0.00		0.12	1.00		0.00				0.33		1.00
Lane Grp Cap(c), veh/h	0	0	556	452	530	0				1086	2010	916
V/C Ratio(X)	0.00	0.00	0.16	0.16	0.08	0.00				0.25	0.23	0.02
Avail Cap(c_a), veh/h	0	0	556	452	530	0				1086	2010	916
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.99	0.97	0.97	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	18.0	20.1	17.6	0.0				7.1	6.9	6.1
Incr Delay (d2), s/veh	0.0	0.0	0.6	0.8	0.3	0.0				0.5	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.1	1.0	0.5	0.0				1.8	1.4	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	18.7	20.8	17.9	0.0				7.7	7.2	6.1
LnGrp LOS	A	A	B	C	B	A				A	A	A
Approach Vol, veh/h		91			117						739	
Approach Delay, s/veh		18.7			19.8						7.3	
Approach LOS		B			B						A	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	45.0	25.0	25.0
Change Period (Y+Rc), s	* 4.8	4.0	4.0
Max Green Setting (Gmax), s	* 40	21.0	21.0
Max Q Clear Time (g_c+I1), s	7.0	4.5	7.6
Green Ext Time (p_c), s	1.2	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	10.0
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	120	0	0	80	60	30	605	85	0	0	0
Future Volume (veh/h)	40	120	0	0	80	60	30	605	85	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	0.98		1.00	1.00		0.96	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1885	1900	1900	1885	1900			
Adj Flow Rate, veh/h	43	128	0	0	85	64	32	644	90			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	0	0	0	0	1	0	0	1	0			
Cap, veh/h	372	543	0	0	280	211	139	2990	940			
Arrive On Green	0.09	0.09	0.00	0.00	0.29	0.29	0.59	0.59	0.59			
Sat Flow, veh/h	1236	1900	0	0	980	738	236	5068	1592			
Grp Volume(v), veh/h	43	128	0	0	0	149	254	422	90			
Grp Sat Flow(s),veh/h/ln	1236	1900	0	0	0	1717	1873	1716	1592			
Q Serve(g_s), s	2.3	4.4	0.0	0.0	0.0	4.8	4.5	4.0	1.7			
Cycle Q Clear(g_c), s	7.0	4.4	0.0	0.0	0.0	4.8	4.5	4.0	1.7			
Prop In Lane	1.00		0.00	0.00		0.43	0.13		1.00			
Lane Grp Cap(c), veh/h	372	543	0	0	0	491	1105	2024	940			
V/C Ratio(X)	0.12	0.24	0.00	0.00	0.00	0.30	0.23	0.21	0.10			
Avail Cap(c_a), veh/h	372	543	0	0	0	491	1105	2024	940			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.99	0.99	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	28.1	24.6	0.0	0.0	0.0	19.6	6.8	6.7	6.2			
Incr Delay (d2), s/veh	0.6	1.0	0.0	0.0	0.0	1.6	0.5	0.2	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.8	2.1	0.0	0.0	0.0	2.0	1.6	1.3	0.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.7	25.6	0.0	0.0	0.0	21.1	7.3	6.9	6.4			
LnGrp LOS	C	C	A	A	A	C	A	A	A			
Approach Vol, veh/h		171			149			766				
Approach Delay, s/veh		26.4			21.1			7.0				
Approach LOS		C			C			A				

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	46.0	24.0	24.0
Change Period (Y+Rc), s	* 4.7	4.0	4.0
Max Green Setting (Gmax), s	* 41	20.0	20.0
Max Q Clear Time (g_c+I1), s	6.5	9.0	6.8
Green Ext Time (p_c), s	0.8	0.1	0.1

Intersection Summary	
HCM 6th Ctrl Delay	12.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection ID and Name	use dropdown NB PhasingType	use dropdown SB PhasingType	use dropdown EB PhasingType	use dropdown WB PhasingType	Cycle Length	Lost Time	use dropdown Use Overlap Calculator	use dropdow NBR Overla	use dropdow SBR Overlap	use dropdow EBR Overlap	use dropdow WBR Overla	BEGIN CALCULATIONS
6: SE Water Avenue & SE Clay Street	Permitted	Permitted		Permitted	80	8	No					
7: SE Martin Luther King Jr. Boulevard & SE Stark Street		Protected	Protected	Protected	70	8	No	No	No	No	No	
8: SE Grand Avenue & SE Stark Street/ SE S	Protected		Protected	Protected	70	8	No					
							No					
							No					
							No					
							No					
							No					
							No					
							No					
							No					
							No					
							No					

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		Critical Flow Calculator WBL/EBT	EBL/WBT	NBL/SBT	SBL/NBT	V/S E/W	V/S N/S
1	3	4	5	6	7	8	9	10	11	12	13	14							
Adj Flow Rate, veh/h	0	0	0	6	0	12	0	18	12	37	24	0	Protected	0.00	0.01	0.04	0.05		
Sat Flow, veh/h	0	0	0	1810	0	1577	0	1900	1610	866	562	0	Permitted or Split	0.00	0.01	0.04	0.01		
V/S	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.04	0.04	0.00	selected phasing	0.00	0.01	0.04	0.01	0.01	0.04
Adj Flow Rate, veh/h	0	80	11	74	43	0	0	0	0	90	633	16	Protected	0.11	0.02	0.14	0.15		
Sat Flow, veh/h	0	1628	224	1323	1767	0	0	0	0	618	4667	1564	Permitted or Split	0.05	0.06	0.15	0.00		
V/S	0.00	0.05	0.05	0.06	0.02	0.00	0.00	0.00	0.00	0.15	0.14	0.01	selected phasing	0.11	0.02	0.15	0.15	0.11	0.15
Adj Flow Rate, veh/h	43	128	0	0	85	64	32	644	90	0	0	0	Protected	0.07	0.12	0.14	0.13		
Sat Flow, veh/h	1236	1900	0	0	980	738	236	5068	1592	0	0	0	Permitted or Split	0.07	0.09	0.00	0.14		
V/S	0.03	0.07	0.00	0.00	0.09	0.09	0.14	0.13	0.06	0.00	0.00	0.00	selected phasing	0.07	0.12	0.14	0.14	0.12	0.14
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00

Overlap Critical Flow Calculator	NBR OV	NB OV V/S	SBR OV	SB OV V/S	EBR OV	EB OV V/S	WBR OV	WB OV V/S	V/S Overlap		Intersection V/C	HCM 6th Ctrl Delay	HCM 6th LOS	Synchro ID
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	Permitted	0.00	Permitted	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.01	0.00	0.01	Permitted	0.04	Permitted	0.04	N/A		**0.06**	**4**	**A**	6
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	Protected	0.06	Protected	0.06	No OV					
Overlap Approach Phasing	Protected	0.05	Protected	0.05	0.00	0.14	0.00	0.14	N/A		**0.28**	**10**	**A**	7
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	Protected	0.14	Protected	0.14	Protected	0.03	Protected	0.03	No OV					
Overlap Approach Phasing	Protected	0.09	Protected	0.09	Protected	0.13	Protected	0.13	N/A		**0.29**	**12**	**B**	8
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	

List of Phasing Types
Protected
Permitted
Split

List of Overlap Types
Yes
No

Sheet Description:
This sheet reads in the adjusted flow rate and the saturation flow rate from Synchro and divides them to calculated the V/S for each movement.
The critical flow calculator calculates the critical v/s for each conflicting phase pair.
for protected phases, this v/s is the left turn v/s plus the max of the opposing movement v/s
for the permitted and split phases, this v/s is the max of the three movement v/s
The next step selects the proper v/s based on phasing provided
V/S by east-west and north-south is selected by taking the max of the phase pairs or by adding them (if split phasing)
If overlap calculator was selected in input section and overlap phases were indicated, then overlap v/s for intersection is calculated. See details below
If the right turn v/s is greater than the through v/s for the right turn overlap approach, then the right turn is assumed the critical movement and intersection v/c calc will use the v/s overlap instead of approach v/
The final step in v/c calculation uses the approach v/s ratios, cycle length, and lost time to calculate overall intersection v/c
Delay and LOS are read directly from the HCM 6 report

Overlap Calculator Details
Overlap calculator reads in whether an overlap phase is in use and what type of phasing is associated with the right turn approach and the overlapped approach
V/S is read in for right turn movement, and remaining approaches from previous calculations
-right turn overlap v/s is just the v/s for the right turn movement (i.e. NBR)
-right turn approach v/s is the critical v/s associated with the right turn approaches (i.e. NB/SB) and is calculated differently for protected vs split
-overlap approach v/s is the critical v/s associated with the overlap approaches (i.e. EB/WB) and is calculated differently for protected vs split phasing
The v/s overlap column sums the 3 v/s values for the overlap phasing to get the total v/s overlap to be used in the v/c calculation
If there are overlaps for both approaches (i.e. N/S or E/W), the v/s overlap will use the greater of the two for most conservative approach
Use Overlap Calculator' must be enabled and 'Use OV V/S' must be showing in V/S Overlap column in order for overlap v/s to be used in final v/c calculation

SECTION 12: NO-BUILD INTERSECTION ANALYSIS REPORTS

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	15	0	230	30	0
Future Vol, veh/h	10	15	0	230	30	0
Conflicting Peds, #/hr	14	3	22	0	0	22
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	0	1	0	0	1	0
Mvmt Flow	12	19	0	284	37	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	335	40	-	0	-	0
Stage 1	37	-	-	-	-	-
Stage 2	298	-	-	-	-	-
Critical Hdwy	6.4	6.21	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.309	-	-	-	-
Pot Cap-1 Maneuver	664	1034	0	-	-	0
Stage 1	991	-	0	-	-	0
Stage 2	758	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	664	1031	-	-	-	-
Mov Cap-2 Maneuver	664	-	-	-	-	-
Stage 1	991	-	-	-	-	-
Stage 2	758	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	844	-
HCM Lane V/C Ratio	-	0.037	-
HCM Control Delay (s)	-	9.4	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	185	85	170	10	0	15	0	30	15	10	35	0
Future Vol, veh/h	185	85	170	10	0	15	0	30	15	10	35	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	1	0	2	0	0	0	0	2	0	0	0	0
Mvmt Flow	197	90	181	11	0	16	0	32	16	11	37	0
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	9.9	7.6	8.2	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	0%	69%	0%	40%	22%
Vol Thru, %	67%	31%	0%	0%	78%
Vol Right, %	33%	0%	100%	60%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	45	270	170	25	45
LT Vol	0	185	0	10	10
Through Vol	30	85	0	0	35
RT Vol	15	0	170	15	0
Lane Flow Rate	48	287	181	27	48
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.065	0.402	0.2	0.033	0.067
Departure Headway (Hd)	4.861	5.043	3.981	4.417	5.07
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	740	704	886	812	709
Service Time	2.869	2.839	1.776	2.437	3.079
HCM Lane V/C Ratio	0.065	0.408	0.204	0.033	0.068
HCM Control Delay	8.2	11.3	7.8	7.6	8.4
HCM Lane LOS	A	B	A	A	A
HCM 95th-tile Q	0.2	1.9	0.7	0.1	0.2

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	5	5	5	5	0	40	5	5	125	5
Future Vol, veh/h	5	0	5	5	5	5	0	40	5	5	125	5
Conflicting Peds, #/hr	1	0	2	2	0	1	2	0	10	10	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	20	1	0
Mvmt Flow	6	0	6	6	6	6	0	47	6	6	145	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	219	225	152	225	225	61	153	0	0	63	0	0
Stage 1	162	162	-	60	60	-	-	-	-	-	-	-
Stage 2	57	63	-	165	165	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.3	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.38	-	-
Pot Cap-1 Maneuver	741	678	900	735	678	1010	1440	-	-	1432	-	-
Stage 1	845	768	-	957	849	-	-	-	-	-	-	-
Stage 2	960	846	-	842	766	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	727	666	897	719	666	999	1437	-	-	1418	-	-
Mov Cap-2 Maneuver	727	666	-	719	666	-	-	-	-	-	-	-
Stage 1	843	763	-	947	841	-	-	-	-	-	-	-
Stage 2	947	838	-	831	761	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	9.8	0	0.3
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1437	-	-	803	771	1418	-	-
HCM Lane V/C Ratio	-	-	-	0.014	0.023	0.004	-	-
HCM Control Delay (s)	0	-	-	9.5	9.8	7.5	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	5	15	5	10	0	30	10	20	110	5
Future Vol, veh/h	5	0	5	15	5	10	0	30	10	20	110	5
Conflicting Peds, #/hr	1	0	5	5	0	1	3	0	11	11	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	6	0	6	18	6	12	0	36	12	24	131	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	237	244	142	243	241	54	140	0	0	59	0	0
Stage 1	185	185	-	53	53	-	-	-	-	-	-	-
Stage 2	52	59	-	190	188	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	722	661	911	715	664	1019	1456	-	-	1558	-	-
Stage 1	821	751	-	965	855	-	-	-	-	-	-	-
Stage 2	966	850	-	816	748	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	697	641	904	691	644	1007	1452	-	-	1542	-	-
Mov Cap-2 Maneuver	697	641	-	691	644	-	-	-	-	-	-	-
Stage 1	819	736	-	955	846	-	-	-	-	-	-	-
Stage 2	947	842	-	793	733	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.6	10	0	1.1
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1452	-	-	787	761	1542	-	-
HCM Lane V/C Ratio	-	-	-	0.015	0.047	0.015	-	-
HCM Control Delay (s)	0	-	-	9.6	10	7.4	0	-
HCM Lane LOS	A	-	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

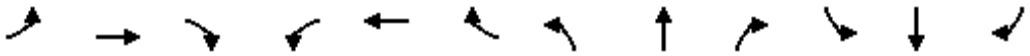
Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	5	5	0	0	0	10	20	5	15	85	40
Future Vol, veh/h	10	5	5	0	0	0	10	20	5	15	85	40
Conflicting Peds, #/hr	1	0	1	1	0	1	9	0	7	7	0	9
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	8	1	0
Mvmt Flow	14	7	7	0	0	0	14	27	7	21	116	55

Major/Minor	Minor2					Major1			Major2		
Conflicting Flow All	255	264	154			180	0	0	41	0	0
Stage 1	195	195	-			-	-	-	-	-	-
Stage 2	60	69	-			-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2			4.1	-	-	4.18	-	-
Critical Hdwy Stg 1	5.4	5.5	-			-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-			-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3			2.2	-	-	2.272	-	-
Pot Cap-1 Maneuver	738	645	897			1408	-	-	1530	-	-
Stage 1	843	743	-			-	-	-	-	-	-
Stage 2	968	841	-			-	-	-	-	-	-
Platoon blocked, %							-	-		-	-
Mov Cap-1 Maneuver	707	0	888			1396	-	-	1530	-	-
Mov Cap-2 Maneuver	707	0	-			-	-	-	-	-	-
Stage 1	827	0	-			-	-	-	-	-	-
Stage 2	946	0	-			-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	2.2	0.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1396	-	-	707	888	1530	-	-
HCM Lane V/C Ratio	0.01	-	-	0.029	0.008	0.013	-	-
HCM Control Delay (s)	7.6	0	-	10.2	9.1	7.4	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	10	0	10	0	25	30	45	45	0
Future Volume (veh/h)	0	0	0	10	0	10	0	25	30	45	45	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		0.97	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1870	1900	1885	1900	0
Adj Flow Rate, veh/h				12	0	12	0	30	36	54	54	0
Peak Hour Factor				0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %				0	0	0	0	2	0	1	0	0
Cap, veh/h				151	0	131	0	662	554	569	408	0
Arrive On Green				0.08	0.00	0.08	0.00	0.35	0.35	0.35	0.35	0.00
Sat Flow, veh/h				1810	0	1568	0	1870	1563	534	1151	0
Grp Volume(v), veh/h				12	0	12	0	30	36	108	0	0
Grp Sat Flow(s),veh/h/ln				1810	0	1568	0	1870	1563	1685	0	0
Q Serve(g_s), s				0.1	0.0	0.1	0.0	0.1	0.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s				0.1	0.0	0.1	0.0	0.1	0.2	0.6	0.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.50		0.00
Lane Grp Cap(c), veh/h				151	0	131	0	662	554	976	0	0
V/C Ratio(X)				0.08	0.00	0.09	0.00	0.05	0.07	0.11	0.00	0.00
Avail Cap(c_a), veh/h				4581	0	3970	0	4735	3957	4420	0	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh				6.0	0.0	6.0	0.0	3.0	3.0	3.1	0.0	0.0
Incr Delay (d2), s/veh				0.3	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				6.3	0.0	6.4	0.0	3.0	3.1	3.2	0.0	0.0
LnGrp LOS				A	A	A	A	A	A	A	A	A
Approach Vol, veh/h					24			66			108	
Approach Delay, s/veh					6.4			3.0			3.2	
Approach LOS					A			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	9.0		9.0		5.2			
Change Period (Y+Rc), s	4.0		4.0		4.0			
Max Green Setting (Gmax), s	36.0		36.0		36.0			
Max Q Clear Time (g_c+I1), s	2.2		2.6		2.1			
Green Ext Time (p_c), s	0.3		0.4		0.1			

Intersection Summary		
HCM 6th Ctrl Delay		3.5
HCM 6th LOS		A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	115	10	90	25	0	0	0	0	110	780	10
Future Volume (veh/h)	0	115	10	90	25	0	0	0	0	110	780	10
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00				1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1885	1900	1826	0				1900	1885	1900
Adj Flow Rate, veh/h	0	142	12	111	31	0				136	963	12
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81				0.81	0.81	0.81
Percent Heavy Veh, %	0	0	1	0	5	0				0	1	0
Cap, veh/h	0	1009	85	789	1069	0				185	1401	449
Arrive On Green	0.00	0.59	0.59	0.59	0.59	0.00				0.29	0.30	0.30
Sat Flow, veh/h	0	1722	146	1250	1826	0				615	4670	1495
Grp Volume(v), veh/h	0	0	154	111	31	0				410	689	12
Grp Sat Flow(s),veh/h/ln	0	0	1868	1250	1826	0				1854	1716	1495
Q Serve(g_s), s	0.0	0.0	2.6	3.1	0.5	0.0				13.9	12.3	0.4
Cycle Q Clear(g_c), s	0.0	0.0	2.6	5.7	0.5	0.0				13.9	12.3	0.4
Prop In Lane	0.00		0.08	1.00		0.00				0.33		1.00
Lane Grp Cap(c), veh/h	0	0	1094	789	1069	0				556	1029	449
V/C Ratio(X)	0.00	0.00	0.14	0.14	0.03	0.00				0.74	0.67	0.03
Avail Cap(c_a), veh/h	0	0	1094	789	1069	0				556	1029	449
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.92	0.96	0.96	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	6.5	7.8	6.1	0.0				22.1	21.5	17.3
Incr Delay (d2), s/veh	0.0	0.0	0.2	0.4	0.0	0.0				8.4	3.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.9	0.8	0.2	0.0				7.0	5.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	6.8	8.2	6.2	0.0				30.6	24.9	17.4
LnGrp LOS	A	A	A	A	A	A				C	C	B
Approach Vol, veh/h		154			142						1111	
Approach Delay, s/veh		6.8			7.7						26.9	
Approach LOS		A			A						C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	25.0	45.0	45.0
Change Period (Y+Rc), s	* 4.8	4.0	4.0
Max Green Setting (Gmax), s	* 20	41.0	41.0
Max Q Clear Time (g_c+I1), s	15.9	4.6	7.7
Green Ext Time (p_c), s	1.1	0.2	0.1

Intersection Summary	
HCM 6th Ctrl Delay	22.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	170	0	0	90	45	25	990	215	0	0	0
Future Volume (veh/h)	55	170	0	0	90	45	25	990	215	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	0.98		1.00	1.00		0.98	1.00		0.93			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1885	1900	1856	1870	1900			
Adj Flow Rate, veh/h	61	189	0	0	100	50	28	1100	239			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	0	0	0	0	1	0	3	2	0			
Cap, veh/h	374	543	0	0	336	168	74	3087	901			
Arrive On Green	0.09	0.09	0.00	0.00	0.29	0.29	0.59	0.60	0.60			
Sat Flow, veh/h	1236	1900	0	0	1175	588	123	5145	1501			
Grp Volume(v), veh/h	61	189	0	0	0	150	424	704	239			
Grp Sat Flow(s),veh/h/ln	1236	1900	0	0	0	1763	1864	1702	1501			
Q Serve(g_s), s	3.3	6.5	0.0	0.0	0.0	4.6	8.2	7.3	5.3			
Cycle Q Clear(g_c), s	7.9	6.5	0.0	0.0	0.0	4.6	8.2	7.3	5.3			
Prop In Lane	1.00		0.00	0.00		0.33	0.07		1.00			
Lane Grp Cap(c), veh/h	374	543	0	0	0	504	1119	2042	901			
V/C Ratio(X)	0.16	0.35	0.00	0.00	0.00	0.30	0.38	0.34	0.27			
Avail Cap(c_a), veh/h	374	543	0	0	0	504	1119	2042	901			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.99	0.99	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	28.4	25.6	0.0	0.0	0.0	19.5	7.3	7.1	6.7			
Incr Delay (d2), s/veh	0.9	1.7	0.0	0.0	0.0	1.5	1.0	0.5	0.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.1	3.3	0.0	0.0	0.0	2.0	3.0	2.3	1.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.3	27.3	0.0	0.0	0.0	21.0	8.2	7.5	7.4			
LnGrp LOS	C	C	A	A	A	C	A	A	A			
Approach Vol, veh/h		250			150			1367				
Approach Delay, s/veh		27.8			21.0			7.7				
Approach LOS		C			C			A				

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	46.0	24.0	24.0
Change Period (Y+Rc), s	* 4.7	4.0	4.0
Max Green Setting (Gmax), s	* 41	20.0	20.0
Max Q Clear Time (g_c+I1), s	10.2	9.9	6.6
Green Ext Time (p_c), s	1.5	0.1	0.1

Intersection Summary	
HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection ID and Name	use dropdown NB PhasingType	use dropdown SB PhasingType	use dropdown EB PhasingType	use dropdown WB PhasingType	Cycle Length	Lost Time	use dropdown Use Overlap Calculator	use dropdown NBR Overla	use dropdown SBR Overla	use dropdown EBR Overla	use dropdown WBR Overla
6: SE Water Avenue & SE Clay Street	Permitted	Permitted		Permitted	80	8	No				
7: SE Martin Luther King Jr. Boulevard & SE Stark Street		Protected	Protected	Protected	70	8	No	No	No	No	No
8: SE Grand Avenue & SE Stark Street/ SE S	Protected		Protected	Protected	70	8	No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				
							No				

BEGIN CALCULATIONS

1	3 EBL	4 EBT	5 EBR	6 WBL	7 WBT	8 WBR	9 NBL	10 NBT	11 NBR	12 SBL	13 SBT	14 SBR		Critical Flow Calculator WBL/EBT	EBL/WBT	NBL/SBT	SBL/NBT	V/S E/W	V/S N/S
Adj Flow Rate, veh/h	0	0	0	12	0	12	0	30	36	54	54	0	Protected	0.01	0.01	0.05	0.12		
Sat Flow, veh/h	0	0	0	1810	0	1568	0	1870	1563	534	1151	0	Permitted or Split	0.00	0.01	0.10	0.02		
V/S	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.02	0.02	0.10	0.05	0.00	selected phasing	0.00	0.01	0.10	0.02	0.01	0.10
Adj Flow Rate, veh/h	0	142	12	111	31	0	0	0	0	136	963	12	Protected	0.17	0.02	0.21	0.22		
Sat Flow, veh/h	0	1722	146	1250	1826	0	0	0	0	615	4670	1495	Permitted or Split	0.08	0.09	0.22	0.00		
V/S	0.00	0.08	0.08	0.09	0.02	0.00	0.00	0.00	0.00	0.22	0.21	0.01	selected phasing	0.17	0.02	0.22	0.22	0.17	0.22
Adj Flow Rate, veh/h	61	189	0	0	100	50	28	1100	239	0	0	0	Protected	0.10	0.13	0.23	0.21		
Sat Flow, veh/h	1236	1900	0	0	1175	588	123	5145	1501	0	0	0	Permitted or Split	0.10	0.09	0.00	0.23		
V/S	0.05	0.10	0.00	0.00	0.09	0.09	0.23	0.21	0.16	0.00	0.00	0.00	selected phasing	0.10	0.13	0.23	0.23	0.13	0.23
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00

Overlap Critical Flow Calculator	NBR OV	NB OV V/S	SBR OV	SB OV V/S	EBR OV	EB OV V/S	WBR OV	WB OV V/S	V/S Overlap		Intersection V/C	HCM 6th Ctrl Delay	HCM 6th LOS	Synchro ID
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	Permitted	0.00	Permitted	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.01	0.00	0.01	Permitted	0.05	Permitted	0.05	N/A		**0.12**	**4**	**A**	6
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	Protected	0.09	Protected	0.09	No OV					
Overlap Approach Phasing	Protected	0.08	Protected	0.08	0.00	0.21	0.00	0.21	N/A		**0.44**	**23**	**C**	7
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	Protected	0.23	Protected	0.23	Protected	0.05	Protected	0.05	No OV					
Overlap Approach Phasing	Protected	0.10	Protected	0.10	Protected	0.21	Protected	0.21	N/A		**0.41**	**12**	**B**	8
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	

List of Phasing Types
Protected
Permitted
Split

List of Overlap Types
Yes
No

Sheet Description:
This sheet reads in the adjusted flow rate and the saturation flow rate from Synchro and divides them to calculated the V/S for each movement.
The critical flow calculator calculates the critical v/s for each conflicting phase pair.
for protected phases, this v/s is the left turn v/s plus the max of the opposing movement v/s
for the permitted and split phases, this v/s is the max of the three movement v/s
The next step selects the proper v/s based on phasing provided
V/S by east-west and north-south is selected by taking the max of the phase pairs or by adding them (if split phasing)
If overlap calculator was selected in input section and overlap phases were indicated, then overlap v/s for intersection is calculated. See details below
If the right turn v/s is greater than the through v/s for the right turn overlap approach, then the right turn is assumed the critical movement and intersection v/c calc will use the v/s overlap instead of approach v/
The final step in v/c calculation uses the approach v/s ratios, cycle length, and lost time to calculate overall intersection v/c
Delay and LOS are read directly from the HCM 6 report

Overlap Calculator Details
Overlap calculator reads in whether an overlap phase is in use and what type of phasing is associated with the right turn approach and the overlapped approach
V/S is read in for right turn movement, and remaining approaches from previous calculations
-right turn overlap v/s is just the v/s for the right turn movement (i.e. NBR)
-right turn approach v/s is the critical v/s associated with the right turn approaches (i.e. NB/SB) and is calculated differently for protected vs split
-overlap approach v/s is the critical v/s associated with the overlap approaches (i.e. EB/WB) and is calculated differently for protected vs split phasing
The v/s overlap column sums the 3 v/s values for the overlap phasing to get the total v/s overlap to be used in the v/c calculation
If there are overlaps for both approaches (i.e. N/S or E/W), the v/s overlap will use the greater of the two for most conservative approach
Use Overlap Calculator' must be enabled and 'Use OV V/S' must be showing in V/S Overlap column in order for overlap v/s to be used in final v/c calculation

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	5	0	35	15	0
Future Vol, veh/h	5	5	0	35	15	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	55	55	55	55	55	55
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	9	0	64	27	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	91	27	-	0	-	0
Stage 1	27	-	-	-	-	-
Stage 2	64	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	914	1054	0	-	-	0
Stage 1	1001	-	0	-	-	0
Stage 2	964	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	914	1054	-	-	-	-
Mov Cap-2 Maneuver	914	-	-	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	964	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	979	-
HCM Lane V/C Ratio	-	0.019	-
HCM Control Delay (s)	-	8.7	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	20	30	0	0	5	0	5	5	5	15	0
Future Vol, veh/h	25	20	30	0	0	5	0	5	5	5	15	0
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	35	28	42	0	0	7	0	7	7	7	21	0
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	7.5	6.6	6.9	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	0%	56%	0%	0%	25%
Vol Thru, %	50%	44%	0%	0%	75%
Vol Right, %	50%	0%	100%	100%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	45	30	5	20
LT Vol	0	25	0	0	5
Through Vol	5	20	0	0	15
RT Vol	5	0	30	5	0
Lane Flow Rate	14	63	42	7	28
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.015	0.085	0.046	0.007	0.032
Departure Headway (Hd)	3.811	4.856	3.878	3.551	4.151
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	926	740	925	1001	853
Service Time	1.887	2.574	1.596	1.598	2.222
HCM Lane V/C Ratio	0.015	0.085	0.045	0.007	0.033
HCM Control Delay	6.9	8	6.8	6.6	7.4
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0	0.3	0.1	0	0.1

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	0	0	0	0	0	10	0	5	30	0
Future Vol, veh/h	5	0	0	0	0	0	0	10	0	5	30	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	7	0	0	0	0	0	0	14	0	7	43	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	71	71	43	71	71	14	43	0	0	14	0	0
Stage 1	57	57	-	14	14	-	-	-	-	-	-	-
Stage 2	14	14	-	57	57	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	925	823	1033	925	823	1072	1579	-	-	1617	-	-
Stage 1	960	851	-	1011	888	-	-	-	-	-	-	-
Stage 2	1011	888	-	960	851	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	922	820	1033	922	820	1072	1579	-	-	1617	-	-
Mov Cap-2 Maneuver	922	820	-	922	820	-	-	-	-	-	-	-
Stage 1	960	848	-	1011	888	-	-	-	-	-	-	-
Stage 2	1011	888	-	956	848	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.9	0	0	1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1579	-	-	922	-	1617	-	-
HCM Lane V/C Ratio	-	-	-	0.008	-	0.004	-	-
HCM Control Delay (s)	0	-	-	8.9	0	7.2	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	5	0	0	0	0	0	10	5	5	25	0
Future Vol, veh/h	0	5	0	0	0	0	0	10	5	5	25	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	0	0	51	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	7	0	0	0	0	0	14	7	7	36	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	68	71	36	72	68	18	36	0	0	21	0	0
Stage 1	50	50	-	18	18	-	-	-	-	-	-	-
Stage 2	18	21	-	54	50	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.71	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.759	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	930	823	912	924	826	1066	1588	-	-	1608	-	-
Stage 1	968	857	-	1006	884	-	-	-	-	-	-	-
Stage 2	1006	882	-	963	857	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	927	820	912	915	823	1066	1588	-	-	1608	-	-
Mov Cap-2 Maneuver	927	820	-	915	823	-	-	-	-	-	-	-
Stage 1	968	854	-	1006	884	-	-	-	-	-	-	-
Stage 2	1006	882	-	951	854	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	0	0	1.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1588	-	-	820	-	1608	-	-
HCM Lane V/C Ratio	-	-	-	0.009	-	0.004	-	-
HCM Control Delay (s)	0	-	-	9.4	0	7.2	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-

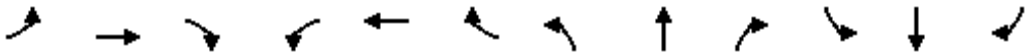
Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	0	0	10	5	5	5	20	15
Future Vol, veh/h	0	0	0	0	0	0	10	5	5	5	20	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	61	61	61	61	61	61	61	61	61
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0	16	8	8	8	33	25

Major/Minor	Minor2					Major1			Major2		
Conflicting Flow All	106	110	46			58	0	0	16	0	0
Stage 1	62	62	-			-	-	-	-	-	-
Stage 2	44	48	-			-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2			4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.4	5.5	-			-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-			-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3			2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	897	784	1029			1559	-	-	1615	-	-
Stage 1	966	847	-			-	-	-	-	-	-
Stage 2	984	859	-			-	-	-	-	-	-
Platoon blocked, %							-	-		-	-
Mov Cap-1 Maneuver	884	0	1029			1559	-	-	1615	-	-
Mov Cap-2 Maneuver	884	0	-			-	-	-	-	-	-
Stage 1	956	0	-			-	-	-	-	-	-
Stage 2	979	0	-			-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	3.7	0.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1559	-	-	-	-	1615	-	-
HCM Lane V/C Ratio	0.011	-	-	-	-	0.005	-	-
HCM Control Delay (s)	7.3	0	-	0	0	7.2	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	5	0	15	5	10	10	0
Future Volume (veh/h)	0	0	0	0	0	5	0	15	5	10	10	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1900	1900	1796	1900	0
Adj Flow Rate, veh/h				0	0	6	0	19	6	13	13	0
Peak Hour Factor				0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %				0	0	0	0	0	0	7	0	0
Cap, veh/h				30	0	27	0	252	214	674	100	0
Arrive On Green				0.00	0.00	0.02	0.00	0.13	0.13	0.13	0.13	0.00
Sat Flow, veh/h				1810	0	1610	0	1900	1610	755	755	0
Grp Volume(v), veh/h				0	0	6	0	19	6	26	0	0
Grp Sat Flow(s),veh/h/ln				1810	0	1610	0	1900	1610	1510	0	0
Q Serve(g_s), s				0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0
Cycle Q Clear(g_c), s				0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.50		0.00
Lane Grp Cap(c), veh/h				30	0	27	0	252	214	775	0	0
V/C Ratio(X)				0.00	0.00	0.23	0.00	0.08	0.03	0.03	0.00	0.00
Avail Cap(c_a), veh/h				6928	0	6165	0	7275	6165	6752	0	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh				0.0	0.0	4.6	0.0	3.6	3.6	3.7	0.0	0.0
Incr Delay (d2), s/veh				0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	10.5	0.0	3.6	3.6	3.7	0.0	0.0
LnGrp LOS				A	A	B	A	A	A	A	A	A
Approach Vol, veh/h					6			25			26	
Approach Delay, s/veh					10.5			3.6			3.7	
Approach LOS					B			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	5.2		5.2		4.2			
Change Period (Y+Rc), s	4.0		4.0		4.0			
Max Green Setting (Gmax), s	36.0		36.0		36.0			
Max Q Clear Time (g_c+I1), s	2.1		2.2		2.0			
Green Ext Time (p_c), s	0.1		0.1		0.0			

Intersection Summary		
HCM 6th Ctrl Delay	4.4	
HCM 6th LOS	A	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	15	5	40	5	0	0	0	0	50	340	5
Future Volume (veh/h)	0	15	5	40	5	0	0	0	0	50	340	5
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1870	1707
Adj Flow Rate, veh/h	0	20	7	53	7	0				66	447	7
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	2	13
Cap, veh/h	0	782	274	916	1113	0				190	1383	421
Arrive On Green	0.00	0.59	0.59	0.59	0.59	0.00				0.29	0.30	0.30
Sat Flow, veh/h	0	1335	467	1404	1900	0				632	4610	1402
Grp Volume(v), veh/h	0	0	27	53	7	0				192	321	7
Grp Sat Flow(s),veh/h/ln	0	0	1803	1404	1900	0				1839	1702	1402
Q Serve(g_s), s	0.0	0.0	0.4	1.2	0.1	0.0				5.7	5.1	0.2
Cycle Q Clear(g_c), s	0.0	0.0	0.4	1.6	0.1	0.0				5.7	5.1	0.2
Prop In Lane	0.00		0.26	1.00		0.00				0.34		1.00
Lane Grp Cap(c), veh/h	0	0	1056	916	1113	0				552	1021	421
V/C Ratio(X)	0.00	0.00	0.03	0.06	0.01	0.00				0.35	0.31	0.02
Avail Cap(c_a), veh/h	0	0	1056	916	1113	0				552	1021	421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	6.1	6.4	6.0	0.0				19.3	18.9	17.2
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.0				1.7	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.2	0.3	0.0	0.0				2.6	2.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	6.1	6.6	6.0	0.0				21.0	19.7	17.3
LnGrp LOS	A	A	A	A	A	A				C	B	B
Approach Vol, veh/h		27			60						520	
Approach Delay, s/veh		6.1			6.5						20.2	
Approach LOS		A			A						C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	25.0	45.0	45.0
Change Period (Y+Rc), s	* 4.8	4.0	4.0
Max Green Setting (Gmax), s	* 20	41.0	41.0
Max Q Clear Time (g_c+I1), s	7.7	2.4	3.6
Green Ext Time (p_c), s	0.8	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	18.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	50	0	0	35	25	10	350	35	0	0	0
Future Volume (veh/h)	15	50	0	0	35	25	10	350	35	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		0.98	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1870	1900			
Adj Flow Rate, veh/h	17	56	0	0	39	28	11	393	39			
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89			
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	0			
Cap, veh/h	449	543	0	0	291	209	81	3080	945			
Arrive On Green	0.29	0.29	0.00	0.00	0.29	0.29	0.59	0.60	0.60			
Sat Flow, veh/h	1344	1900	0	0	1018	731	135	5133	1576			
Grp Volume(v), veh/h	17	56	0	0	0	67	152	252	39			
Grp Sat Flow(s),veh/h/ln	1344	1900	0	0	0	1749	1864	1702	1576			
Q Serve(g_s), s	0.7	1.5	0.0	0.0	0.0	2.0	2.5	2.2	0.7			
Cycle Q Clear(g_c), s	2.7	1.5	0.0	0.0	0.0	2.0	2.5	2.2	0.7			
Prop In Lane	1.00		0.00	0.00		0.42	0.07		1.00			
Lane Grp Cap(c), veh/h	449	543	0	0	0	500	1118	2042	945			
V/C Ratio(X)	0.04	0.10	0.00	0.00	0.00	0.13	0.14	0.12	0.04			
Avail Cap(c_a), veh/h	449	543	0	0	0	500	1118	2042	945			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	19.6	18.4	0.0	0.0	0.0	18.6	6.1	6.0	5.7			
Incr Delay (d2), s/veh	0.2	0.4	0.0	0.0	0.0	0.6	0.3	0.1	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.2	0.7	0.0	0.0	0.0	0.8	0.9	0.7	0.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.7	18.8	0.0	0.0	0.0	19.1	6.4	6.2	5.8			
LnGrp LOS	B	B	A	A	A	B	A	A	A			
Approach Vol, veh/h		73			67			443				
Approach Delay, s/veh		19.0			19.1			6.2				
Approach LOS		B			B			A				

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	46.0	24.0	24.0
Change Period (Y+Rc), s	* 4.7	4.0	4.0
Max Green Setting (Gmax), s	* 41	20.0	20.0
Max Q Clear Time (g_c+I1), s	4.5	4.7	4.0
Green Ext Time (p_c), s	0.5	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	9.3
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection ID and Name	use dropdown NB PhasingType	use dropdown SB PhasingType	use dropdown EB PhasingType	use dropdown WB PhasingType	Cycle Length	Lost Time	use dropdow Use Overlap Calculator	use dropdow NBR Overla	use dropdow SBR Overlap	use dropdow EBR Overlap	use dropdow WBR Overla	use dropdo
6: SE Water Avenue & SE Clay Street	Permitted	Permitted		Permitted	80	8	No					
7: SE Martin Luther King Jr. Boulevard & SE Stark Street	Protected	Protected	Protected	Protected	70	8	No	No	No	No	No	
8: SE Grand Avenue & SE Stark Street/ SE 9 Protected		Protected	Protected		70	8	No					

BEGIN CALCULATIONS		1 EBL	3 EBT	4 EBR	5 WBL	6 WBT	7 WBR	8 NBL	9 NBT	10 NBR	11 SBL	12 SBT	13 SBR	14
	Adj Flow Rate, veh/h	0	0	0	0	0	6	0	19	6	13	13	0	Protected
	Sat Flow, veh/h	0	0	0	1810	0	1610	0	1900	1610	755	755	0	Permitted or Split
	V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.02	0.00	selected phasing
	Adj Flow Rate, veh/h	0	20	7	53	7	0	0	0	0	66	447	0	Protected
	Sat Flow, veh/h	0	1335	467	1404	1900	0	0	0	0	632	4610	1402	Permitted or Split
	V/S	0.00	0.01	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.00	selected phasing
	Adj Flow Rate, veh/h	17	56	0	0	39	28	11	393	39	0	0	0	Protected
	Sat Flow, veh/h	1344	1900	0	0	1018	731	135	5133	1576	0	0	0	Permitted or Split
	V/S	0.01	0.03	0.00	0.00	0.04	0.04	0.08	0.08	0.02	0.00	0.00	0.00	selected phasing
	Adj Flow Rate, veh/h													Protected
	Sat Flow, veh/h													Permitted or Split
	V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	20	0	225	45	0
Future Vol, veh/h	5	20	0	225	45	0
Conflicting Peds, #/hr	1	0	9	0	0	9
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	1	7	0
Mvmt Flow	7	26	0	296	59	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	356	59	-	0	-	0
Stage 1	59	-	-	-	-	-
Stage 2	297	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	646	1012	0	-	-	0
Stage 1	969	-	0	-	-	0
Stage 2	758	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	646	1012	-	-	-	-
Mov Cap-2 Maneuver	646	-	-	-	-	-
Stage 1	969	-	-	-	-	-
Stage 2	758	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	909	-
HCM Lane V/C Ratio	-	0.036	-
HCM Control Delay (s)	-	9.1	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	185	90	195	5	0	15	0	25	15	5	60	0
Future Vol, veh/h	185	90	195	5	0	15	0	25	15	5	60	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	1	0	0	0	0	0	0	3	0	0	6	0
Mvmt Flow	201	98	212	5	0	16	0	27	16	5	65	0
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	10.2	7.5	8.3	8.7
HCM LOS	B	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	0%	67%	0%	25%	8%
Vol Thru, %	62%	33%	0%	0%	92%
Vol Right, %	38%	0%	100%	75%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	40	275	195	20	65
LT Vol	0	185	0	5	5
Through Vol	25	90	0	0	60
RT Vol	15	0	195	15	0
Lane Flow Rate	43	299	212	22	71
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.06	0.43	0.243	0.026	0.1
Departure Headway (Hd)	4.948	5.183	4.126	4.388	5.096
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	724	699	875	815	704
Service Time	2.977	2.883	1.826	2.419	3.124
HCM Lane V/C Ratio	0.059	0.428	0.242	0.027	0.101
HCM Control Delay	8.3	11.7	8.1	7.5	8.7
HCM Lane LOS	A	B	A	A	A
HCM 95th-tile Q	0.2	2.2	1	0.1	0.3

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	5	5	5	5	5	5	30	5	10	170	10
Future Vol, veh/h	0	5	5	5	5	5	5	30	5	10	170	10
Conflicting Peds, #/hr	2	0	0	0	0	2	5	0	7	7	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	6	0	0	2	0
Mvmt Flow	0	6	6	6	6	6	6	33	6	11	189	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	278	280	200	278	282	45	205	0	0	46	0	0
Stage 1	222	222	-	55	55	-	-	-	-	-	-	-
Stage 2	56	58	-	223	227	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	678	632	846	678	630	1031	1378	-	-	1575	-	-
Stage 1	785	723	-	962	853	-	-	-	-	-	-	-
Stage 2	961	851	-	784	720	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	659	617	842	658	615	1022	1371	-	-	1565	-	-
Mov Cap-2 Maneuver	659	617	-	658	615	-	-	-	-	-	-	-
Stage 1	778	714	-	951	844	-	-	-	-	-	-	-
Stage 2	944	842	-	767	711	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	10.1	1	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1371	-	-	712	727	1565	-	-
HCM Lane V/C Ratio	0.004	-	-	0.016	0.023	0.007	-	-
HCM Control Delay (s)	7.6	0	-	10.1	10.1	7.3	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	5	0	15	0	10	5	25	10	15	160	5
Future Vol, veh/h	5	5	0	15	0	10	5	25	10	15	160	5
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	11	11	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	6	0	0	2	0
Mvmt Flow	5	5	0	16	0	11	5	26	11	16	168	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	252	263	173	258	260	43	175	0	0	48	0	0
Stage 1	205	205	-	53	53	-	-	-	-	-	-	-
Stage 2	47	58	-	205	207	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	706	646	876	699	648	1033	1414	-	-	1572	-	-
Stage 1	802	736	-	965	855	-	-	-	-	-	-	-
Stage 2	972	851	-	802	734	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	690	629	874	679	631	1022	1411	-	-	1556	-	-
Mov Cap-2 Maneuver	690	629	-	679	631	-	-	-	-	-	-	-
Stage 1	797	726	-	951	843	-	-	-	-	-	-	-
Stage 2	958	839	-	787	724	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.6	9.8	0.9	0.6
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1411	-	-	658	784	1556	-	-
HCM Lane V/C Ratio	0.004	-	-	0.016	0.034	0.01	-	-
HCM Control Delay (s)	7.6	0	-	10.6	9.8	7.3	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

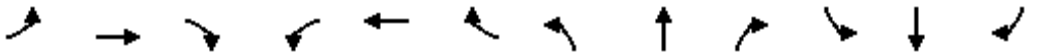
Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	0	5	0	0	0	25	25	5	15	115	55
Future Vol, veh/h	15	0	5	0	0	0	25	25	5	15	115	55
Conflicting Peds, #/hr	0	0	1	1	0	0	2	0	3	3	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	10	0	0	0	0	0	0	0	0	0	0	2
Mvmt Flow	16	0	5	0	0	0	27	27	5	16	125	60

Major/Minor	Minor2					Major1			Major2		
Conflicting Flow All	273	278	158			187	0	0	35	0	0
Stage 1	189	189	-			-	-	-	-	-	-
Stage 2	84	89	-			-	-	-	-	-	-
Critical Hdwy	6.5	6.5	6.2			4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.5	5.5	-			-	-	-	-	-	-
Critical Hdwy Stg 2	5.5	5.5	-			-	-	-	-	-	-
Follow-up Hdwy	3.59	4	3.3			2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	700	633	893			1399	-	-	1589	-	-
Stage 1	824	748	-			-	-	-	-	-	-
Stage 2	919	825	-			-	-	-	-	-	-
Platoon blocked, %							-	-		-	-
Mov Cap-1 Maneuver	676	0	890			1396	-	-	1589	-	-
Mov Cap-2 Maneuver	676	0	-			-	-	-	-	-	-
Stage 1	806	0	-			-	-	-	-	-	-
Stage 2	907	0	-			-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.2	3.5	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1396	-	-	676	890	1589	-	-
HCM Lane V/C Ratio	0.019	-	-	0.024	0.006	0.01	-	-
HCM Control Delay (s)	7.6	0	-	10.5	9.1	7.3	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	10	0	15	0	40	45	45	75	0
Future Volume (veh/h)	0	0	0	10	0	15	0	40	45	45	75	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h				11	0	17	0	46	52	52	86	0
Peak Hour Factor				0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				153	0	135	0	782	646	464	563	0
Arrive On Green				0.08	0.00	0.08	0.00	0.41	0.41	0.41	0.41	0.00
Sat Flow, veh/h				1810	0	1605	0	1900	1570	369	1367	0
Grp Volume(v), veh/h				11	0	17	0	46	52	138	0	0
Grp Sat Flow(s),veh/h/ln				1810	0	1605	0	1900	1570	1736	0	0
Q Serve(g_s), s				0.1	0.0	0.2	0.0	0.2	0.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s				0.1	0.0	0.2	0.0	0.2	0.3	0.7	0.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.38		0.00
Lane Grp Cap(c), veh/h				153	0	135	0	782	646	1027	0	0
V/C Ratio(X)				0.07	0.00	0.13	0.00	0.06	0.08	0.13	0.00	0.00
Avail Cap(c_a), veh/h				4104	0	3641	0	4310	3561	4050	0	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh				6.7	0.0	6.7	0.0	2.8	2.8	3.0	0.0	0.0
Incr Delay (d2), s/veh				0.3	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				7.0	0.0	7.3	0.0	2.8	2.9	3.0	0.0	0.0
LnGrp LOS				A	A	A	A	A	A	A	A	A
Approach Vol, veh/h					28			98			138	
Approach Delay, s/veh					7.2			2.8			3.0	
Approach LOS					A			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	10.5		10.5		5.3			
Change Period (Y+Rc), s	4.0		4.0		4.0			
Max Green Setting (Gmax), s	36.0		36.0		36.0			
Max Q Clear Time (g_c+I1), s	2.3		2.7		2.2			
Green Ext Time (p_c), s	0.4		0.6		0.2			

Intersection Summary		
HCM 6th Ctrl Delay	3.4	
HCM 6th LOS	A	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	140	15	95	40	0	0	0	0	110	780	10
Future Volume (veh/h)	0	140	15	95	40	0	0	0	0	110	780	10
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.99		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1870	0				1900	1885	1811
Adj Flow Rate, veh/h	0	173	19	117	49	0				136	963	12
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81				0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	2	0				0	1	6
Cap, veh/h	0	502	55	366	561	0				361	2735	870
Arrive On Green	0.00	0.30	0.30	0.30	0.30	0.00				0.57	0.59	0.59
Sat Flow, veh/h	0	1673	184	1199	1870	0				615	4670	1486
Grp Volume(v), veh/h	0	0	192	117	49	0				410	689	12
Grp Sat Flow(s),veh/h/ln	0	0	1857	1199	1870	0				1854	1716	1486
Q Serve(g_s), s	0.0	0.0	5.6	5.9	1.3	0.0				8.3	7.3	0.2
Cycle Q Clear(g_c), s	0.0	0.0	5.6	11.6	1.3	0.0				8.3	7.3	0.2
Prop In Lane	0.00		0.10	1.00		0.00				0.33		1.00
Lane Grp Cap(c), veh/h	0	0	557	366	561	0				1086	2010	870
V/C Ratio(X)	0.00	0.00	0.34	0.32	0.09	0.00				0.38	0.34	0.01
Avail Cap(c_a), veh/h	0	0	557	366	561	0				1086	2010	870
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.96	0.96	0.96	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	19.1	23.6	17.6	0.0				7.8	7.5	6.1
Incr Delay (d2), s/veh	0.0	0.0	1.6	2.2	0.3	0.0				1.0	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	2.5	1.8	0.6	0.0				3.0	2.4	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	20.7	25.8	17.9	0.0				8.8	8.0	6.1
LnGrp LOS	A	A	C	C	B	A				A	A	A
Approach Vol, veh/h		192			166						1111	
Approach Delay, s/veh		20.7			23.5						8.3	
Approach LOS		C			C						A	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	45.0	25.0	25.0
Change Period (Y+Rc), s	* 4.8	4.0	4.0
Max Green Setting (Gmax), s	* 40	21.0	21.0
Max Q Clear Time (g_c+I1), s	10.3	7.6	13.6
Green Ext Time (p_c), s	2.0	0.2	0.1

Intersection Summary	
HCM 6th Ctrl Delay	11.6
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	190	0	0	90	50	45	875	190	0	0	0
Future Volume (veh/h)	60	190	0	0	90	50	45	875	190	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		0.97	1.00		0.94			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1870	1870	1885	1900			
Adj Flow Rate, veh/h	66	209	0	0	99	55	49	962	209			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91			
Percent Heavy Veh, %	0	0	0	0	0	2	2	1	0			
Cap, veh/h	372	543	0	0	324	180	143	2987	889			
Arrive On Green	0.19	0.19	0.00	0.00	0.29	0.29	0.59	0.59	0.59			
Sat Flow, veh/h	1238	1900	0	0	1132	629	242	5062	1506			
Grp Volume(v), veh/h	66	209	0	0	0	154	379	632	209			
Grp Sat Flow(s),veh/h/ln	1238	1900	0	0	0	1761	1873	1716	1506			
Q Serve(g_s), s	3.3	6.7	0.0	0.0	0.0	4.8	7.3	6.5	4.6			
Cycle Q Clear(g_c), s	8.1	6.7	0.0	0.0	0.0	4.8	7.3	6.5	4.6			
Prop In Lane	1.00		0.00	0.00		0.36	0.13		1.00			
Lane Grp Cap(c), veh/h	372	543	0	0	0	503	1105	2024	889			
V/C Ratio(X)	0.18	0.38	0.00	0.00	0.00	0.31	0.34	0.31	0.24			
Avail Cap(c_a), veh/h	372	543	0	0	0	503	1105	2024	889			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.95	0.95	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	25.6	22.9	0.0	0.0	0.0	19.6	7.4	7.2	6.8			
Incr Delay (d2), s/veh	1.0	2.0	0.0	0.0	0.0	1.6	0.8	0.4	0.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.1	3.3	0.0	0.0	0.0	2.1	2.7	2.1	1.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.6	24.9	0.0	0.0	0.0	21.1	8.2	7.6	7.5			
LnGrp LOS	C	C	A	A	A	C	A	A	A			
Approach Vol, veh/h		275			154			1220				
Approach Delay, s/veh		25.3			21.1			7.8				
Approach LOS		C			C			A				

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	46.0	24.0	24.0
Change Period (Y+Rc), s	* 4.7	4.0	4.0
Max Green Setting (Gmax), s	* 41	20.0	20.0
Max Q Clear Time (g_c+I1), s	9.3	10.1	6.8
Green Ext Time (p_c), s	1.3	0.2	0.1

Intersection Summary	
HCM 6th Ctrl Delay	11.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection ID and Name	use dropdown NB PhasingType	use dropdown SB PhasingType	use dropdown EB PhasingType	use dropdown WB PhasingType	Cycle Length	Lost Time	use dropdown Use Overlap Calculator	use dropdov NBR Overla	use dropdow SBR Overlap	use dropdow EBR Overlap	use dropdov WBR Overla	BEGIN CALCULATIONS
6: SE Water Avenue & SE Clay Street	Permitted	Permitted		Permitted	80	8	No					
7: SE Martin Luther King Jr. Boulevard & SE Stark Street		Protected	Protected	Protected	70	8	No	No	No	No	No	
8: SE Grand Avenue & SE Stark Street/ SE S	Protected		Protected	Protected	70	8	No					
							No					
							No					
							No					
							No					
							No					
							No					
							No					
							No					
							No					
							No					

1	3 EBL	4 EBT	5 EBR	6 WBL	7 WBT	8 WBR	9 NBL	10 NBT	11 NBR	12 SBL	13 SBT	14 SBR		Critical Flow Calculator WBL/EBT	EBL/WBT	NBL/SBT	SBL/NBT	V/S E/W	V/S N/S
Adj Flow Rate, veh/h	0	0	0	11	0	17	0	46	52	52	86	0	Protected	0.01	0.01	0.06	0.17		
Sat Flow, veh/h	0	0	0	1810	0	1605	0	1900	1570	369	1367	0	Permitted or Split	0.00	0.01	0.14	0.03		
V/S	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.02	0.03	0.14	0.06	0.00	selected phasing	0.00	0.01	0.14	0.03	0.01	0.14
Adj Flow Rate, veh/h	0	173	19	117	49	0	0	0	0	136	963	12	Protected	0.20	0.03	0.21	0.22		
Sat Flow, veh/h	0	1673	184	1199	1870	0	0	0	0	615	4670	1486	Permitted or Split	0.10	0.10	0.22	0.00		
V/S	0.00	0.10	0.10	0.10	0.03	0.00	0.00	0.00	0.00	0.22	0.21	0.01	selected phasing	0.20	0.03	0.22	0.22	0.20	0.22
Adj Flow Rate, veh/h	66	209	0	0	99	55	49	962	209	0	0	0	Protected	0.11	0.14	0.20	0.19		
Sat Flow, veh/h	1238	1900	0	0	1132	629	242	5062	1506	0	0	0	Permitted or Split	0.11	0.09	0.00	0.20		
V/S	0.05	0.11	0.00	0.00	0.09	0.09	0.20	0.19	0.14	0.00	0.00	0.00	selected phasing	0.11	0.14	0.20	0.20	0.14	0.20
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00

Overlap Critical Flow Calculator	NBR OV	NB OV V/S	SBR OV	SB OV V/S	EBR OV	EB OV V/S	WBR OV	WB OV V/S	V/S Overlap		Intersection V/C	HCM 6th Ctrl Delay	HCM 6th LOS	Synchro ID
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	Permitted	0.00	Permitted	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.01	0.00	0.01	Permitted	0.06	Permitted	0.06	N/A		**0.17**	**3**	**A**	6
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	Protected	0.10	Protected	0.10	No OV					
Overlap Approach Phasing	Protected	0.10	Protected	0.10	0.00	0.21	0.00	0.21	N/A		**0.48**	**12**	**B**	7
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	Protected	0.20	Protected	0.20	Protected	0.05	Protected	0.05	No OV					
Overlap Approach Phasing	Protected	0.11	Protected	0.11	Protected	0.19	Protected	0.19	N/A		**0.39**	**12**	**B**	8
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	

List of Phasing Types
Protected
Permitted
Split

List of Overlap Types
Yes
No

Sheet Description:
This sheet reads in the adjusted flow rate and the saturation flow rate from Synchro and divides them to calculated the V/S for each movement.
The critical flow calculator calculates the critical v/s for each conflicting phase pair.
for protected phases, this v/s is the left turn v/s plus the max of the opposing movement v/s
for the permitted and split phases, this v/s is the max of the three movement v/s
The next step selects the proper v/s based on phasing provided
V/S by east-west and north-south is selected by taking the max of the phase pairs or by adding them (if split phasing)
If overlap calculator was selected in input section and overlap phases were indicated, then overlap v/s for intersection is calculated. See details below
If the right turn v/s is greater than the through v/s for the right turn overlap approach, then the right turn is assumed the critical movement and intersection v/c calc will use the v/s overlap instead of approach v/
The final step in v/c calculation uses the approach v/s ratios, cycle length, and lost time to calculate overall intersection v/c
Delay and LOS are read directly from the HCM 6 report

Overlap Calculator Details
Overlap calculator reads in whether an overlap phase is in use and what type of phasing is associated with the right turn approach and the overlapped approach
V/S is read in for right turn movement, and remaining approaches from previous calculations
-right turn overlap v/s is just the v/s for the right turn movement (i.e. NBR)
-right turn approach v/s is the critical v/s associated with the right turn approaches (i.e. NB/SB) and is calculated differently for protected vs split
-overlap approach v/s is the critical v/s associated with the overlap approaches (i.e. EB/WB) and is calculated differently for protected vs split phasing
The v/s overlap column sums the 3 v/s values for the overlap phasing to get the total v/s overlap to be used in the v/c calculation
If there are overlaps for both approaches (i.e. N/S or E/W), the v/s overlap will use the greater of the two for most conservative approach
Use Overlap Calculator' must be enabled and 'Use OV V/S' must be showing in V/S Overlap column in order for overlap v/s to be used in final v/c calculation

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	10	0	100	25	0
Future Vol, veh/h	10	10	0	100	25	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	1	0	0
Mvmt Flow	12	12	0	116	29	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	145	29	-	0	-	0
Stage 1	29	-	-	-	-	-
Stage 2	116	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	852	1052	0	-	-	0
Stage 1	999	-	0	-	-	0
Stage 2	914	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	852	1052	-	-	-	-
Mov Cap-2 Maneuver	852	-	-	-	-	-
Stage 1	999	-	-	-	-	-
Stage 2	914	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	941	-
HCM Lane V/C Ratio	-	0.025	-
HCM Control Delay (s)	-	8.9	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	75	65	115	5	0	5	0	20	5	5	30	0
Future Vol, veh/h	75	65	115	5	0	5	0	20	5	5	30	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	1	0	0	0	0	0	0	0	0	0
Mvmt Flow	86	75	132	6	0	6	0	23	6	6	34	0
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	8.2	7.3	7.7	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	0%	54%	0%	50%	14%
Vol Thru, %	80%	46%	0%	0%	86%
Vol Right, %	20%	0%	100%	50%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	25	140	115	10	35
LT Vol	0	75	0	5	5
Through Vol	20	65	0	0	30
RT Vol	5	0	115	5	0
Lane Flow Rate	29	161	132	11	40
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.036	0.219	0.144	0.014	0.052
Departure Headway (Hd)	4.493	4.895	3.927	4.249	4.626
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	801	731	907	846	778
Service Time	2.497	2.649	1.679	2.257	2.63
HCM Lane V/C Ratio	0.036	0.22	0.146	0.013	0.051
HCM Control Delay	7.7	9	7.3	7.3	7.9
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.1	0.8	0.5	0	0.2

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	5	10	5	5	5	5	20	5	10	80	10
Future Vol, veh/h	5	5	10	5	5	5	5	20	5	10	80	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	8	0	0	1	0
Mvmt Flow	6	6	12	6	6	6	6	24	6	12	98	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	173	170	104	176	173	27	110	0	0	30	0	0
Stage 1	128	128	-	39	39	-	-	-	-	-	-	-
Stage 2	45	42	-	137	134	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	794	727	956	791	724	1054	1493	-	-	1596	-	-
Stage 1	881	794	-	981	866	-	-	-	-	-	-	-
Stage 2	974	864	-	871	789	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	777	718	956	769	715	1054	1493	-	-	1596	-	-
Mov Cap-2 Maneuver	777	718	-	769	715	-	-	-	-	-	-	-
Stage 1	877	788	-	977	863	-	-	-	-	-	-	-
Stage 2	958	861	-	846	783	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	9.5	1.2	0.7
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1493	-	-	838	822	1596	-	-
HCM Lane V/C Ratio	0.004	-	-	0.029	0.022	0.008	-	-
HCM Control Delay (s)	7.4	0	-	9.4	9.5	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	5	5	10	5	5	5	20	5	15	75	5
Future Vol, veh/h	5	5	5	10	5	5	5	20	5	15	75	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	1	0
Mvmt Flow	6	6	6	12	6	6	6	24	6	18	89	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	173	170	92	173	170	27	95	0	0	30	0	0
Stage 1	128	128	-	39	39	-	-	-	-	-	-	-
Stage 2	45	42	-	134	131	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	794	727	971	794	727	1054	1512	-	-	1596	-	-
Stage 1	881	794	-	981	866	-	-	-	-	-	-	-
Stage 2	974	864	-	874	792	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	775	715	971	775	715	1054	1512	-	-	1596	-	-
Mov Cap-2 Maneuver	775	715	-	775	715	-	-	-	-	-	-	-
Stage 1	877	784	-	977	863	-	-	-	-	-	-	-
Stage 2	958	861	-	852	782	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.6	9.6	1.2	1.1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1512	-	-	807	812	1596	-	-
HCM Lane V/C Ratio	0.004	-	-	0.022	0.029	0.011	-	-
HCM Control Delay (s)	7.4	0	-	9.6	9.6	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

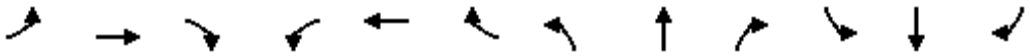
Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	0	0	0	0	0	10	15	5	5	55	30
Future Vol, veh/h	5	0	0	0	0	0	10	15	5	5	55	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	6	0	0	0	0	0	11	17	6	6	63	34

Major/Minor	Minor2					Major1			Major2		
Conflicting Flow All	134	137	80			97	0	0	23	0	0
Stage 1	92	92	-			-	-	-	-	-	-
Stage 2	42	45	-			-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2			4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.4	5.5	-			-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-			-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3			2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	864	758	986			1509	-	-	1605	-	-
Stage 1	937	823	-			-	-	-	-	-	-
Stage 2	986	861	-			-	-	-	-	-	-
Platoon blocked, %							-	-		-	-
Mov Cap-1 Maneuver	854	0	986			1509	-	-	1605	-	-
Mov Cap-2 Maneuver	854	0	-			-	-	-	-	-	-
Stage 1	930	0	-			-	-	-	-	-	-
Stage 2	982	0	-			-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	2.5	0.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1509	-	-	854	-	1605	-	-
HCM Lane V/C Ratio	0.008	-	-	0.007	-	0.004	-	-
HCM Control Delay (s)	7.4	0	-	9.2	0	7.3	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	5	0	10	0	20	15	30	25	0
Future Volume (veh/h)	0	0	0	5	0	10	0	20	15	30	25	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1900	1900	1900	1796	0
Adj Flow Rate, veh/h				6	0	12	0	24	18	37	30	0
Peak Hour Factor				0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %				0	0	0	0	0	0	0	7	0
Cap, veh/h				88	0	77	0	486	412	672	205	0
Arrive On Green				0.05	0.00	0.05	0.00	0.26	0.26	0.26	0.26	0.00
Sat Flow, veh/h				1810	0	1577	0	1900	1610	726	802	0
Grp Volume(v), veh/h				6	0	12	0	24	18	67	0	0
Grp Sat Flow(s),veh/h/ln				1810	0	1577	0	1900	1610	1527	0	0
Q Serve(g_s), s				0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0
Cycle Q Clear(g_c), s				0.0	0.0	0.1	0.0	0.1	0.1	0.3	0.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.55		0.00
Lane Grp Cap(c), veh/h				88	0	77	0	486	412	877	0	0
V/C Ratio(X)				0.07	0.00	0.16	0.00	0.05	0.04	0.08	0.00	0.00
Avail Cap(c_a), veh/h				5665	0	4938	0	5948	5041	5164	0	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh				5.2	0.0	5.2	0.0	3.2	3.2	3.3	0.0	0.0
Incr Delay (d2), s/veh				0.5	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				5.7	0.0	6.6	0.0	3.2	3.2	3.3	0.0	0.0
LnGrp LOS				A	A	A	A	A	A	A	A	A
Approach Vol, veh/h					18			42			67	
Approach Delay, s/veh					6.3			3.2			3.3	
Approach LOS					A			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	6.9		6.9		4.6			
Change Period (Y+Rc), s	4.0		4.0		4.0			
Max Green Setting (Gmax), s	36.0		36.0		36.0			
Max Q Clear Time (g_c+I1), s	2.1		2.3		2.1			
Green Ext Time (p_c), s	0.1		0.2		0.1			

Intersection Summary		
HCM 6th Ctrl Delay	3.7	
HCM 6th LOS	A	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	75	10	70	40	0	0	0	0	85	600	15
Future Volume (veh/h)	0	75	10	70	40	0	0	0	0	85	600	15
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1885	1900	1767	0				1900	1885	1900
Adj Flow Rate, veh/h	0	80	11	74	43	0				90	638	16
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	1	0	9	0				0	1	0
Cap, veh/h	0	489	67	452	530	0				359	2736	916
Arrive On Green	0.00	0.30	0.30	0.30	0.30	0.00				0.57	0.59	0.59
Sat Flow, veh/h	0	1628	224	1323	1767	0				614	4672	1564
Grp Volume(v), veh/h	0	0	91	74	43	0				272	456	16
Grp Sat Flow(s),veh/h/ln	0	0	1852	1323	1767	0				1854	1716	1564
Q Serve(g_s), s	0.0	0.0	2.5	3.1	1.2	0.0				5.0	4.4	0.3
Cycle Q Clear(g_c), s	0.0	0.0	2.5	5.6	1.2	0.0				5.0	4.4	0.3
Prop In Lane	0.00		0.12	1.00		0.00				0.33		1.00
Lane Grp Cap(c), veh/h	0	0	556	452	530	0				1086	2010	916
V/C Ratio(X)	0.00	0.00	0.16	0.16	0.08	0.00				0.25	0.23	0.02
Avail Cap(c_a), veh/h	0	0	556	452	530	0				1086	2010	916
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.99	0.97	0.97	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	18.0	20.1	17.6	0.0				7.1	6.9	6.1
Incr Delay (d2), s/veh	0.0	0.0	0.6	0.8	0.3	0.0				0.6	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.1	1.0	0.5	0.0				1.8	1.4	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	18.7	20.8	17.9	0.0				7.7	7.2	6.1
LnGrp LOS	A	A	B	C	B	A				A	A	A
Approach Vol, veh/h		91			117						744	
Approach Delay, s/veh		18.7			19.8						7.3	
Approach LOS		B			B						A	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	45.0	25.0	25.0
Change Period (Y+Rc), s	* 4.8	4.0	4.0
Max Green Setting (Gmax), s	* 40	21.0	21.0
Max Q Clear Time (g_c+I1), s	7.0	4.5	7.6
Green Ext Time (p_c), s	1.2	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	9.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	120	0	0	80	60	30	610	85	0	0	0
Future Volume (veh/h)	40	120	0	0	80	60	30	610	85	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	0.98		1.00	1.00		0.96	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1885	1900	1900	1885	1900			
Adj Flow Rate, veh/h	43	128	0	0	85	64	32	649	90			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	0	0	0	0	1	0	0	1	0			
Cap, veh/h	372	543	0	0	280	211	138	2991	940			
Arrive On Green	0.09	0.09	0.00	0.00	0.29	0.29	0.59	0.59	0.59			
Sat Flow, veh/h	1236	1900	0	0	980	738	235	5070	1592			
Grp Volume(v), veh/h	43	128	0	0	0	149	256	425	90			
Grp Sat Flow(s),veh/h/ln	1236	1900	0	0	0	1717	1873	1716	1592			
Q Serve(g_s), s	2.3	4.4	0.0	0.0	0.0	4.8	4.5	4.1	1.7			
Cycle Q Clear(g_c), s	7.0	4.4	0.0	0.0	0.0	4.8	4.5	4.1	1.7			
Prop In Lane	1.00		0.00	0.00		0.43	0.13		1.00			
Lane Grp Cap(c), veh/h	372	543	0	0	0	491	1105	2024	940			
V/C Ratio(X)	0.12	0.24	0.00	0.00	0.00	0.30	0.23	0.21	0.10			
Avail Cap(c_a), veh/h	372	543	0	0	0	491	1105	2024	940			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.99	0.99	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	28.1	24.6	0.0	0.0	0.0	19.6	6.8	6.7	6.2			
Incr Delay (d2), s/veh	0.6	1.0	0.0	0.0	0.0	1.6	0.5	0.2	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.8	2.1	0.0	0.0	0.0	2.0	1.6	1.3	0.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.7	25.6	0.0	0.0	0.0	21.1	7.3	7.0	6.4			
LnGrp LOS	C	C	A	A	A	C	A	A	A			
Approach Vol, veh/h		171			149			771				
Approach Delay, s/veh		26.4			21.1			7.0				
Approach LOS		C			C			A				

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	46.0	24.0	24.0
Change Period (Y+Rc), s	* 4.7	4.0	4.0
Max Green Setting (Gmax), s	* 41	20.0	20.0
Max Q Clear Time (g_c+I1), s	6.5	9.0	6.8
Green Ext Time (p_c), s	0.8	0.1	0.1

Intersection Summary	
HCM 6th Ctrl Delay	12.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection ID and Name	use dropdown NB PhasingType	use dropdown SB PhasingType	use dropdown EB PhasingType	use dropdown WB PhasingType	Cycle Length	Lost Time	use dropdown Use Overlap Calculator	use dropdov NBR Overla	use dropdow SBR Overlap	use dropdow EBR Overlap	use dropdov WBR Overla	BEGIN CALCULATIONS
6: SE Water Avenue & SE Clay Street	Permitted	Permitted		Permitted	80	8	No					
7: SE Martin Luther King Jr. Boulevard & SE Stark Street		Protected	Protected	Protected	70	8	No	No	No	No	No	
8: SE Grand Avenue & SE Stark Street/ SE S	Protected		Protected	Protected	70	8	No					
							No					
							No					
							No					
							No					
							No					
							No					
							No					
							No					
							No					
							No					

1	3 EBL	4 EBT	5 EBR	6 WBL	7 WBT	8 WBR	9 NBL	10 NBT	11 NBR	12 SBL	13 SBT	14 SBR	Critical Flow Calculator	WBL/EBT	EBL/WBT	NBL/SBT	SBL/NBT	V/S E/W	V/S N/S
Adj Flow Rate, veh/h	0	0	0	6	0	12	0	24	18	37	30	0	Protected	0.00	0.01	0.04	0.06		
Sat Flow, veh/h	0	0	0	1810	0	1577	0	1900	1610	726	802	0	Permitted or Split	0.00	0.01	0.05	0.01		
V/S	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.05	0.04	0.00	selected phasing	0.00	0.01	0.05	0.01	0.01	0.05
Adj Flow Rate, veh/h	0	80	11	74	43	0	0	0	0	90	638	16	Protected	0.11	0.02	0.14	0.15		
Sat Flow, veh/h	0	1628	224	1323	1767	0	0	0	0	614	4672	1564	Permitted or Split	0.05	0.06	0.15	0.00		
V/S	0.00	0.05	0.05	0.06	0.02	0.00	0.00	0.00	0.00	0.15	0.14	0.01	selected phasing	0.11	0.02	0.15	0.15	0.11	0.15
Adj Flow Rate, veh/h	43	128	0	0	85	64	32	649	90	0	0	0	Protected	0.07	0.12	0.14	0.13		
Sat Flow, veh/h	1236	1900	0	0	980	738	235	5070	1592	0	0	0	Permitted or Split	0.07	0.09	0.00	0.14		
V/S	0.03	0.07	0.00	0.00	0.09	0.09	0.14	0.13	0.06	0.00	0.00	0.00	selected phasing	0.07	0.12	0.14	0.14	0.12	0.14
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00

Overlap Critical Flow Calculator	NBR OV	NB OV V/S	SBR OV	SB OV V/S	EBR OV	EB OV V/S	WBR OV	WB OV V/S	V/S Overlap		Intersection V/C	HCM 6th Ctrl Delay	HCM 6th LOS	Synchro ID
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	Permitted	0.00	Permitted	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.01	0.00	0.01	Permitted	0.04	Permitted	0.04	N/A		**0.07**	**4**	**A**	6
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	Protected	0.06	Protected	0.06	No OV					
Overlap Approach Phasing	Protected	0.05	Protected	0.05	0.00	0.14	0.00	0.14	N/A		**0.28**	**10**	**A**	7
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	Protected	0.14	Protected	0.14	Protected	0.03	Protected	0.03	No OV					
Overlap Approach Phasing	Protected	0.09	Protected	0.09	Protected	0.13	Protected	0.13	N/A		**0.29**	**12**	**B**	8
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	

List of Phasing Types
Protected
Permitted
Split

List of Overlap Types
Yes
No

Sheet Description:
This sheet reads in the adjusted flow rate and the saturation flow rate from Synchro and divides them to calculated the V/S for each movement.
The critical flow calculator calculates the critical v/s for each conflicting phase pair.
for protected phases, this v/s is the left turn v/s plus the max of the opposing movement v/s
for the permitted and split phases, this v/s is the max of the three movement v/s
The next step selects the proper v/s based on phasing provided
V/S by east-west and north-south is selected by taking the max of the phase pairs or by adding them (if split phasing)
If overlap calculator was selected in input section and overlap phases were indicated, then overlap v/s for intersection is calculated. See details below
If the right turn v/s is greater than the through v/s for the right turn overlap approach, then the right turn is assumed the critical movement and intersection v/c calc will use the v/s overlap instead of approach v/
The final step in v/c calculation uses the approach v/s ratios, cycle length, and lost time to calculate overall intersection v/c
Delay and LOS are read directly from the HCM 6 report

Overlap Calculator Details
Overlap calculator reads in whether an overlap phase is in use and what type of phasing is associated with the right turn approach and the overlapped approach
V/S is read in for right turn movement, and remaining approaches from previous calculations
-right turn overlap v/s is just the v/s for the right turn movement (i.e. NBR)
-right turn approach v/s is the critical v/s associated with the right turn approaches (i.e. NB/SB) and is calculated differently for protected vs split
-overlap approach v/s is the critical v/s associated with the overlap approaches (i.e. EB/WB) and is calculated differently for protected vs split phasing
The v/s overlap column sums the 3 v/s values for the overlap phasing to get the total v/s overlap to be used in the v/c calculation
If there are overlaps for both approaches (i.e. N/S or E/W), the v/s overlap will use the greater of the two for most conservative approach
Use Overlap Calculator' must be enabled and 'Use OV V/S' must be showing in V/S Overlap column in order for overlap v/s to be used in final v/c calculation

SECTION 13: NO-BUILD QUEUING REPORTS

Intersection: 1: SE Water Avenue & SE Morrison Bridge Off Ramp

Movement	EB	NB
Directions Served	LR	T
Maximum Queue (ft)	34	35
Average Queue (ft)	16	4
95th Queue (ft)	42	21
Link Distance (ft)	547	80
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: SE Water Avenue & I-5 Off Ramp/SE Yamhill Street

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	TR	LT
Maximum Queue (ft)	104	108	35	82	52
Average Queue (ft)	52	38	18	25	27
95th Queue (ft)	80	75	45	53	51
Link Distance (ft)	621		232	446	80
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		300			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: SE Water Avenue & SE Salmon Street

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	33	35
Average Queue (ft)	4	6
95th Queue (ft)	22	26
Link Distance (ft)	306	219
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: SE Water Avenue & SE Main Street

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	35	35	35
Average Queue (ft)	9	24	2
95th Queue (ft)	32	49	17
Link Distance (ft)	331	220	208
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: SE Water Avenue & Hawthorne Bridge Off Ramp/SE Hawthorne Boulevard

Movement	EB	NB	SB
Directions Served	LT	LTR	LTR
Maximum Queue (ft)	33	35	31
Average Queue (ft)	10	6	1
95th Queue (ft)	33	27	11
Link Distance (ft)	577	240	440
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: SE Water Avenue & SE Clay Street

Movement	WB	WB	NB	NB	SB
Directions Served	L	TR	T	R	LT
Maximum Queue (ft)	29	51	26	32	86
Average Queue (ft)	3	6	3	5	15
95th Queue (ft)	17	25	16	24	54
Link Distance (ft)		199	369		240
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	200			175	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: SE Martin Luther King Jr. Boulevard & SE Stark Street

Movement	EB	WB	WB	SB	SB	SB	SB
Directions Served	TR	L	T	LT	T	T	R
Maximum Queue (ft)	189	99	216	280	280	214	34
Average Queue (ft)	59	75	87	200	127	34	7
95th Queue (ft)	133	117	222	357	269	118	28
Link Distance (ft)	698		212	260	260	260	260
Upstream Blk Time (%)			8	8	1		
Queuing Penalty (veh)			8	0	0		
Storage Bay Dist (ft)		75					
Storage Blk Time (%)		27	1				
Queuing Penalty (veh)		7	1				

Intersection: 8: SE Grand Avenue & SE Stark Street/ SE Stark Street

Movement	EB	EB	WB	NB	NB	NB	NB
Directions Served	L	T	TR	LT	T	T	R
Maximum Queue (ft)	74	230	342	143	149	145	92
Average Queue (ft)	41	143	122	73	86	66	42
95th Queue (ft)	90	233	253	125	140	137	87
Link Distance (ft)		212	460	3150	3150	3150	3150
Upstream Blk Time (%)		8					
Queuing Penalty (veh)		19					
Storage Bay Dist (ft)	50						
Storage Blk Time (%)	11	52					
Queuing Penalty (veh)	18	29					

Zone Summary

Zone wide Queuing Penalty: 82

Intersection: 1: SE Water Avenue & SE Morrison Bridge Off Ramp

Movement	EB
Directions Served	LR
Maximum Queue (ft)	33
Average Queue (ft)	5
95th Queue (ft)	25
Link Distance (ft)	547
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: SE Water Avenue & I-5 Off Ramp/SE Yamhill Street

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	TR	LT
Maximum Queue (ft)	31	27	35	28	34
Average Queue (ft)	21	13	9	11	15
95th Queue (ft)	40	31	33	33	42
Link Distance (ft)	621		232	446	80
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		300			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: SE Water Avenue & SE Salmon Street

Movement	EB	SB
Directions Served	LTR	LTR
Maximum Queue (ft)	35	35
Average Queue (ft)	5	2
95th Queue (ft)	23	17
Link Distance (ft)	306	446
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: SE Water Avenue & SE Main Street

Movement	EB
Directions Served	LTR
Maximum Queue (ft)	35
Average Queue (ft)	2
95th Queue (ft)	13
Link Distance (ft)	331
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: SE Water Avenue & Hawthorne Bridge Off Ramp/SE Hawthorne Boulevard

Movement	NB
Directions Served	LTR
Maximum Queue (ft)	35
Average Queue (ft)	1
95th Queue (ft)	12
Link Distance (ft)	240
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 6: SE Water Avenue & SE Clay Street

Movement	WB	NB	NB
Directions Served	TR	T	R
Maximum Queue (ft)	51	22	32
Average Queue (ft)	5	1	1
95th Queue (ft)	27	7	11
Link Distance (ft)	199	369	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			175
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: SE Martin Luther King Jr. Boulevard & SE Stark Street

Movement	EB	WB	WB	SB	SB	SB	SB
Directions Served	TR	L	T	LT	T	T	R
Maximum Queue (ft)	78	80	35	228	182	34	43
Average Queue (ft)	9	21	1	130	59	1	3
95th Queue (ft)	40	55	12	225	150	11	19
Link Distance (ft)	698		212	260	260	260	260
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		75					
Storage Blk Time (%)		1					
Queuing Penalty (veh)		0					

Intersection: 8: SE Grand Avenue & SE Stark Street/ SE Stark Street

Movement	EB	EB	WB	NB	NB	NB	NB
Directions Served	L	T	TR	LT	T	T	R
Maximum Queue (ft)	74	110	80	61	78	35	35
Average Queue (ft)	24	46	30	43	31	8	4
95th Queue (ft)	61	87	64	72	74	30	21
Link Distance (ft)		212	460	3150	3150	3150	3150
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	50						
Storage Blk Time (%)	7	14					
Queuing Penalty (veh)	3	2					

Zone Summary

Zone wide Queuing Penalty: 5

Intersection: 1: SE Water Avenue & SE Morrison Bridge Off Ramp

Movement	EB
Directions Served	LR
Maximum Queue (ft)	34
Average Queue (ft)	19
95th Queue (ft)	45
Link Distance (ft)	547
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: SE Water Avenue & I-5 Off Ramp/SE Yamhill Street

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	TR	LT
Maximum Queue (ft)	81	79	57	61	77
Average Queue (ft)	46	34	16	19	34
95th Queue (ft)	72	58	45	43	56
Link Distance (ft)	621		232	446	80
Upstream Blk Time (%)					0
Queuing Penalty (veh)					0
Storage Bay Dist (ft)		300			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: SE Water Avenue & SE Salmon Street

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	35	35	35
Average Queue (ft)	6	13	1
95th Queue (ft)	27	40	12
Link Distance (ft)	306	219	208
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: SE Water Avenue & SE Main Street

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	35	55	31
Average Queue (ft)	9	18	1
95th Queue (ft)	34	46	10
Link Distance (ft)	331	220	208
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: SE Water Avenue & Hawthorne Bridge Off Ramp/SE Hawthorne Boulevard

Movement	EB	NB	SB
Directions Served	LT	LTR	LTR
Maximum Queue (ft)	66	56	27
Average Queue (ft)	12	8	1
95th Queue (ft)	41	34	9
Link Distance (ft)	577	240	440
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: SE Water Avenue & SE Clay Street

Movement	WB	WB	NB	NB	SB
Directions Served	L	TR	T	R	LT
Maximum Queue (ft)	51	115	27	28	76
Average Queue (ft)	4	49	2	3	14
95th Queue (ft)	23	118	14	16	50
Link Distance (ft)		199	369		240
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	200			175	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: SE Martin Luther King Jr. Boulevard & SE Stark Street

Movement	EB	WB	WB	SB	SB	SB
Directions Served	TR	L	T	LT	T	T
Maximum Queue (ft)	373	100	212	280	276	167
Average Queue (ft)	107	62	60	152	73	24
95th Queue (ft)	231	111	165	258	164	80
Link Distance (ft)	698		212	260	260	260
Upstream Blk Time (%)			2	1	0	
Queuing Penalty (veh)			3	0	0	
Storage Bay Dist (ft)		75				
Storage Blk Time (%)		17	6			
Queuing Penalty (veh)		7	5			

Intersection: 8: SE Grand Avenue & SE Stark Street/ SE Stark Street

Movement	EB	EB	WB	NB	NB	NB	NB
Directions Served	L	T	TR	LT	T	T	R
Maximum Queue (ft)	74	224	257	128	114	133	84
Average Queue (ft)	39	146	110	71	68	49	34
95th Queue (ft)	80	246	210	114	114	112	76
Link Distance (ft)		212	460	3150	3150	3150	3150
Upstream Blk Time (%)		6					
Queuing Penalty (veh)		17					
Storage Bay Dist (ft)	50						
Storage Blk Time (%)	12	45					
Queuing Penalty (veh)	22	27					

Zone Summary

Zone wide Queuing Penalty: 81

Intersection: 1: SE Water Avenue & SE Morrison Bridge Off Ramp

Movement	EB
Directions Served	LR
Maximum Queue (ft)	33
Average Queue (ft)	22
95th Queue (ft)	46
Link Distance (ft)	547
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: SE Water Avenue & I-5 Off Ramp/SE Yamhill Street

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	TR	LT
Maximum Queue (ft)	54	61	35	28	34
Average Queue (ft)	31	28	14	14	24
95th Queue (ft)	46	43	41	36	48
Link Distance (ft)	621		232	446	80
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		300			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: SE Water Avenue & SE Salmon Street

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	35	35
Average Queue (ft)	24	14
95th Queue (ft)	48	41
Link Distance (ft)	306	219
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: SE Water Avenue & SE Main Street

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	58	35	35
Average Queue (ft)	18	13	2
95th Queue (ft)	48	38	17
Link Distance (ft)	331	220	208
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: SE Water Avenue & Hawthorne Bridge Off Ramp/SE Hawthorne Boulevard

Movement	EB
Directions Served	LT
Maximum Queue (ft)	33
Average Queue (ft)	7
95th Queue (ft)	28
Link Distance (ft)	577
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 6: SE Water Avenue & SE Clay Street

Movement	WB	WB	NB	SB
Directions Served	L	TR	T	LT
Maximum Queue (ft)	70	25	26	35
Average Queue (ft)	10	3	1	4
95th Queue (ft)	43	15	10	21
Link Distance (ft)		199	369	240
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	200			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: SE Martin Luther King Jr. Boulevard & SE Stark Street

Movement	EB	WB	WB	SB	SB	SB	SB
Directions Served	TR	L	T	LT	T	T	R
Maximum Queue (ft)	80	93	60	232	150	34	34
Average Queue (ft)	41	51	21	131	58	9	2
95th Queue (ft)	75	99	56	205	120	32	16
Link Distance (ft)	698		212	260	260	260	260
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		75					
Storage Blk Time (%)		10	0				
Queuing Penalty (veh)		4	0				

Intersection: 8: SE Grand Avenue & SE Stark Street/ SE Stark Street

Movement	EB	EB	WB	NB	NB	NB	NB
Directions Served	L	T	TR	LT	T	T	R
Maximum Queue (ft)	74	204	252	109	134	117	68
Average Queue (ft)	47	111	104	48	58	24	12
95th Queue (ft)	89	208	195	87	108	79	42
Link Distance (ft)		212	460	3150	3150	3150	3150
Upstream Blk Time (%)		0					
Queuing Penalty (veh)		0					
Storage Bay Dist (ft)	50						
Storage Blk Time (%)	15	40					
Queuing Penalty (veh)	19	16					

Zone Summary

Zone wide Queuing Penalty: 39

SECTION 14: BUILD INTERSECTION REPORTS

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	40	0	310	105	0
Future Vol, veh/h	10	40	0	310	105	0
Conflicting Peds, #/hr	14	3	22	0	0	22
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	0	1	0	0	1	0
Mvmt Flow	12	49	0	383	130	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	527	133	-	0	-	0
Stage 1	130	-	-	-	-	-
Stage 2	397	-	-	-	-	-
Critical Hdwy	6.4	6.21	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.309	-	-	-	-
Pot Cap-1 Maneuver	515	919	0	-	-	0
Stage 1	901	-	0	-	-	0
Stage 2	683	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	515	916	-	-	-	-
Mov Cap-2 Maneuver	515	-	-	-	-	-
Stage 1	901	-	-	-	-	-
Stage 2	683	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	793	-
HCM Lane V/C Ratio	-	0.078	-
HCM Control Delay (s)	-	9.9	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.3	-

Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	185	105	275	10	0	15	0	110	20	15	130	0
Future Vol, veh/h	185	105	275	10	0	15	0	110	20	15	130	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	1	0	2	0	0	0	0	2	0	0	0	0
Mvmt Flow	197	112	293	11	0	16	0	117	21	16	138	0
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	11.9	8.5	9.9	10.2
HCM LOS	B	A	A	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	0%	64%	0%	40%	10%
Vol Thru, %	85%	36%	0%	0%	90%
Vol Right, %	15%	0%	100%	60%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	130	290	275	25	145
LT Vol	0	185	0	10	15
Through Vol	110	105	0	0	130
RT Vol	20	0	275	15	0
Lane Flow Rate	138	309	293	27	154
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.207	0.483	0.373	0.039	0.233
Departure Headway (Hd)	5.398	5.633	4.589	5.271	5.449
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	658	636	775	684	653
Service Time	3.483	3.406	2.362	3.271	3.533
HCM Lane V/C Ratio	0.21	0.486	0.378	0.039	0.236
HCM Control Delay	9.9	13.6	10.1	8.5	10.2
HCM Lane LOS	A	B	B	A	B
HCM 95th-tile Q	0.8	2.6	1.7	0.1	0.9

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	5	40	5	10	0	145	30	30	290	5
Future Vol, veh/h	5	0	5	40	5	10	0	145	30	30	290	5
Conflicting Peds, #/hr	1	0	2	2	0	1	2	0	10	10	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	20	1	0
Mvmt Flow	6	0	6	47	6	12	0	169	35	35	337	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	609	626	344	612	612	198	345	0	0	214	0	0
Stage 1	412	412	-	197	197	-	-	-	-	-	-	-
Stage 2	197	214	-	415	415	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.3	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.38	-	-
Pot Cap-1 Maneuver	410	403	703	408	411	848	1225	-	-	1256	-	-
Stage 1	621	598	-	809	742	-	-	-	-	-	-	-
Stage 2	809	729	-	619	596	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	388	384	700	389	392	839	1223	-	-	1244	-	-
Mov Cap-2 Maneuver	388	384	-	389	392	-	-	-	-	-	-	-
Stage 1	620	576	-	801	735	-	-	-	-	-	-	-
Stage 2	791	722	-	591	574	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.4	14.8	0	0.7
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1223	-	-	499	431	1244	-	-
HCM Lane V/C Ratio	-	-	-	0.023	0.148	0.028	-	-
HCM Control Delay (s)	0	-	-	12.4	14.8	8	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.5	0.1	-	-

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	5	15	15	30	10	140	15	70	245	20
Future Vol, veh/h	5	0	5	15	15	30	10	140	15	70	245	20
Conflicting Peds, #/hr	1	0	5	5	0	1	3	0	11	11	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	6	0	6	18	18	36	12	167	18	83	292	24

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	701	693	312	689	696	188	319	0	0	196	0	0
Stage 1	473	473	-	211	211	-	-	-	-	-	-	-
Stage 2	228	220	-	478	485	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	356	369	733	363	368	859	1252	-	-	1389	-	-
Stage 1	576	562	-	796	731	-	-	-	-	-	-	-
Stage 2	779	725	-	572	555	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	305	334	727	332	333	849	1248	-	-	1374	-	-
Mov Cap-2 Maneuver	305	334	-	332	333	-	-	-	-	-	-	-
Stage 1	568	519	-	779	716	-	-	-	-	-	-	-
Stage 2	719	710	-	523	513	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.6	13.9	0.5	1.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1248	-	-	430	478	1374	-	-
HCM Lane V/C Ratio	0.01	-	-	0.028	0.149	0.061	-	-
HCM Control Delay (s)	7.9	0	-	13.6	13.9	7.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.5	0.2	-	-

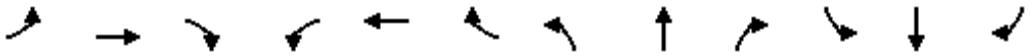
Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	55	10	10	0	0	0	10	100	5	15	145	115
Future Vol, veh/h	55	10	10	0	0	0	10	100	5	15	145	115
Conflicting Peds, #/hr	1	0	1	1	0	1	9	0	7	7	0	9
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	8	1	0
Mvmt Flow	75	14	14	0	0	0	14	137	7	21	199	158

Major/Minor	Minor2					Major1			Major2		
Conflicting Flow All	499	508	288			366	0	0	151	0	0
Stage 1	329	329	-			-	-	-	-	-	-
Stage 2	170	179	-			-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2			4.1	-	-	4.18	-	-
Critical Hdwy Stg 1	5.4	5.5	-			-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-			-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3			2.2	-	-	2.272	-	-
Pot Cap-1 Maneuver	535	471	756			1204	-	-	1394	-	-
Stage 1	734	650	-			-	-	-	-	-	-
Stage 2	865	755	-			-	-	-	-	-	-
Platoon blocked, %							-	-		-	-
Mov Cap-1 Maneuver	509	0	749			1194	-	-	1394	-	-
Mov Cap-2 Maneuver	509	0	-			-	-	-	-	-	-
Stage 1	718	0	-			-	-	-	-	-	-
Stage 2	842	0	-			-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.1	0.7	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1194	-	-	509	749	1394	-	-
HCM Lane V/C Ratio	0.011	-	-	0.175	0.018	0.015	-	-
HCM Control Delay (s)	8.1	0	-	13.6	9.9	7.6	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.1	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	10	0	50	0	65	30	85	70	0
Future Volume (veh/h)	0	0	0	10	0	50	0	65	30	85	70	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		0.97	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1870	1900	1885	1900	0
Adj Flow Rate, veh/h				12	0	60	0	77	36	101	83	0
Peak Hour Factor				0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %				0	0	0	0	2	0	1	0	0
Cap, veh/h				331	0	286	0	769	641	558	379	0
Arrive On Green				0.18	0.00	0.18	0.00	0.41	0.41	0.41	0.41	0.00
Sat Flow, veh/h				1810	0	1565	0	1870	1558	670	920	0
Grp Volume(v), veh/h				12	0	60	0	77	36	184	0	0
Grp Sat Flow(s),veh/h/ln				1810	0	1565	0	1870	1558	1590	0	0
Q Serve(g_s), s				0.1	0.0	0.6	0.0	0.5	0.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s				0.1	0.0	0.6	0.0	0.5	0.3	1.2	0.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.55		0.00
Lane Grp Cap(c), veh/h				331	0	286	0	769	641	937	0	0
V/C Ratio(X)				0.04	0.00	0.21	0.00	0.10	0.06	0.20	0.00	0.00
Avail Cap(c_a), veh/h				3306	0	2859	0	3417	2846	3082	0	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh				6.6	0.0	6.8	0.0	3.6	3.5	3.8	0.0	0.0
Incr Delay (d2), s/veh				0.1	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				6.7	0.0	7.4	0.0	3.6	3.5	3.8	0.0	0.0
LnGrp LOS				A	A	A	A	A	A	A	A	A
Approach Vol, veh/h					72			113			184	
Approach Delay, s/veh					7.2			3.6			3.8	
Approach LOS					A			A			A	

Timer - Assigned Phs	2			6		8			
Phs Duration (G+Y+Rc), s	12.1			12.1		7.6			
Change Period (Y+Rc), s	4.0			4.0		4.0			
Max Green Setting (Gmax), s	36.0			36.0		36.0			
Max Q Clear Time (g_c+I1), s	2.5			3.2		2.6			
Green Ext Time (p_c), s	0.5			0.8		0.6			

Intersection Summary		
HCM 6th Ctrl Delay	4.4	
HCM 6th LOS	A	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	180	10	95	35	0	0	0	0	110	825	65
Future Volume (veh/h)	0	180	10	95	35	0	0	0	0	110	825	65
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00				1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1885	1900	1826	0				1900	1885	1900
Adj Flow Rate, veh/h	0	222	12	117	43	0				136	1019	80
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81				0.81	0.81	0.81
Percent Heavy Veh, %	0	0	1	0	5	0				0	1	0
Cap, veh/h	0	1044	56	715	1069	0				176	1410	449
Arrive On Green	0.00	0.59	0.59	0.59	0.59	0.00				0.29	0.30	0.30
Sat Flow, veh/h	0	1782	96	1163	1826	0				586	4701	1495
Grp Volume(v), veh/h	0	0	234	117	43	0				431	724	80
Grp Sat Flow(s),veh/h/ln	0	0	1879	1163	1826	0				1856	1716	1495
Q Serve(g_s), s	0.0	0.0	4.1	3.7	0.7	0.0				14.8	13.1	2.8
Cycle Q Clear(g_c), s	0.0	0.0	4.1	7.8	0.7	0.0				14.8	13.1	2.8
Prop In Lane	0.00		0.05	1.00		0.00				0.32		1.00
Lane Grp Cap(c), veh/h	0	0	1100	715	1069	0				557	1029	449
V/C Ratio(X)	0.00	0.00	0.21	0.16	0.04	0.00				0.77	0.70	0.18
Avail Cap(c_a), veh/h	0	0	1100	715	1069	0				557	1029	449
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.80	0.95	0.95	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	6.9	8.7	6.2	0.0				22.5	21.7	18.1
Incr Delay (d2), s/veh	0.0	0.0	0.4	0.5	0.1	0.0				10.1	4.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.5	0.9	0.2	0.0				7.6	5.5	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	7.2	9.2	6.2	0.0				32.5	25.8	19.0
LnGrp LOS	A	A	A	A	A	A				C	C	B
Approach Vol, veh/h		234			160						1235	
Approach Delay, s/veh		7.2			8.4						27.7	
Approach LOS		A			A						C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	25.0	45.0	45.0
Change Period (Y+Rc), s	* 4.8	4.0	4.0
Max Green Setting (Gmax), s	* 20	41.0	41.0
Max Q Clear Time (g_c+I1), s	16.8	6.1	9.8
Green Ext Time (p_c), s	1.0	0.3	0.1

Intersection Summary	
HCM 6th Ctrl Delay	22.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	175	0	0	105	45	25	990	215	0	0	0
Future Volume (veh/h)	115	175	0	0	105	45	25	990	215	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	0.98		1.00	1.00		0.98	1.00		0.93			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1885	1900	1856	1870	1900			
Adj Flow Rate, veh/h	128	194	0	0	117	50	28	1100	239			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	0	0	0	0	1	0	3	2	0			
Cap, veh/h	360	543	0	0	355	152	74	3087	901			
Arrive On Green	0.09	0.09	0.00	0.00	0.29	0.29	0.59	0.60	0.60			
Sat Flow, veh/h	1218	1900	0	0	1243	531	123	5145	1501			
Grp Volume(v), veh/h	128	194	0	0	0	167	424	704	239			
Grp Sat Flow(s),veh/h/ln	1218	1900	0	0	0	1775	1864	1702	1501			
Q Serve(g_s), s	7.1	6.7	0.0	0.0	0.0	5.2	8.2	7.3	5.3			
Cycle Q Clear(g_c), s	12.3	6.7	0.0	0.0	0.0	5.2	8.2	7.3	5.3			
Prop In Lane	1.00		0.00	0.00		0.30	0.07		1.00			
Lane Grp Cap(c), veh/h	360	543	0	0	0	507	1119	2042	901			
V/C Ratio(X)	0.36	0.36	0.00	0.00	0.00	0.33	0.38	0.34	0.27			
Avail Cap(c_a), veh/h	360	543	0	0	0	507	1119	2042	901			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.98	0.98	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	30.7	25.7	0.0	0.0	0.0	19.7	7.3	7.1	6.7			
Incr Delay (d2), s/veh	2.7	1.8	0.0	0.0	0.0	1.7	1.0	0.5	0.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.5	3.4	0.0	0.0	0.0	2.3	3.0	2.3	1.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.4	27.5	0.0	0.0	0.0	21.4	8.2	7.5	7.4			
LnGrp LOS	C	C	A	A	A	C	A	A	A			
Approach Vol, veh/h		322			167			1367				
Approach Delay, s/veh		29.8			21.4			7.7				
Approach LOS		C			C			A				

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	46.0	24.0	24.0
Change Period (Y+Rc), s	* 4.7	4.0	4.0
Max Green Setting (Gmax), s	* 41	20.0	20.0
Max Q Clear Time (g_c+I1), s	10.2	14.3	7.2
Green Ext Time (p_c), s	1.5	0.1	0.1

Intersection Summary	
HCM 6th Ctrl Delay	12.8
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection ID and Name	use dropdown NB PhasingType	use dropdown SB PhasingType	use dropdown EB PhasingType	use dropdown WB PhasingType	Cycle Length	Lost Time	use dropdow Use Overlap Calculator	use dropdow NBR Overla	use dropdow SBR Overlap	use dropdow EBR Overlap	use dropdow WBR Overla	BEGIN CALCULATIONS	1 EBL	3 EBT	4 EBR	5 WBL	6 WBT	7 WBR	8 NBL	9 NBT	10 NBR	11 SBL	12 SBT	13 SBR	14	Critical Flow Calculator WBL/EBT	EBL/WBT	NBL/SBT	SBL/NBT	V/S f/W	V/S N/S	Overlap Critical Flow Calculator	NBR OV	NB OV V/S	SBR OV	SB OV V/S	EBR OV	EB OV V/S	WBR OV	WB OV V/S	V/S Overlap	Intersection V/C	HCM 6th Ctrl Delay	HCM 6th LOS	Synchro ID
6: SE Water Avenue & SE Clay Street	Permitted	Permitted		Permitted	80		8 No																																					
												Adj Flow Rate, veh/h	0	0	0	12	0	60	0	77	36	101	83	0 Protected	0.01	0.04	0.00	0.19			Right Turn Overlap	No		0.00 No		0.00 No		0.00 No		0.00							
												Sat Flow, veh/h	0	0	0	1810	0	1565	0	1870	1558	670	920	0 Permitted or Split	0.00	0.04	0.15	0.04			Right Turn Approach Phasing	Permitted		0.00 Permitted		0.00 No	0.00	0.00 No	0.00							
												V/S	0.00	0.00	0.00	0.01	0.00	0.04	0.00	0.04	0.02	0.15	0.09	0.00 selected phasing	0.00	0.04	0.15	0.04	0.04	0.15	Overlap Approach Phasing		0.00	0.04	0.00	0.04 Permitted	0.09 Permitted	0.09 N/A		0.09 N/A		**0.21**	**4**	**A**	6
7: SE Martin Luther King Jr. Boulevard & SE Stark Street	Protected	Protected		Protected	70		8 No	No	No	No	No																																	
												Adj Flow Rate, veh/h	0	222	12	117	43	0	0	0	0	136	1019	80 Protected	0.23	0.02	0.22	0.23			Right Turn Overlap	No		0.00 No		0.00 No		0.00 No		0.00							
												Sat Flow, veh/h	0	1782	96	1163	1826	0	0	0	0	586	4701	1495 Permitted or Split	0.13	0.10	0.23	0.00			Right Turn Approach Phasing		0.00	0.00	0.00	0.00 Protected	0.10 Protected	0.10 No OV										
												V/S	0.00	0.12	0.13	0.10	0.02	0.00	0.00	0.00	0.00	0.23	0.22	0.05 selected phasing	0.23	0.02	0.23	0.23	0.23	0.23	Overlap Approach Phasing	Protected		0.13 Protected	0.13	0.00	0.22	0.00	0.22 N/A		**0.52**	**23**	**C**	7
8: SE Grand Avenue & SE Stark Street/ SE 9 Protected			Protected	Protected	70		8 No																																					
												Adj Flow Rate, veh/h	128	194	0	0	117	50	28	1100	239	0	0	0 Protected	0.10	0.20	0.23	0.21			Right Turn Overlap	No		0.00 No		0.00 No		0.00 No		0.00							
												Sat Flow, veh/h	1218	1900	0	0	1243	531	123	5145	1501	0	0	0 Permitted or Split	0.11	0.09	0.00	0.23			Right Turn Approach Phasing	Protected		0.23 Protected		0.23 Protected		0.11 Protected		0.11 No OV							
												V/S	0.11	0.10	0.00	0.00	0.09	0.09	0.23	0.21	0.16	0.00	0.00	0.00 selected phasing	0.10	0.20	0.23	0.23	0.20	0.23	Overlap Approach Phasing	Protected		0.10 Protected		0.10 Protected		0.21 Protected		0.21 N/A		**0.48**	**13**	**B**	8
												Adj Flow Rate, veh/h												Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No		0.00 No		0.00 No		0.00 No		0.00							
												Sat Flow, veh/h												Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 No OV							
												V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 N/A		**0.00**	**0**	**A**

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	25	0	200	110	0
Future Vol, veh/h	5	25	0	200	110	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	55	55	55	55	55	55
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	45	0	364	200	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	564	200	-	0	-	0
Stage 1	200	-	-	-	-	-
Stage 2	364	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	490	846	0	-	-	0
Stage 1	838	-	0	-	-	0
Stage 2	707	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	490	846	-	-	-	-
Mov Cap-2 Maneuver	490	-	-	-	-	-
Stage 1	838	-	-	-	-	-
Stage 2	707	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	755	-
HCM Lane V/C Ratio	-	0.072	-
HCM Control Delay (s)	-	10.1	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0.2	-

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	20	110	35	0	5	0	170	5	5	130	0
Future Vol, veh/h	25	20	110	35	0	5	0	170	5	5	130	0
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	35	28	155	49	0	7	0	239	7	7	183	0
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	9.1	9.1	10.2	9.7
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	0%	56%	0%	88%	4%
Vol Thru, %	97%	44%	0%	0%	96%
Vol Right, %	3%	0%	100%	12%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	175	45	110	40	135
LT Vol	0	25	0	35	5
Through Vol	170	20	0	0	130
RT Vol	5	0	110	5	0
Lane Flow Rate	246	63	155	56	190
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.329	0.104	0.211	0.085	0.258
Departure Headway (Hd)	4.8	5.886	4.898	5.448	4.893
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	744	605	727	650	728
Service Time	2.864	3.662	2.674	3.544	2.962
HCM Lane V/C Ratio	0.331	0.104	0.213	0.086	0.261
HCM Control Delay	10.2	9.4	9	9.1	9.7
HCM Lane LOS	B	A	A	A	A
HCM 95th-tile Q	1.4	0.3	0.8	0.3	1

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	0	0	90	0	0	0	155	25	30	300	0
Future Vol, veh/h	5	0	0	90	0	0	0	155	25	30	300	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	7	0	0	130	0	0	0	225	36	43	435	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	764	782	435	764	764	243	435	0	0	261	0	0
Stage 1	521	521	-	243	243	-	-	-	-	-	-	-
Stage 2	243	261	-	521	521	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	323	328	625	323	336	801	1135	-	-	1315	-	-
Stage 1	542	535	-	765	708	-	-	-	-	-	-	-
Stage 2	765	696	-	542	535	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	312	314	625	312	322	801	1135	-	-	1315	-	-
Mov Cap-2 Maneuver	312	314	-	312	322	-	-	-	-	-	-	-
Stage 1	542	512	-	765	708	-	-	-	-	-	-	-
Stage 2	765	696	-	519	512	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.8	24.6	0	0.7
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1135	-	-	312	312	1315	-	-
HCM Lane V/C Ratio	-	-	-	0.023	0.418	0.033	-	-
HCM Control Delay (s)	0	-	-	16.8	24.6	7.8	0	-
HCM Lane LOS	A	-	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	2	0.1	-	-

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	15	15	35	40	0	30	0	135	10	60	330	0
Future Vol, veh/h	15	15	35	40	0	30	0	135	10	60	330	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	70	70	70	70	70	70	70	70	70
Heavy Vehicles, %	0	0	51	0	0	0	0	0	0	0	0	0
Mvmt Flow	21	21	50	57	0	43	0	193	14	86	471	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	865	850	471	879	843	200	471	0	0	207	0	0
Stage 1	643	643	-	200	200	-	-	-	-	-	-	-
Stage 2	222	207	-	679	643	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.71	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.759	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	276	300	504	270	303	846	1101	-	-	1376	-	-
Stage 1	465	472	-	806	739	-	-	-	-	-	-	-
Stage 2	785	734	-	445	472	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	245	275	504	214	277	846	1101	-	-	1376	-	-
Mov Cap-2 Maneuver	245	275	-	214	277	-	-	-	-	-	-	-
Stage 1	465	432	-	806	739	-	-	-	-	-	-	-
Stage 2	745	734	-	349	432	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.9	21.7	0	1.2
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1101	-	-	351	315	1376	-	-
HCM Lane V/C Ratio	-	-	-	0.265	0.317	0.062	-	-
HCM Control Delay (s)	0	-	-	18.9	21.7	7.8	0	-
HCM Lane LOS	A	-	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1	1.3	0.2	-	-

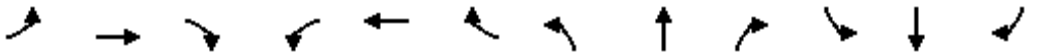
Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	40	0	0	0	0	0	45	85	5	5	155	265
Future Vol, veh/h	40	0	0	0	0	0	45	85	5	5	155	265
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	61	61	61	61	61	61	61	61	61
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	66	0	0	0	0	0	74	139	8	8	254	434

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	778	782	471	688	0	0	147	0	0
Stage 1	487	487	-	-	-	-	-	-	-
Stage 2	291	295	-	-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	368	328	597	916	-	-	1447	-	-
Stage 1	622	554	-	-	-	-	-	-	-
Stage 2	763	673	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	332	0	597	916	-	-	1447	-	-
Mov Cap-2 Maneuver	332	0	-	-	-	-	-	-	-
Stage 1	567	0	-	-	-	-	-	-	-
Stage 2	755	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.5	3.1	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	916	-	-	332	-	1447	-	-
HCM Lane V/C Ratio	0.081	-	-	0.198	-	0.006	-	-
HCM Control Delay (s)	9.3	0	-	18.5	0	7.5	-	-
HCM Lane LOS	A	A	-	C	A	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.7	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	80	0	55	5	80	75	0
Future Volume (veh/h)	0	0	0	0	0	80	0	55	5	80	75	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1900	1900	1796	1900	0
Adj Flow Rate, veh/h				0	0	104	0	71	6	104	97	0
Peak Hour Factor				0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %				0	0	0	0	0	0	7	0	0
Cap, veh/h				395	0	352	0	739	626	513	393	0
Arrive On Green				0.00	0.00	0.22	0.00	0.39	0.39	0.39	0.39	0.00
Sat Flow, veh/h				1810	0	1610	0	1900	1610	630	1009	0
Grp Volume(v), veh/h				0	0	104	0	71	6	201	0	0
Grp Sat Flow(s),veh/h/ln				1810	0	1610	0	1900	1610	1639	0	0
Q Serve(g_s), s				0.0	0.0	1.1	0.0	0.5	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				0.0	0.0	1.1	0.0	0.5	0.0	1.5	0.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.52		0.00
Lane Grp Cap(c), veh/h				395	0	352	0	739	626	906	0	0
V/C Ratio(X)				0.00	0.00	0.30	0.00	0.10	0.01	0.22	0.00	0.00
Avail Cap(c_a), veh/h				3197	0	2845	0	3357	2845	3061	0	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh				0.0	0.0	6.7	0.0	4.0	3.8	4.3	0.0	0.0
Incr Delay (d2), s/veh				0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.3	0.0	0.1	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	7.3	0.0	4.0	3.8	4.3	0.0	0.0
LnGrp LOS				A	A	A	A	A	A	A	A	A
Approach Vol, veh/h					104			77			201	
Approach Delay, s/veh					7.3			4.0			4.3	
Approach LOS					A			A			A	

Timer - Assigned Phs	2			6		8						
Phs Duration (G+Y+Rc), s	11.9			11.9		8.4						
Change Period (Y+Rc), s	4.0			4.0		4.0						
Max Green Setting (Gmax), s	36.0			36.0		36.0						
Max Q Clear Time (g_c+I1), s	2.5			3.5		3.1						
Green Ext Time (p_c), s	0.3			0.9		0.9						

Intersection Summary		
HCM 6th Ctrl Delay		5.1
HCM 6th LOS		A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	165	5	40	15	0	0	0	0	50	340	65
Future Volume (veh/h)	0	165	5	40	15	0	0	0	0	50	340	65
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1870	1707
Adj Flow Rate, veh/h	0	217	7	53	20	0				66	447	86
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	2	13
Cap, veh/h	0	1071	35	725	1113	0				190	1383	421
Arrive On Green	0.00	0.59	0.59	0.59	0.59	0.00				0.29	0.30	0.30
Sat Flow, veh/h	0	1829	59	1175	1900	0				633	4610	1402
Grp Volume(v), veh/h	0	0	224	53	20	0				192	321	86
Grp Sat Flow(s),veh/h/ln	0	0	1888	1175	1900	0				1839	1702	1402
Q Serve(g_s), s	0.0	0.0	3.9	1.6	0.3	0.0				5.7	5.1	3.2
Cycle Q Clear(g_c), s	0.0	0.0	3.9	5.5	0.3	0.0				5.7	5.1	3.2
Prop In Lane	0.00		0.03	1.00		0.00				0.34		1.00
Lane Grp Cap(c), veh/h	0	0	1106	725	1113	0				552	1021	421
V/C Ratio(X)	0.00	0.00	0.20	0.07	0.02	0.00				0.35	0.31	0.20
Avail Cap(c_a), veh/h	0	0	1106	725	1113	0				552	1021	421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.90	0.99	0.99	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	6.8	8.1	6.1	0.0				19.3	18.9	18.3
Incr Delay (d2), s/veh	0.0	0.0	0.4	0.2	0.0	0.0				1.7	0.8	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.4	0.4	0.1	0.0				2.6	2.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	7.2	8.3	6.1	0.0				21.0	19.7	19.4
LnGrp LOS	A	A	A	A	A	A				C	B	B
Approach Vol, veh/h		224			73						599	
Approach Delay, s/veh		7.2			7.7						20.1	
Approach LOS		A			A						C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	25.0	45.0	45.0
Change Period (Y+Rc), s	* 4.8	4.0	4.0
Max Green Setting (Gmax), s	* 20	41.0	41.0
Max Q Clear Time (g_c+I1), s	7.7	5.9	7.5
Green Ext Time (p_c), s	0.8	0.3	0.0

Intersection Summary	
HCM 6th Ctrl Delay	15.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	60	0	0	45	25	10	455	45	0	0	0
Future Volume (veh/h)	155	60	0	0	45	25	10	455	45	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		0.98	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1870	1900			
Adj Flow Rate, veh/h	174	67	0	0	51	28	11	511	51			
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89			
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	0			
Cap, veh/h	438	543	0	0	327	179	63	3099	945			
Arrive On Green	0.29	0.29	0.00	0.00	0.29	0.29	0.59	0.60	0.60			
Sat Flow, veh/h	1330	1900	0	0	1143	627	105	5165	1576			
Grp Volume(v), veh/h	174	67	0	0	0	79	196	326	51			
Grp Sat Flow(s),veh/h/ln	1330	1900	0	0	0	1770	1865	1702	1576			
Q Serve(g_s), s	7.9	1.8	0.0	0.0	0.0	2.3	3.3	3.0	0.9			
Cycle Q Clear(g_c), s	10.2	1.8	0.0	0.0	0.0	2.3	3.3	3.0	0.9			
Prop In Lane	1.00		0.00	0.00		0.35	0.06		1.00			
Lane Grp Cap(c), veh/h	438	543	0	0	0	506	1119	2042	945			
V/C Ratio(X)	0.40	0.12	0.00	0.00	0.00	0.16	0.18	0.16	0.05			
Avail Cap(c_a), veh/h	438	543	0	0	0	506	1119	2042	945			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.99	0.99	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	22.5	18.5	0.0	0.0	0.0	18.7	6.3	6.2	5.8			
Incr Delay (d2), s/veh	2.6	0.5	0.0	0.0	0.0	0.7	0.3	0.2	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.7	0.8	0.0	0.0	0.0	1.0	1.2	0.9	0.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.2	19.0	0.0	0.0	0.0	19.3	6.6	6.4	5.9			
LnGrp LOS	C	B	A	A	A	B	A	A	A			
Approach Vol, veh/h		241			79			573				
Approach Delay, s/veh		23.4			19.3			6.4				
Approach LOS		C			B			A				

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	46.0	24.0	24.0
Change Period (Y+Rc), s	* 4.7	4.0	4.0
Max Green Setting (Gmax), s	* 41	20.0	20.0
Max Q Clear Time (g_c+I1), s	5.3	12.2	4.3
Green Ext Time (p_c), s	0.6	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	12.1
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection ID and Name	use dropdown NB PhasingType	use dropdown SB PhasingType	use dropdown EB PhasingType	use dropdown WB PhasingType	Cycle Length	Lost Time	use dropdow Use Overlap Calculator	use dropdow NBR Overla	use dropdow SBR Overlap	use dropdow EBR Overlap	use dropdow WBR Overla	use dropdo
6: SE Water Avenue & SE Clay Street	Permitted	Permitted		Permitted	80	8	No					
7: SE Martin Luther King Jr. Boulevard & SE Stark Street	Protected	Protected	Protected	Protected	70	8	No	No	No	No	No	
8: SE Grand Avenue & SE Stark Street/ SE 9 Protected		Protected	Protected		70	8	No					

BEGIN CALCULATIONS		1 EBL	3 EBT	4 EBR	5 WBL	6 WBT	7 WBR	8 NBL	9 NBT	10 NBR	11 SBL	12 SBT	13 SBR	14
	Adj Flow Rate, veh/h	0	0	0	0	0	104	0	71	6	104	97	0	Protected
	Sat Flow, veh/h	0	0	0	1810	0	1610	0	1900	1610	630	1009	0	Permitted or Split
	V/S	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.04	0.00	0.17	0.10	0.00	selected phasing
	Adj Flow Rate, veh/h	0	217	7	53	20	0	0	0	0	66	447	86	Protected
	Sat Flow, veh/h	0	1829	59	1175	1900	0	0	0	0	633	4610	1402	Permitted or Split
	V/S	0.00	0.12	0.12	0.05	0.01	0.00	0.00	0.00	0.00	0.10	0.10	0.06	selected phasing
	Adj Flow Rate, veh/h	174	67	0	0	51	28	11	511	51	0	0	0	Protected
	Sat Flow, veh/h	1330	1900	0	0	1143	627	105	5165	1576	0	0	0	Permitted or Split
	V/S	0.13	0.04	0.00	0.00	0.04	0.04	0.10	0.10	0.03	0.00	0.00	0.00	selected phasing
	Adj Flow Rate, veh/h													Protected
	Sat Flow, veh/h													Permitted or Split
	V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	45	0	305	120	0
Future Vol, veh/h	5	45	0	305	120	0
Conflicting Peds, #/hr	1	0	9	0	0	9
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	1	7	0
Mvmt Flow	7	59	0	401	158	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	560	158	-	0	-	0
Stage 1	158	-	-	-	-	-
Stage 2	402	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	493	893	0	-	-	0
Stage 1	875	-	0	-	-	0
Stage 2	680	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	493	893	-	-	-	-
Mov Cap-2 Maneuver	493	-	-	-	-	-
Stage 1	875	-	-	-	-	-
Stage 2	680	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	826	-
HCM Lane V/C Ratio	-	0.08	-
HCM Control Delay (s)	-	9.7	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.3	-

Intersection	
Intersection Delay, s/veh	11.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	185	110	300	5	0	15	0	105	20	10	155	0
Future Vol, veh/h	185	110	300	5	0	15	0	105	20	10	155	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	1	0	0	0	0	0	0	3	0	0	6	0
Mvmt Flow	201	120	326	5	0	16	0	114	22	11	168	0
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	12.5	8.5	10.1	10.7
HCM LOS	B	A	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	0%	63%	0%	25%	6%
Vol Thru, %	84%	37%	0%	0%	94%
Vol Right, %	16%	0%	100%	75%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	125	295	300	20	165
LT Vol	0	185	0	5	10
Through Vol	105	110	0	0	155
RT Vol	20	0	300	15	0
Lane Flow Rate	136	321	326	22	179
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.208	0.507	0.421	0.032	0.274
Departure Headway (Hd)	5.516	5.69	4.651	5.286	5.502
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	644	628	766	681	647
Service Time	3.612	3.472	2.433	3.286	3.591
HCM Lane V/C Ratio	0.211	0.511	0.426	0.032	0.277
HCM Control Delay	10.1	14.3	10.8	8.5	10.7
HCM Lane LOS	B	B	B	A	B
HCM 95th-tile Q	0.8	2.9	2.1	0.1	1.1

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	5	5	40	5	10	5	135	30	35	335	10
Future Vol, veh/h	0	5	5	40	5	10	5	135	30	35	335	10
Conflicting Peds, #/hr	2	0	0	0	0	2	5	0	7	7	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	6	0	0	2	0
Mvmt Flow	0	6	6	44	6	11	6	150	33	39	372	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	650	663	383	648	652	176	388	0	0	190	0	0
Stage 1	461	461	-	186	186	-	-	-	-	-	-	-
Stage 2	189	202	-	462	466	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	385	384	669	386	390	872	1182	-	-	1396	-	-
Stage 1	584	569	-	820	750	-	-	-	-	-	-	-
Stage 2	817	738	-	584	566	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	361	364	666	364	369	865	1176	-	-	1387	-	-
Mov Cap-2 Maneuver	361	364	-	364	369	-	-	-	-	-	-	-
Stage 1	578	546	-	809	740	-	-	-	-	-	-	-
Stage 2	794	728	-	553	543	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.8	15.4	0.2	0.7
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1176	-	-	471	407	1387	-	-
HCM Lane V/C Ratio	0.005	-	-	0.024	0.15	0.028	-	-
HCM Control Delay (s)	8.1	0	-	12.8	15.4	7.7	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.5	0.1	-	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	5	5	0	15	10	30	15	135	15	65	295	20
Future Vol, veh/h	5	5	0	15	10	30	15	135	15	65	295	20
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	11	11	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	6	0	0	2	0
Mvmt Flow	5	5	0	16	11	32	16	142	16	68	311	21

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	664	661	324	653	663	161	334	0	0	169	0	0
Stage 1	460	460	-	193	193	-	-	-	-	-	-	-
Stage 2	204	201	-	460	470	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	377	385	722	383	384	889	1237	-	-	1421	-	-
Stage 1	585	569	-	813	745	-	-	-	-	-	-	-
Stage 2	803	739	-	585	563	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	335	353	721	354	352	880	1235	-	-	1406	-	-
Mov Cap-2 Maneuver	335	353	-	354	352	-	-	-	-	-	-	-
Stage 1	576	534	-	793	727	-	-	-	-	-	-	-
Stage 2	752	721	-	545	529	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.8	12.7	0.7	1.3
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1235	-	-	344	524	1406	-	-
HCM Lane V/C Ratio	0.013	-	-	0.031	0.11	0.049	-	-
HCM Control Delay (s)	8	0	-	15.8	12.7	7.7	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.4	0.2	-	-

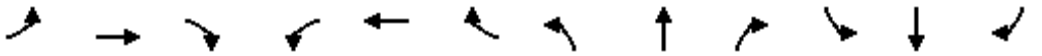
Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	60	5	10	0	0	0	25	105	5	15	175	130
Future Vol, veh/h	60	5	10	0	0	0	25	105	5	15	175	130
Conflicting Peds, #/hr	0	0	1	1	0	0	2	0	3	3	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	10	0	0	0	0	0	0	0	0	0	0	2
Mvmt Flow	65	5	11	0	0	0	27	114	5	16	190	141

Major/Minor	Minor2					Major1			Major2		
Conflicting Flow All	466	471	264			333	0	0	122	0	0
Stage 1	295	295	-			-	-	-	-	-	-
Stage 2	171	176	-			-	-	-	-	-	-
Critical Hdwy	6.5	6.5	6.2			4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.5	5.5	-			-	-	-	-	-	-
Critical Hdwy Stg 2	5.5	5.5	-			-	-	-	-	-	-
Follow-up Hdwy	3.59	4	3.3			2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	541	494	780			1238	-	-	1478	-	-
Stage 1	738	673	-			-	-	-	-	-	-
Stage 2	840	757	-			-	-	-	-	-	-
Platoon blocked, %							-	-		-	-
Mov Cap-1 Maneuver	519	0	778			1236	-	-	1478	-	-
Mov Cap-2 Maneuver	519	0	-			-	-	-	-	-	-
Stage 1	720	0	-			-	-	-	-	-	-
Stage 2	827	0	-			-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.6	1.5	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1236	-	-	519	778	1478	-	-
HCM Lane V/C Ratio	0.022	-	-	0.136	0.014	0.011	-	-
HCM Control Delay (s)	8	0	-	13	9.7	7.5	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	10	0	55	0	80	45	85	100	0
Future Volume (veh/h)	0	0	0	10	0	55	0	80	45	85	100	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.97	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h				11	0	63	0	92	52	98	115	0
Peak Hour Factor				0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				322	0	285	0	816	673	486	472	0
Arrive On Green				0.18	0.00	0.18	0.00	0.43	0.43	0.43	0.43	0.00
Sat Flow, veh/h				1810	0	1604	0	1900	1568	532	1100	0
Grp Volume(v), veh/h				11	0	63	0	92	52	213	0	0
Grp Sat Flow(s),veh/h/ln				1810	0	1604	0	1900	1568	1632	0	0
Q Serve(g_s), s				0.1	0.0	0.7	0.0	0.6	0.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s				0.1	0.0	0.7	0.0	0.6	0.4	1.5	0.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.46		0.00
Lane Grp Cap(c), veh/h				322	0	285	0	816	673	959	0	0
V/C Ratio(X)				0.03	0.00	0.22	0.00	0.11	0.08	0.22	0.00	0.00
Avail Cap(c_a), veh/h				3199	0	2835	0	3359	2771	3022	0	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh				6.9	0.0	7.2	0.0	3.5	3.4	3.7	0.0	0.0
Incr Delay (d2), s/veh				0.1	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.2	0.0	0.1	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				7.0	0.0	7.7	0.0	3.5	3.4	3.8	0.0	0.0
LnGrp LOS				A	A	A	A	A	A	A	A	A
Approach Vol, veh/h					74			144			213	
Approach Delay, s/veh					7.6			3.5			3.8	
Approach LOS					A			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	12.7		12.7		7.6			
Change Period (Y+Rc), s	4.0		4.0		4.0			
Max Green Setting (Gmax), s	36.0		36.0		36.0			
Max Q Clear Time (g_c+I1), s	2.6		3.5		2.7			
Green Ext Time (p_c), s	0.6		1.0		0.6			

Intersection Summary		
HCM 6th Ctrl Delay	4.3	
HCM 6th LOS	A	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	205	15	100	50	0	0	0	0	110	825	65
Future Volume (veh/h)	0	205	15	100	50	0	0	0	0	110	825	65
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.99		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1870	0				1900	1885	1811
Adj Flow Rate, veh/h	0	253	19	123	62	0				136	1019	80
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81				0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	2	0				0	1	6
Cap, veh/h	0	522	39	305	561	0				343	2753	870
Arrive On Green	0.00	0.30	0.30	0.30	0.30	0.00				0.57	0.59	0.59
Sat Flow, veh/h	0	1739	131	1117	1870	0				586	4701	1486
Grp Volume(v), veh/h	0	0	272	123	62	0				431	724	80
Grp Sat Flow(s),veh/h/ln	0	0	1870	1117	1870	0				1856	1716	1486
Q Serve(g_s), s	0.0	0.0	8.3	7.1	1.7	0.0				8.8	7.8	1.7
Cycle Q Clear(g_c), s	0.0	0.0	8.3	15.4	1.7	0.0				8.8	7.8	1.7
Prop In Lane	0.00		0.07	1.00		0.00				0.32		1.00
Lane Grp Cap(c), veh/h	0	0	561	305	561	0				1087	2010	870
V/C Ratio(X)	0.00	0.00	0.48	0.40	0.11	0.00				0.40	0.36	0.09
Avail Cap(c_a), veh/h	0	0	561	305	561	0				1087	2010	870
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.71	0.95	0.95	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	20.1	26.4	17.7	0.0				7.9	7.6	6.3
Incr Delay (d2), s/veh	0.0	0.0	2.1	3.7	0.4	0.0				1.1	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	3.7	2.1	0.7	0.0				3.2	2.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	22.2	30.1	18.1	0.0				9.0	8.1	6.6
LnGrp LOS	A	A	C	C	B	A				A	A	A
Approach Vol, veh/h		272			185						1235	
Approach Delay, s/veh		22.2			26.1						8.3	
Approach LOS		C			C						A	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	45.0	25.0	25.0
Change Period (Y+Rc), s	* 4.8	4.0	4.0
Max Green Setting (Gmax), s	* 40	21.0	21.0
Max Q Clear Time (g_c+I1), s	10.8	10.3	17.4
Green Ext Time (p_c), s	2.1	0.3	0.0

Intersection Summary	
HCM 6th Ctrl Delay	12.5
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	195	0	0	105	50	45	875	190	0	0	0
Future Volume (veh/h)	120	195	0	0	105	50	45	875	190	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		0.97	1.00		0.94			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1870	1870	1885	1900			
Adj Flow Rate, veh/h	132	214	0	0	115	55	49	962	209			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91			
Percent Heavy Veh, %	0	0	0	0	0	2	2	1	0			
Cap, veh/h	359	543	0	0	343	164	143	2987	889			
Arrive On Green	0.19	0.19	0.00	0.00	0.29	0.29	0.59	0.59	0.59			
Sat Flow, veh/h	1220	1900	0	0	1200	574	242	5062	1506			
Grp Volume(v), veh/h	132	214	0	0	0	170	379	632	209			
Grp Sat Flow(s),veh/h/ln	1220	1900	0	0	0	1774	1873	1716	1506			
Q Serve(g_s), s	7.0	6.9	0.0	0.0	0.0	5.3	7.3	6.5	4.6			
Cycle Q Clear(g_c), s	12.3	6.9	0.0	0.0	0.0	5.3	7.3	6.5	4.6			
Prop In Lane	1.00		0.00	0.00		0.32	0.13		1.00			
Lane Grp Cap(c), veh/h	359	543	0	0	0	507	1105	2024	889			
V/C Ratio(X)	0.37	0.39	0.00	0.00	0.00	0.34	0.34	0.31	0.24			
Avail Cap(c_a), veh/h	359	543	0	0	0	507	1105	2024	889			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.86	0.86	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	27.6	23.0	0.0	0.0	0.0	19.8	7.4	7.2	6.8			
Incr Delay (d2), s/veh	2.5	1.8	0.0	0.0	0.0	1.8	0.8	0.4	0.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.4	3.3	0.0	0.0	0.0	2.3	2.7	2.1	1.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.1	24.8	0.0	0.0	0.0	21.5	8.2	7.6	7.5			
LnGrp LOS	C	C	A	A	A	C	A	A	A			
Approach Vol, veh/h		346			170			1220				
Approach Delay, s/veh		26.9			21.5			7.8				
Approach LOS		C			C			A				

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	46.0	24.0	24.0
Change Period (Y+Rc), s	* 4.7	4.0	4.0
Max Green Setting (Gmax), s	* 41	20.0	20.0
Max Q Clear Time (g_c+I1), s	9.3	14.3	7.3
Green Ext Time (p_c), s	1.3	0.1	0.1

Intersection Summary	
HCM 6th Ctrl Delay	12.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection ID and Name	use dropdown NB PhasingType	use dropdown SB PhasingType	use dropdown EB PhasingType	use dropdown WB PhasingType	Cycle Length	Lost Time	use dropdown Use Overlap Calculator	use dropdov NBR Overla	use dropdow SBR Overlap	use dropdow EBR Overlap	use dropdov WBR Overla	BEGIN CALCULATIONS
6: SE Water Avenue & SE Clay Street	Permitted	Permitted		Permitted	80	8	No					
7: SE Martin Luther King Jr. Boulevard & SE Stark Street		Protected	Protected	Protected	70	8	No	No	No	No	No	
8: SE Grand Avenue & SE Stark Street/ SE S	Protected		Protected	Protected	70	8	No					
							No					
							No					
							No					
							No					
							No					
							No					
							No					
							No					
							No					
							No					

1 3 4 5 6 7 8 9 10 11 12 13 14

Critical Flow Calculator

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		WBL/EBT	EBL/WBT	NBL/SBT	SBL/NBT	V/S E/W	V/S N/S
Adj Flow Rate, veh/h	0	0	0	11	0	63	0	92	52	98	115	0	Protected	0.01	0.04	0.10	0.23		
Sat Flow, veh/h	0	0	0	1810	0	1604	0	1900	1568	532	1100	0	Permitted or Split	0.00	0.04	0.18	0.05		
V/S	0.00	0.00	0.00	0.01	0.00	0.04	0.00	0.05	0.03	0.18	0.10	0.00	selected phasing	0.00	0.04	0.18	0.05	0.04	0.18
Adj Flow Rate, veh/h	0	253	19	123	62	0	0	0	0	136	1019	80	Protected	0.26	0.03	0.22	0.23		
Sat Flow, veh/h	0	1739	131	1117	1870	0	0	0	0	586	4701	1486	Permitted or Split	0.15	0.11	0.23	0.00		
V/S	0.00	0.15	0.15	0.11	0.03	0.00	0.00	0.00	0.00	0.23	0.22	0.05	selected phasing	0.26	0.03	0.23	0.23	0.26	0.23
Adj Flow Rate, veh/h	132	214	0	0	115	55	49	962	209	0	0	0	Protected	0.11	0.20	0.20	0.19		
Sat Flow, veh/h	1220	1900	0	0	1200	574	242	5062	1506	0	0	0	Permitted or Split	0.11	0.10	0.00	0.20		
V/S	0.11	0.11	0.00	0.00	0.10	0.10	0.20	0.19	0.14	0.00	0.00	0.00	selected phasing	0.11	0.20	0.20	0.20	0.20	0.20
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00
Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00		
Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00		
V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00

Overlap Critical Flow Calculator

	NBR OV	NB OV V/S	SBR OV	SB OV V/S	EBR OV	EB OV V/S	WBR OV	WB OV V/S	V/S Overlap	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
Right Turn Approach Phasing	Permitted	0.00	Permitted	0.00	0.00	0.00	0.00	0.00	No OV	
Overlap Approach Phasing	0.00	0.04	0.00	0.04	Permitted	0.10	Permitted	0.10	N/A	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	Protected	0.11	Protected	0.11	No OV	
Overlap Approach Phasing	Protected	0.15	Protected	0.15	0.00	0.22	0.00	0.22	N/A	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
Right Turn Approach Phasing	Protected	0.20	Protected	0.20	Protected	0.11	Protected	0.11	No OV	
Overlap Approach Phasing	Protected	0.11	Protected	0.11	Protected	0.19	Protected	0.19	N/A	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV	
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV	
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV	
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV	
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV	
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV	
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV	
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV	
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV	
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV	
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV	
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV	
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV	
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV	
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV	
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	
Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00
Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV	
Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	

Intersection V/C	HCM 6th Ctrl Delay	HCM 6th LOS	Synchro ID
0.25	**4**	**A**	6
0.55	**13**	**B**	7
0.46	**13**	**B**	8
0.00	**0**	**A**	
0.00	**0**	**A**	
0.00	**0**	**A**	
0.00	**0**	**A**	
0.00	**0**	**A**	
0.00	**0**	**A**	
0.00	**0**	**A**	
0.00	**0**	**A**	
0.00	**0**	**A**	
0.00	**0**	**A**	
0.00	**0**	**A**	
0.00	**0**	**A**	
0.00	**0**	**A**	
0.00	**0**	**A**	
0.00	**0**	**A**	
0.00	**0**	**A**	

List of Phasing Types
Protected
Permitted
Split

List of Overlap Types
Yes
No

Sheet Description:
This sheet reads in the adjusted flow rate and the saturation flow rate from Synchro and divides them to calculated the V/S for each movement.
The critical flow calculator calculates the critical v/s for each conflicting phase pair.
for protected phases, this v/s is the left turn v/s plus the max of the opposing movement v/s
for the permitted and split phases, this v/s is the max of the three movement v/s
The next step selects the proper v/s based on phasing provided
V/S by east-west and north-south is selected by taking the max of the phase pairs or by adding them (if split phasing)
If overlap calculator was selected in input section and overlap phases were indicated, then overlap v/s for intersection is calculated. See details below
If the right turn v/s is greater than the through v/s for the right turn overlap approach, then the right turn is assumed the critical movement and intersection v/c calc will use the v/s overlap instead of approach v/
The final step in v/c calculation uses the approach v/s ratios, cycle length, and lost time to calculate overall intersection v/c
Delay and LOS are read directly from the HCM 6 report

Overlap Calculator Details
Overlap calculator reads in whether an overlap phase is in use and what type of phasing is associated with the right turn approach and the overlapped approach
V/S is read in for right turn movement, and remaining approaches from previous calculations
-right turn overlap v/s is just the v/s for the right turn movement (i.e. NBR)
-right turn approach v/s is the critical v/s associated with the right turn approaches (i.e. NB/SB) and is calculated differently for protected vs split
-overlap approach v/s is the critical v/s associated with the overlap approaches (i.e. EB/WB) and is calculated differently for protected vs split phasing
The v/s overlap column sums the 3 v/s values for the overlap phasing to get the total v/s overlap to be used in the v/c calculation
If there are overlaps for both approaches (i.e. N/S or E/W), the v/s overlap will use the greater of the two for most conservative approach
Use Overlap Calculator' must be enabled and 'Use OV V/S' must be showing in V/S Overlap column in order for overlap v/s to be used in final v/c calculation

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	30	0	265	120	0
Future Vol, veh/h	10	30	0	265	120	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	1	0	0
Mvmt Flow	12	35	0	308	140	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	448	140	-	0	-	0
Stage 1	140	-	-	-	-	-
Stage 2	308	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	572	913	0	-	-	0
Stage 1	892	-	0	-	-	0
Stage 2	750	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	572	913	-	-	-	-
Mov Cap-2 Maneuver	572	-	-	-	-	-
Stage 1	892	-	-	-	-	-
Stage 2	750	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	795	-
HCM Lane V/C Ratio	-	0.059	-
HCM Control Delay (s)	-	9.8	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.2	-

Intersection	
Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	75	65	195	40	0	5	0	185	5	5	145	0
Future Vol, veh/h	75	65	195	40	0	5	0	185	5	5	145	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	1	0	0	0	0	0	0	0	0	0
Mvmt Flow	86	75	224	46	0	6	0	213	6	6	167	0
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	10.1	9.2	10.6	10.1
HCM LOS	B	A	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	0%	54%	0%	89%	3%
Vol Thru, %	97%	46%	0%	0%	97%
Vol Right, %	3%	0%	100%	11%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	190	140	195	45	150
LT Vol	0	75	0	40	5
Through Vol	185	65	0	0	145
RT Vol	5	0	195	5	0
Lane Flow Rate	218	161	224	52	172
Geometry Grp	2	7	7	5	2
Degree of Util (X)	0.312	0.26	0.301	0.082	0.25
Departure Headway (Hd)	5.139	5.809	4.832	5.723	5.226
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	692	611	735	630	679
Service Time	3.233	3.603	2.625	3.723	3.326
HCM Lane V/C Ratio	0.315	0.264	0.305	0.083	0.253
HCM Control Delay	10.6	10.7	9.7	9.2	10.1
HCM Lane LOS	B	B	A	A	B
HCM 95th-tile Q	1.3	1	1.3	0.3	1

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	5	10	95	5	5	5	165	30	35	350	10
Future Vol, veh/h	5	5	10	95	5	5	5	165	30	35	350	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	8	0	0	1	0
Mvmt Flow	6	6	12	116	6	6	6	201	37	43	427	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	757	769	433	760	757	220	439	0	0	238	0	0
Stage 1	519	519	-	232	232	-	-	-	-	-	-	-
Stage 2	238	250	-	528	525	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	327	334	627	325	339	825	1132	-	-	1341	-	-
Stage 1	544	536	-	775	716	-	-	-	-	-	-	-
Stage 2	770	704	-	538	533	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	308	318	627	303	323	825	1132	-	-	1341	-	-
Mov Cap-2 Maneuver	308	318	-	303	323	-	-	-	-	-	-	-
Stage 1	541	513	-	770	712	-	-	-	-	-	-	-
Stage 2	753	700	-	499	511	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.2	24.2	0.2	0.7
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1132	-	-	417	313	1341	-	-
HCM Lane V/C Ratio	0.005	-	-	0.058	0.409	0.032	-	-
HCM Control Delay (s)	8.2	0	-	14.2	24.2	7.8	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	1.9	0.1	-	-

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	20	15	40	50	5	35	5	145	10	70	380	5
Future Vol, veh/h	20	15	40	50	5	35	5	145	10	70	380	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	1	0
Mvmt Flow	24	18	48	60	6	42	6	173	12	83	452	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	836	818	455	845	815	179	458	0	0	185	0	0
Stage 1	621	621	-	191	191	-	-	-	-	-	-	-
Stage 2	215	197	-	654	624	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	289	313	609	285	314	869	1114	-	-	1402	-	-
Stage 1	478	482	-	815	746	-	-	-	-	-	-	-
Stage 2	792	742	-	459	481	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	253	286	609	234	287	869	1114	-	-	1402	-	-
Mov Cap-2 Maneuver	253	286	-	234	287	-	-	-	-	-	-	-
Stage 1	475	444	-	810	742	-	-	-	-	-	-	-
Stage 2	743	738	-	374	443	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.4	20.9	0.3	1.2
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1114	-	-	380	332	1402	-	-
HCM Lane V/C Ratio	0.005	-	-	0.235	0.323	0.059	-	-
HCM Control Delay (s)	8.2	0	-	17.4	20.9	7.7	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.9	1.4	0.2	-	-

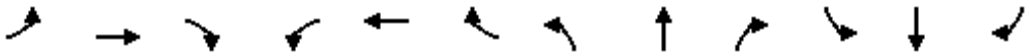
Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	0	0	0	0	0	45	95	5	5	190	280
Future Vol, veh/h	45	0	0	0	0	0	45	95	5	5	190	280
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	52	0	0	0	0	0	52	109	6	6	218	322

Major/Minor	Minor2					Major1			Major2		
Conflicting Flow All	607	610	379			540	0	0	115	0	0
Stage 1	391	391	-			-	-	-	-	-	-
Stage 2	216	219	-			-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2			4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.4	5.5	-			-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-			-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3			2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	463	412	672			1039	-	-	1487	-	-
Stage 1	688	611	-			-	-	-	-	-	-
Stage 2	825	726	-			-	-	-	-	-	-
Platoon blocked, %							-	-		-	-
Mov Cap-1 Maneuver	436	0	672			1039	-	-	1487	-	-
Mov Cap-2 Maneuver	436	0	-			-	-	-	-	-	-
Stage 1	652	0	-			-	-	-	-	-	-
Stage 2	820	0	-			-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.4	2.7	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	SBL	SBT	SBR
Capacity (veh/h)	1039	-	-	436	-	1487	-	-
HCM Lane V/C Ratio	0.05	-	-	0.119	-	0.004	-	-
HCM Control Delay (s)	8.6	0	-	14.4	0	7.4	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.4	-	0	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	5	0	85	0	60	15	100	90	0
Future Volume (veh/h)	0	0	0	5	0	85	0	60	15	100	90	0
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	0	1900	1900	1900	1796	0
Adj Flow Rate, veh/h				6	0	104	0	73	18	122	110	0
Peak Hour Factor				0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %				0	0	0	0	0	0	0	7	0
Cap, veh/h				406	0	354	0	760	644	503	367	0
Arrive On Green				0.22	0.00	0.22	0.00	0.40	0.40	0.40	0.40	0.00
Sat Flow, veh/h				1810	0	1577	0	1900	1610	613	917	0
Grp Volume(v), veh/h				6	0	104	0	73	18	232	0	0
Grp Sat Flow(s),veh/h/ln				1810	0	1577	0	1900	1610	1531	0	0
Q Serve(g_s), s				0.1	0.0	1.2	0.0	0.5	0.1	0.2	0.0	0.0
Cycle Q Clear(g_c), s				0.1	0.0	1.2	0.0	0.5	0.1	1.9	0.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.53		0.00
Lane Grp Cap(c), veh/h				406	0	354	0	760	644	870	0	0
V/C Ratio(X)				0.01	0.00	0.29	0.00	0.10	0.03	0.27	0.00	0.00
Avail Cap(c_a), veh/h				3057	0	2664	0	3210	2721	2757	0	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh				6.4	0.0	6.9	0.0	4.0	3.9	4.4	0.0	0.0
Incr Delay (d2), s/veh				0.0	0.0	0.6	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.3	0.0	0.1	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				6.4	0.0	7.5	0.0	4.0	3.9	4.5	0.0	0.0
LnGrp LOS				A	A	A	A	A	A	A	A	A
Approach Vol, veh/h					110			91			232	
Approach Delay, s/veh					7.4			4.0			4.5	
Approach LOS					A			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	12.5		12.5		8.8			
Change Period (Y+Rc), s	4.0		4.0		4.0			
Max Green Setting (Gmax), s	36.0		36.0		36.0			
Max Q Clear Time (g_c+I1), s	2.5		3.9		3.2			
Green Ext Time (p_c), s	0.3		1.1		1.0			

Intersection Summary		
HCM 6th Ctrl Delay	5.1	
HCM 6th LOS	A	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	225	10	70	50	0	0	0	0	85	600	75
Future Volume (veh/h)	0	225	10	70	50	0	0	0	0	85	600	75
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1885	1900	1767	0				1900	1885	1900
Adj Flow Rate, veh/h	0	239	11	74	53	0				90	638	80
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	1	0	9	0				0	1	0
Cap, veh/h	0	540	25	324	530	0				360	2736	916
Arrive On Green	0.00	0.30	0.30	0.30	0.30	0.00				0.57	0.59	0.59
Sat Flow, veh/h	0	1800	83	1145	1767	0				614	4672	1564
Grp Volume(v), veh/h	0	0	250	74	53	0				272	456	80
Grp Sat Flow(s),veh/h/ln	0	0	1882	1145	1767	0				1854	1716	1564
Q Serve(g_s), s	0.0	0.0	7.5	3.9	1.5	0.0				5.0	4.4	1.6
Cycle Q Clear(g_c), s	0.0	0.0	7.5	11.4	1.5	0.0				5.0	4.4	1.6
Prop In Lane	0.00		0.04	1.00		0.00				0.33		1.00
Lane Grp Cap(c), veh/h	0	0	565	324	530	0				1086	2010	916
V/C Ratio(X)	0.00	0.00	0.44	0.23	0.10	0.00				0.25	0.23	0.09
Avail Cap(c_a), veh/h	0	0	565	324	530	0				1086	2010	916
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.79	0.96	0.96	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	19.8	24.4	17.7	0.0				7.1	6.9	6.3
Incr Delay (d2), s/veh	0.0	0.0	2.0	1.6	0.4	0.0				0.6	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	3.4	1.2	0.6	0.0				1.8	1.4	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	21.8	26.0	18.0	0.0				7.7	7.2	6.5
LnGrp LOS	A	A	C	C	B	A				A	A	A
Approach Vol, veh/h		250			127						808	
Approach Delay, s/veh		21.8			22.7						7.3	
Approach LOS		C			C						A	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	45.0	25.0	25.0
Change Period (Y+Rc), s	* 4.8	4.0	4.0
Max Green Setting (Gmax), s	* 40	21.0	21.0
Max Q Clear Time (g_c+I1), s	7.0	9.5	13.4
Green Ext Time (p_c), s	1.2	0.3	0.1

Intersection Summary	
HCM 6th Ctrl Delay	12.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	180	130	0	0	90	60	30	715	95	0	0	0
Future Volume (veh/h)	180	130	0	0	90	60	30	715	95	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	0.98		1.00	1.00		0.96	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1885	1900	1900	1885	1900			
Adj Flow Rate, veh/h	191	138	0	0	96	64	32	761	101			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	0	0	0	0	1	0	0	1	0			
Cap, veh/h	363	543	0	0	296	197	119	3012	940			
Arrive On Green	0.09	0.09	0.00	0.00	0.29	0.29	0.59	0.59	0.59			
Sat Flow, veh/h	1225	1900	0	0	1037	691	202	5105	1592			
Grp Volume(v), veh/h	191	138	0	0	0	160	298	495	101			
Grp Sat Flow(s),veh/h/ln	1225	1900	0	0	0	1728	1875	1716	1592			
Q Serve(g_s), s	10.7	4.7	0.0	0.0	0.0	5.1	5.4	4.8	1.9			
Cycle Q Clear(g_c), s	15.8	4.7	0.0	0.0	0.0	5.1	5.4	4.8	1.9			
Prop In Lane	1.00		0.00	0.00		0.40	0.11		1.00			
Lane Grp Cap(c), veh/h	363	543	0	0	0	494	1106	2024	940			
V/C Ratio(X)	0.53	0.25	0.00	0.00	0.00	0.32	0.27	0.24	0.11			
Avail Cap(c_a), veh/h	363	543	0	0	0	494	1106	2024	940			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.89	0.89	0.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	32.3	24.8	0.0	0.0	0.0	19.7	7.0	6.9	6.3			
Incr Delay (d2), s/veh	4.8	1.0	0.0	0.0	0.0	1.7	0.6	0.3	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	8.9	2.3	0.0	0.0	0.0	2.2	2.0	1.5	0.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.1	25.8	0.0	0.0	0.0	21.4	7.6	7.2	6.5			
LnGrp LOS	D	C	A	A	A	C	A	A	A			
Approach Vol, veh/h		329			160			894				
Approach Delay, s/veh		32.3			21.4			7.2				
Approach LOS		C			C			A				

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	46.0	24.0	24.0
Change Period (Y+Rc), s	* 4.7	4.0	4.0
Max Green Setting (Gmax), s	* 41	20.0	20.0
Max Q Clear Time (g_c+I1), s	7.4	17.8	7.1
Green Ext Time (p_c), s	1.0	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	14.8
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection ID and Name	use dropdown NB PhasingType	use dropdown SB PhasingType	use dropdown EB PhasingType	use dropdown WB PhasingType	Cycle Length	Lost Time	use dropdown Use Overlap Calculator	use dropdov NBR Overla	use dropdow SBR Overla	use dropdow EBR Overla	use dropdov WBR Overla	BEGIN CALCULATIONS	1	3 EBL	4 EBT	5 EBR	6 WBL	7 WBT	8 WBR	9 NBL	10 NBT	11 NBR	12 SBL	13 SBT	14 SBR		Critical Flow Calculator WBL/EBT	EBL/WBT	NBL/SBT	SBL/NBT	V/S E/W	V/S N/S	Overlap Critical Flow Calculator	NBR OV	NB OV V/S	SBR OV	SB OV V/S	EBR OV	EB OV V/S	WBR OV	WB OV V/S	V/S Overlap		Intersection V/C	HCM 6th Ctrl Delay	HCM 6th LOS	Synchro ID
6: SE Water Avenue & SE Clay Street	Permitted	Permitted		Permitted	80	8	No						Adj Flow Rate, veh/h	0	0	0	6	0	104	0	73	18	122	110	0	Protected	0.00	0.07	0.12	0.24			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h	0	0	0	1810	0	1577	0	1900	1610	613	917	0	Permitted or Split	0.00	0.07	0.20	0.04			Right Turn Approach Phasing	Permitted	0.00	Permitted	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.04	0.01	0.20	0.12	0.00	selected phasing	0.00	0.07	0.20	0.04	0.07	0.20	Overlap Approach Phasing	0.00	0.07	0.00	0.07	Permitted	0.12	Permitted	0.12	N/A		**0.29**	**5**	**A**	6
7: SE Martin Luther King Jr. Boulevard & SE Stark Street		Protected	Protected	Protected	70	8	No	No	No	No	No		Adj Flow Rate, veh/h	0	239	11	74	53	0	0	0	0	90	638	80	Protected	0.20	0.03	0.14	0.15			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h	0	1800	83	1145	1767	0	0	0	0	614	4672	1564	Permitted or Split	0.13	0.06	0.15	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	Protected	0.06	Protected	0.06	No OV					
													V/S	0.00	0.13	0.13	0.06	0.03	0.00	0.00	0.00	0.00	0.15	0.14	0.05	selected phasing	0.20	0.03	0.15	0.15	0.20	0.15	Overlap Approach Phasing	Protected	0.13	Protected	0.13	0.00	0.14	0.00	0.14	N/A		**0.39**	**12**	**B**	7
8: SE Grand Avenue & SE Stark Street/ SE S	Protected		Protected	Protected	70	8	No						Adj Flow Rate, veh/h	191	138	0	0	96	64	32	761	101	0	0	0	Protected	0.07	0.25	0.16	0.15			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h	1225	1900	0	0	1037	691	202	5105	1592	0	0	0	Permitted or Split	0.16	0.09	0.00	0.16			Right Turn Approach Phasing	Protected	0.16	Protected	0.16	Protected	0.16	Protected	0.16	No OV					
													V/S	0.16	0.07	0.00	0.00	0.09	0.09	0.16	0.15	0.06	0.00	0.00	0.00	selected phasing	0.07	0.25	0.16	0.16	0.25	0.16	Overlap Approach Phasing	Protected	0.09	Protected	0.09	Protected	0.15	Protected	0.15	N/A		**0.46**	**15**	**B**	8
													Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
													Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
													Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
													Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
													Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
													Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
							No						Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
							No						Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
							No						Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
							No						Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
							No						Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
							No						Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
							No						Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
							No						Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
							No						Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
							No						Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	
							No						Adj Flow Rate, veh/h													Protected	0.00	0.00	0.00	0.00			Right Turn Overlap	No	0.00	No	0.00	No	0.00	No	0.00		0.00				
													Sat Flow, veh/h													Permitted or Split	0.00	0.00	0.00	0.00			Right Turn Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	No OV					
													V/S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	selected phasing	0.00	0.00	0.00	0.00	0.00	0.00	Overlap Approach Phasing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A		**0.00**	**0**	**A**	

List of Phasing Types
Protected
Permitted
Split

List of Overlap Types
Yes
No

Sheet Description:
This sheet reads in the adjusted flow rate and the saturation flow rate from Synchro and divides them to calculated the V/S for each movement.
The critical flow calculator calculates the critical v/s for each conflicting phase pair.
for protected phases, this v/s is the left turn v/s plus the max of the opposing movement v/s
for the permitted and split phases, this v/s is the max of the three movement v/s
The next step selects the proper v/s based on phasing provided
V/S by east-west and north-south is selected by taking the max of the phase pairs or by adding them (if split phasing)
If overlap calculator was selected in input section and overlap phases were indicated, then overlap v/s for intersection is calculated. See details below
If the right turn v/s is greater than the through v/s for the right turn overlap approach, then the right turn is assumed the critical movement and intersection v/c calc will use the v/s overlap instead of approach v/s.
The final step in v/c calculation uses the approach v/s ratios, cycle length, and lost time to calculate overall intersection v/c
Delay and LOS are read directly from the HCM 6 report

Overlap Calculator Details
Overlap calculator reads in whether an overlap phase is in use and what type of phasing is associated with the right turn approach and the overlapped approach
V/S is read in for right turn movement, and remaining approaches from previous calculations
-right turn overlap v/s is just the v/s for the right turn movement (i.e. NBR)
-right turn approach v/s is the critical v/s associated with the right turn approaches (i.e. NB/SB) and is calculated differently for protected vs split
-overlap approach v/s is the critical v/s associated with the overlap approaches (i.e. EB/WB) and is calculated differently for protected vs split phasing
The v/s overlap column sums the 3 v/s values for the overlap phasing to get the total v/s overlap to be used in the v/c calculation
If there are overlaps for both approaches (i.e. N/S or E/W), the v/s overlap will use the greater of the two for most conservative approach
Use Overlap Calculator' must be enabled and 'Use OV V/S' must be showing in V/S Overlap column in order for overlap v/s to be used in final v/c calculation

SECTION 15: BUILD QUEUING REPORTS

Intersection: 1: SE Water Avenue & SE Morrison Bridge Off Ramp

Movement	EB	NB	SB
Directions Served	LR	T	T
Maximum Queue (ft)	61	35	59
Average Queue (ft)	26	1	6
95th Queue (ft)	50	12	31
Link Distance (ft)	547	80	1152
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: SE Water Avenue & I-5 Off Ramp/SE Yamhill Street

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	TR	LT
Maximum Queue (ft)	106	137	35	84	61
Average Queue (ft)	55	53	18	38	41
95th Queue (ft)	84	98	46	63	59
Link Distance (ft)	621		232	446	80
Upstream Blk Time (%)					0
Queuing Penalty (veh)					0
Storage Bay Dist (ft)		300			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: SE Water Avenue & SE Salmon Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	35	63	20	35
Average Queue (ft)	8	34	1	9
95th Queue (ft)	30	50	7	32
Link Distance (ft)	306	219	208	446
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: SE Water Avenue & SE Main Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	35	35	35	56
Average Queue (ft)	14	27	2	9
95th Queue (ft)	40	48	17	35
Link Distance (ft)	331	220	440	208
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: SE Water Avenue & Hawthorne Bridge Off Ramp/SE Hawthorne Boulevard

Movement	EB	NB
Directions Served	LT	LTR
Maximum Queue (ft)	79	115
Average Queue (ft)	34	6
95th Queue (ft)	62	43
Link Distance (ft)	577	240
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: SE Water Avenue & SE Clay Street

Movement	WB	WB	NB	NB	SB
Directions Served	L	TR	T	R	LT
Maximum Queue (ft)	55	104	48	31	82
Average Queue (ft)	14	23	7	3	33
95th Queue (ft)	39	61	28	17	75
Link Distance (ft)		199	369		240
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	200			175	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: SE Martin Luther King Jr. Boulevard & SE Stark Street

Movement	EB	WB	WB	SB	SB	SB	SB
Directions Served	TR	L	T	LT	T	T	R
Maximum Queue (ft)	713	99	226	308	280	264	82
Average Queue (ft)	640	70	64	276	223	93	27
95th Queue (ft)	849	118	177	309	319	226	63
Link Distance (ft)	698		212	260	260	260	260
Upstream Blk Time (%)	50		1	30	6	0	
Queuing Penalty (veh)	135		2	0	0	0	
Storage Bay Dist (ft)		75					
Storage Blk Time (%)		20	3				
Queuing Penalty (veh)		7	3				

Intersection: 8: SE Grand Avenue & SE Stark Street/ SE Stark Street

Movement	EB	EB	WB	NB	NB	NB	NB
Directions Served	L	T	TR	LT	T	T	R
Maximum Queue (ft)	75	228	350	123	188	107	137
Average Queue (ft)	71	218	140	66	73	47	42
95th Queue (ft)	77	228	256	112	127	99	93
Link Distance (ft)		212	460	3150	3150	3150	3150
Upstream Blk Time (%)		60					
Queuing Penalty (veh)		174					
Storage Bay Dist (ft)	50						
Storage Blk Time (%)	68	60					
Queuing Penalty (veh)	119	68					

Zone Summary

Zone wide Queuing Penalty: 507

Intersection: 1: SE Water Avenue & SE Morrison Bridge Off Ramp

Movement	EB
Directions Served	LR
Maximum Queue (ft)	33
Average Queue (ft)	17
95th Queue (ft)	43
Link Distance (ft)	547
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: SE Water Avenue & I-5 Off Ramp/SE Yamhill Street

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	TR	LT
Maximum Queue (ft)	31	50	35	100	88
Average Queue (ft)	20	27	19	37	39
95th Queue (ft)	41	38	47	67	60
Link Distance (ft)	621		232	446	80
Upstream Blk Time (%)					0
Queuing Penalty (veh)					0
Storage Bay Dist (ft)		300			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: SE Water Avenue & SE Salmon Street

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	35	76	63
Average Queue (ft)	6	43	8
95th Queue (ft)	26	65	38
Link Distance (ft)	306	219	446
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: SE Water Avenue & SE Main Street

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	89	89	61
Average Queue (ft)	46	35	10
95th Queue (ft)	76	69	38
Link Distance (ft)	331	220	208
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: SE Water Avenue & Hawthorne Bridge Off Ramp/SE Hawthorne Boulevard

Movement	EB	NB	SB
Directions Served	LT	LTR	LTR
Maximum Queue (ft)	60	144	55
Average Queue (ft)	23	35	6
95th Queue (ft)	50	101	26
Link Distance (ft)	577	240	440
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: SE Water Avenue & SE Clay Street

Movement	WB	NB	SB
Directions Served	TR	T	LT
Maximum Queue (ft)	119	22	118
Average Queue (ft)	37	2	28
95th Queue (ft)	95	11	76
Link Distance (ft)	199	369	240
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: SE Martin Luther King Jr. Boulevard & SE Stark Street

Movement	EB	WB	WB	SB	SB	SB	SB
Directions Served	TR	L	T	LT	T	T	R
Maximum Queue (ft)	313	96	121	235	182	59	76
Average Queue (ft)	76	27	7	137	74	8	28
95th Queue (ft)	173	70	46	231	169	33	59
Link Distance (ft)	698		212	260	260	260	260
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		75					
Storage Blk Time (%)		2					
Queuing Penalty (veh)		0					

Intersection: 8: SE Grand Avenue & SE Stark Street/ SE Stark Street

Movement	EB	EB	WB	NB	NB	NB	NB
Directions Served	L	T	TR	LT	T	T	R
Maximum Queue (ft)	75	233	131	123	140	81	35
Average Queue (ft)	69	136	49	52	48	22	6
95th Queue (ft)	85	250	114	92	94	62	26
Link Distance (ft)		212	460	3150	3150	3150	3150
Upstream Blk Time (%)		5					
Queuing Penalty (veh)		11					
Storage Bay Dist (ft)	50						
Storage Blk Time (%)	44	15					
Queuing Penalty (veh)	26	24					

Zone Summary

Zone wide Queuing Penalty: 62

Intersection: 1: SE Water Avenue & SE Morrison Bridge Off Ramp

Movement	EB	SB
Directions Served	LR	T
Maximum Queue (ft)	56	55
Average Queue (ft)	27	7
95th Queue (ft)	53	32
Link Distance (ft)	547	1152
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: SE Water Avenue & I-5 Off Ramp/SE Yamhill Street

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	TR	LT
Maximum Queue (ft)	110	101	35	76	92
Average Queue (ft)	66	52	12	36	55
95th Queue (ft)	99	86	38	60	86
Link Distance (ft)	621		232	446	80
Upstream Blk Time (%)					1
Queuing Penalty (veh)					2
Storage Bay Dist (ft)		300			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: SE Water Avenue & SE Salmon Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	35	63	60	56
Average Queue (ft)	10	30	4	10
95th Queue (ft)	36	57	27	37
Link Distance (ft)	306	219	208	446
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: SE Water Avenue & SE Main Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	35	60	35	90
Average Queue (ft)	12	33	8	8
95th Queue (ft)	38	49	32	42
Link Distance (ft)	331	220	440	208
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: SE Water Avenue & Hawthorne Bridge Off Ramp/SE Hawthorne Boulevard

Movement	EB	NB	SB
Directions Served	LT	LTR	LTR
Maximum Queue (ft)	87	102	32
Average Queue (ft)	33	16	2
95th Queue (ft)	61	60	14
Link Distance (ft)	577	240	440
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)	0		
Queuing Penalty (veh)	0		

Intersection: 6: SE Water Avenue & SE Clay Street

Movement	WB	WB	NB	NB	SB
Directions Served	L	TR	T	R	LT
Maximum Queue (ft)	29	147	48	32	127
Average Queue (ft)	5	41	12	10	39
95th Queue (ft)	22	99	36	32	87
Link Distance (ft)		199	369		240
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	200			175	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: SE Martin Luther King Jr. Boulevard & SE Stark Street

Movement	EB	WB	WB	SB	SB	SB	SB
Directions Served	TR	L	T	LT	T	T	R
Maximum Queue (ft)	716	100	230	290	275	222	56
Average Queue (ft)	574	96	169	194	103	21	20
95th Queue (ft)	852	104	291	296	226	90	51
Link Distance (ft)	698		212	260	260	260	260
Upstream Blk Time (%)	34		30	5	0		
Queuing Penalty (veh)	123		46	0	0		
Storage Bay Dist (ft)		75					
Storage Blk Time (%)		78	8				
Queuing Penalty (veh)		40	9				

Intersection: 8: SE Grand Avenue & SE Stark Street/ SE Stark Street

Movement	EB	EB	WB	NB	NB	NB	NB
Directions Served	L	T	TR	LT	T	T	R
Maximum Queue (ft)	74	227	480	252	207	171	161
Average Queue (ft)	62	195	370	93	80	56	43
95th Queue (ft)	92	255	601	174	142	120	102
Link Distance (ft)		212	460	3150	3150	3150	3150
Upstream Blk Time (%)		22	36				
Queuing Penalty (veh)		70	0				
Storage Bay Dist (ft)	50						
Storage Blk Time (%)	45	49					
Queuing Penalty (veh)	88	59					

Zone Summary

Zone wide Queuing Penalty: 436

Intersection: 1: SE Water Avenue & SE Morrison Bridge Off Ramp

Movement	EB
Directions Served	LR
Maximum Queue (ft)	33
Average Queue (ft)	27
95th Queue (ft)	46
Link Distance (ft)	547
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: SE Water Avenue & I-5 Off Ramp/SE Yamhill Street

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	TR	LT
Maximum Queue (ft)	58	101	84	79	62
Average Queue (ft)	33	31	23	39	41
95th Queue (ft)	54	56	55	63	60
Link Distance (ft)	621		232	446	80
Upstream Blk Time (%)					0
Queuing Penalty (veh)					0
Storage Bay Dist (ft)		300			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: SE Water Avenue & SE Salmon Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	60	88	63	35
Average Queue (ft)	15	42	2	7
95th Queue (ft)	45	68	21	28
Link Distance (ft)	306	219	208	446
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: SE Water Avenue & SE Main Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	62	117	35	56
Average Queue (ft)	40	39	3	7
95th Queue (ft)	59	77	19	31
Link Distance (ft)	331	220	440	208
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: SE Water Avenue & Hawthorne Bridge Off Ramp/SE Hawthorne Boulevard

Movement	EB	NB	SB
Directions Served	LT	LTR	LTR
Maximum Queue (ft)	55	56	23
Average Queue (ft)	22	10	1
95th Queue (ft)	50	38	8
Link Distance (ft)	577	240	440
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: SE Water Avenue & SE Clay Street

Movement	WB	WB	NB	NB	SB
Directions Served	L	TR	T	R	LT
Maximum Queue (ft)	29	115	27	27	61
Average Queue (ft)	2	65	2	1	24
95th Queue (ft)	14	118	12	9	60
Link Distance (ft)		199	369		240
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	200			175	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: SE Martin Luther King Jr. Boulevard & SE Stark Street

Movement	EB	WB	WB	SB	SB	SB	SB
Directions Served	TR	L	T	LT	T	T	R
Maximum Queue (ft)	368	100	169	280	247	34	60
Average Queue (ft)	306	64	32	152	80	6	19
95th Queue (ft)	481	113	89	281	204	26	50
Link Distance (ft)	698		212	260	260	260	260
Upstream Blk Time (%)				2	0		
Queuing Penalty (veh)				0	0		
Storage Bay Dist (ft)		75					
Storage Blk Time (%)		29	3				
Queuing Penalty (veh)		15	2				

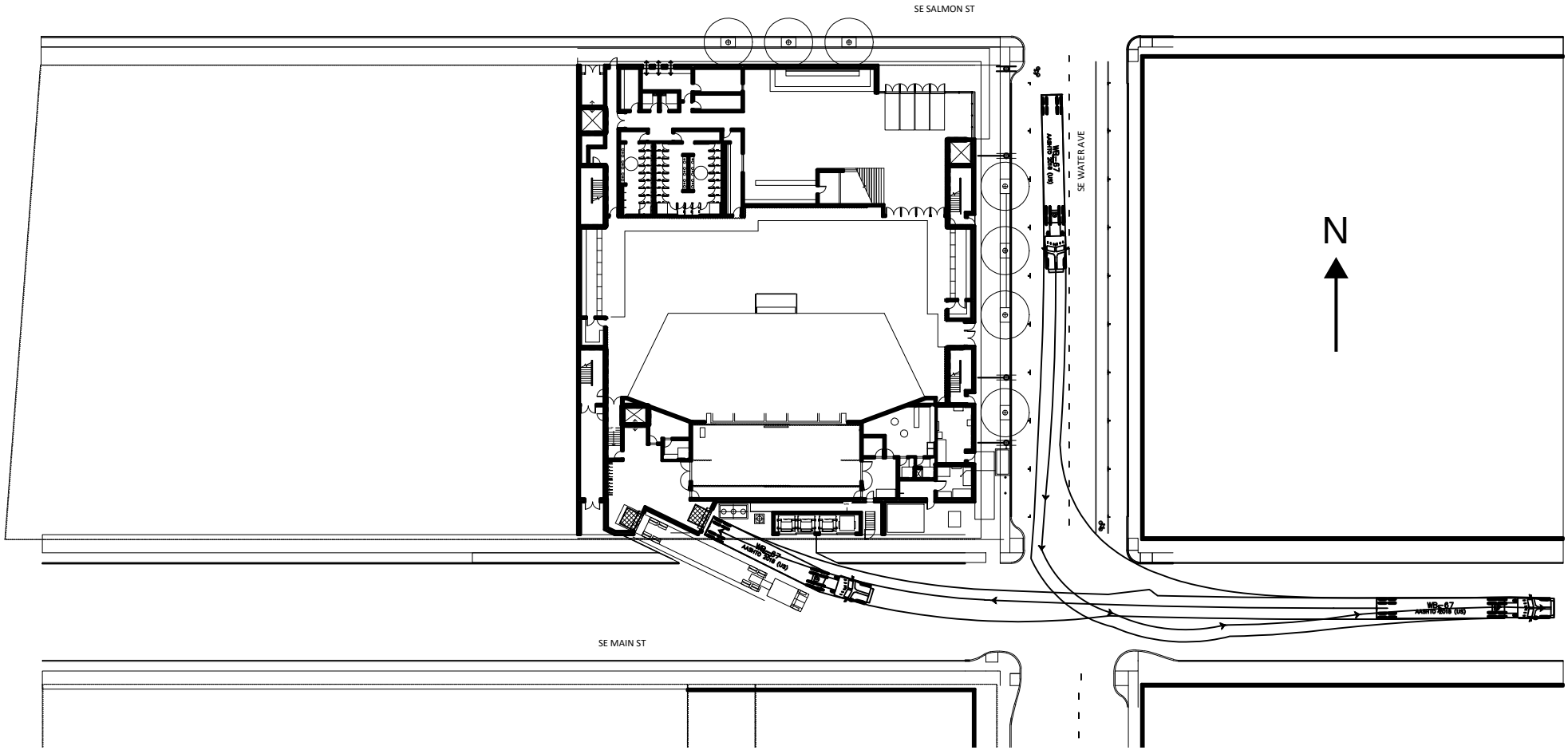
Intersection: 8: SE Grand Avenue & SE Stark Street/ SE Stark Street

Movement	EB	EB	WB	NB	NB	NB	NB
Directions Served	L	T	TR	LT	T	T	R
Maximum Queue (ft)	75	230	298	124	162	130	76
Average Queue (ft)	70	203	115	57	62	35	21
95th Queue (ft)	84	252	229	98	125	88	58
Link Distance (ft)		212	460	3150	3150	3150	3150
Upstream Blk Time (%)		24					
Queuing Penalty (veh)		75					
Storage Bay Dist (ft)	50						
Storage Blk Time (%)	64	46					
Queuing Penalty (veh)	83	83					

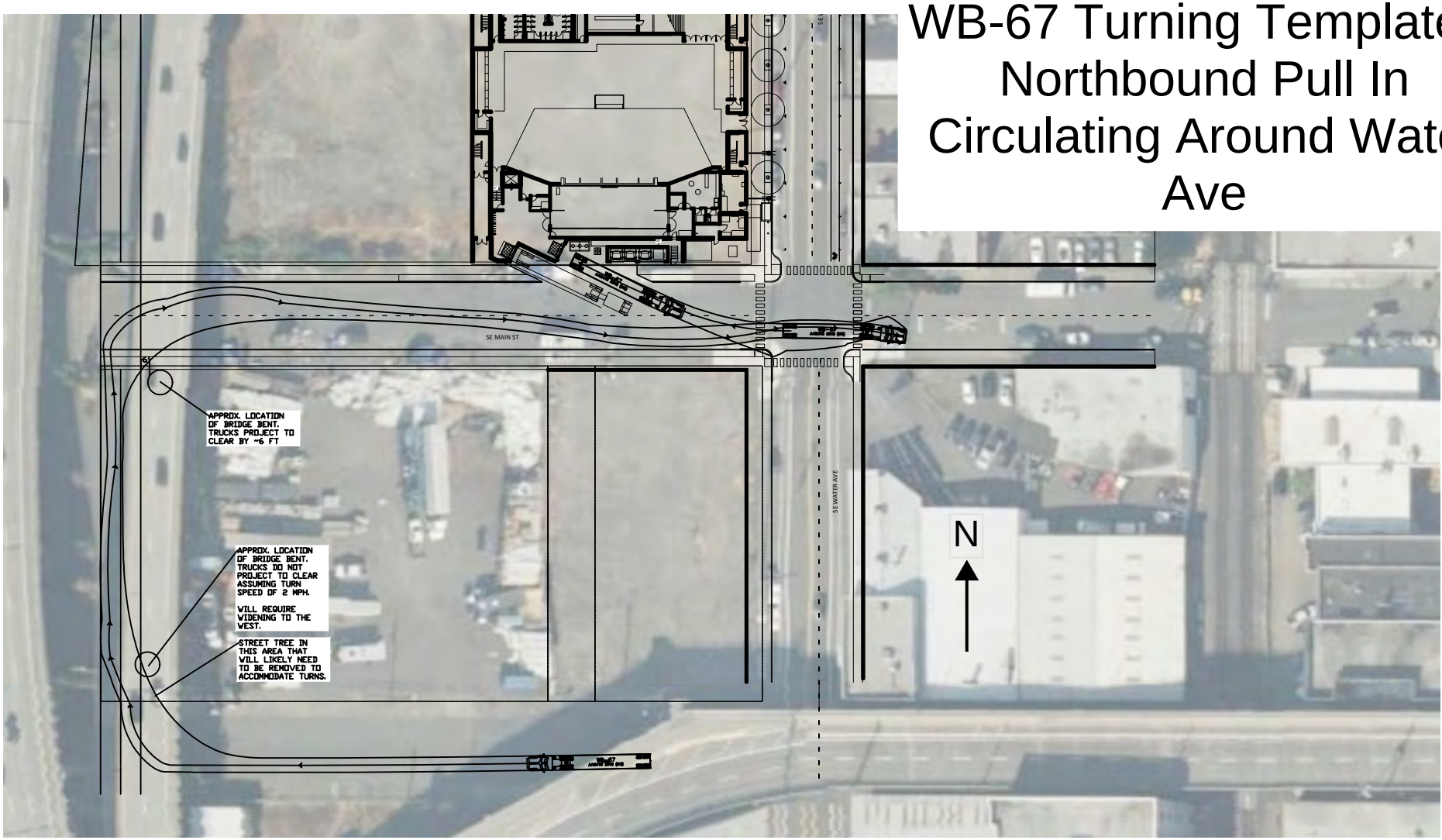
Zone Summary

Zone wide Queuing Penalty: 257

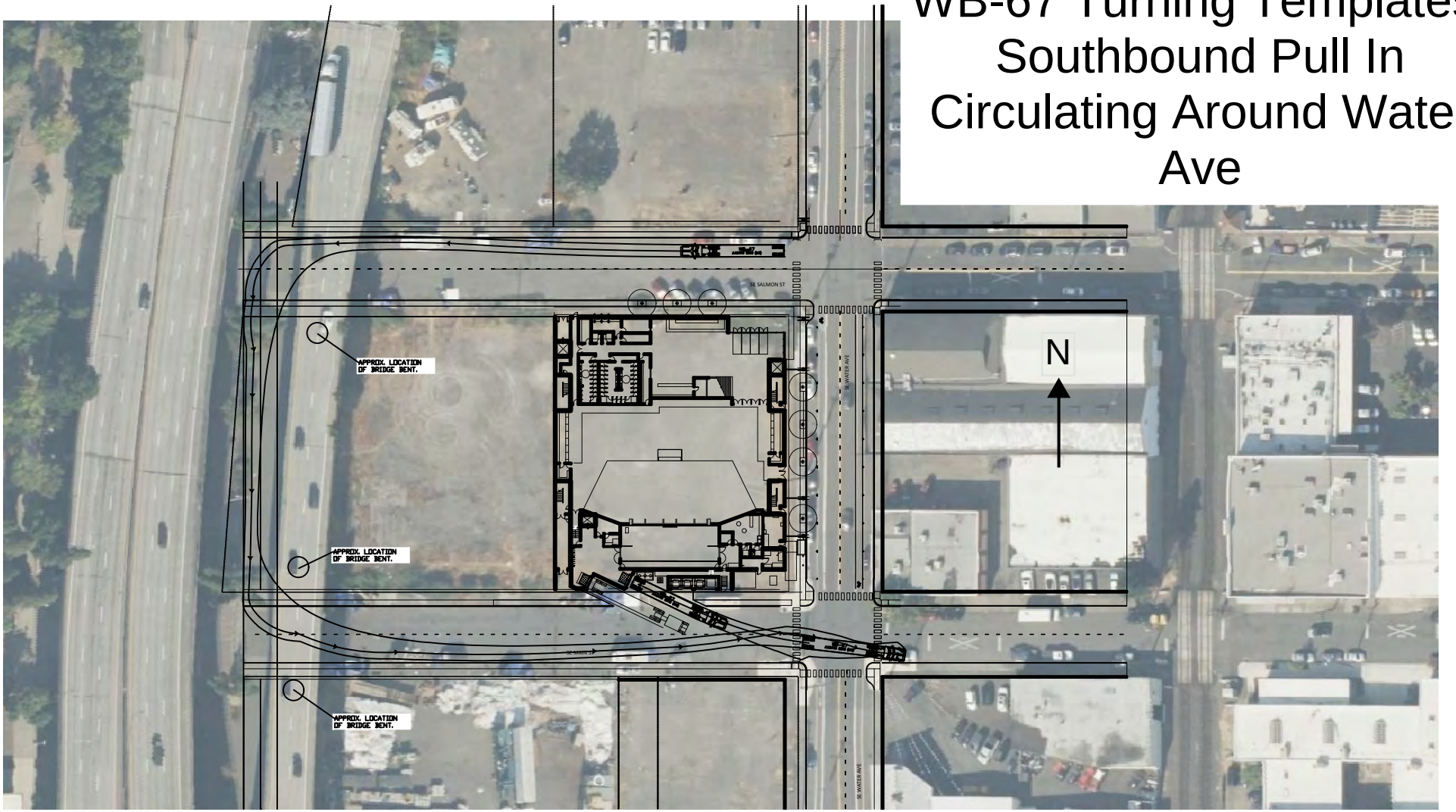
SECTION 16: AUTO TURN ANALYSIS


SE SALMON ST
SE WATER AVE
N
SE MAIN ST

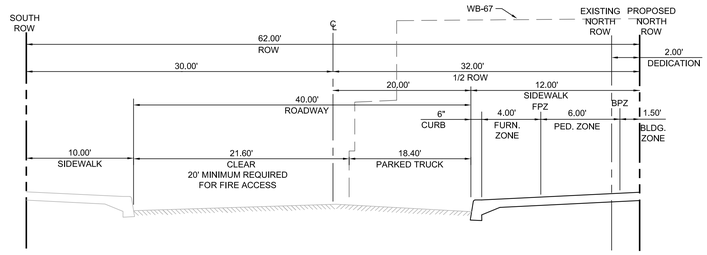
WB-67 Turning Templates: Northbound Pull In Circulating Around Water Ave



WB-67 Turning Templates: Southbound Pull In Circulating Around Water Ave

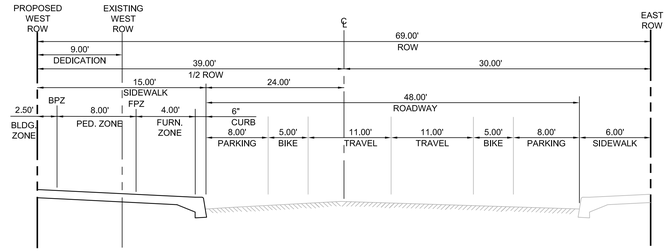


SECTION 17: CONCEPTUAL TEMPORARY TRAFFIC CONTROL PLANS



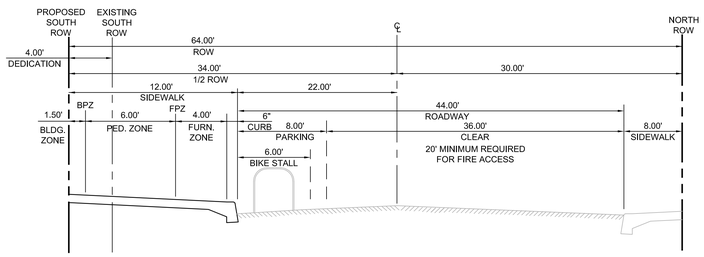
SE MAIN STREET TYPICAL SECTION

NTS



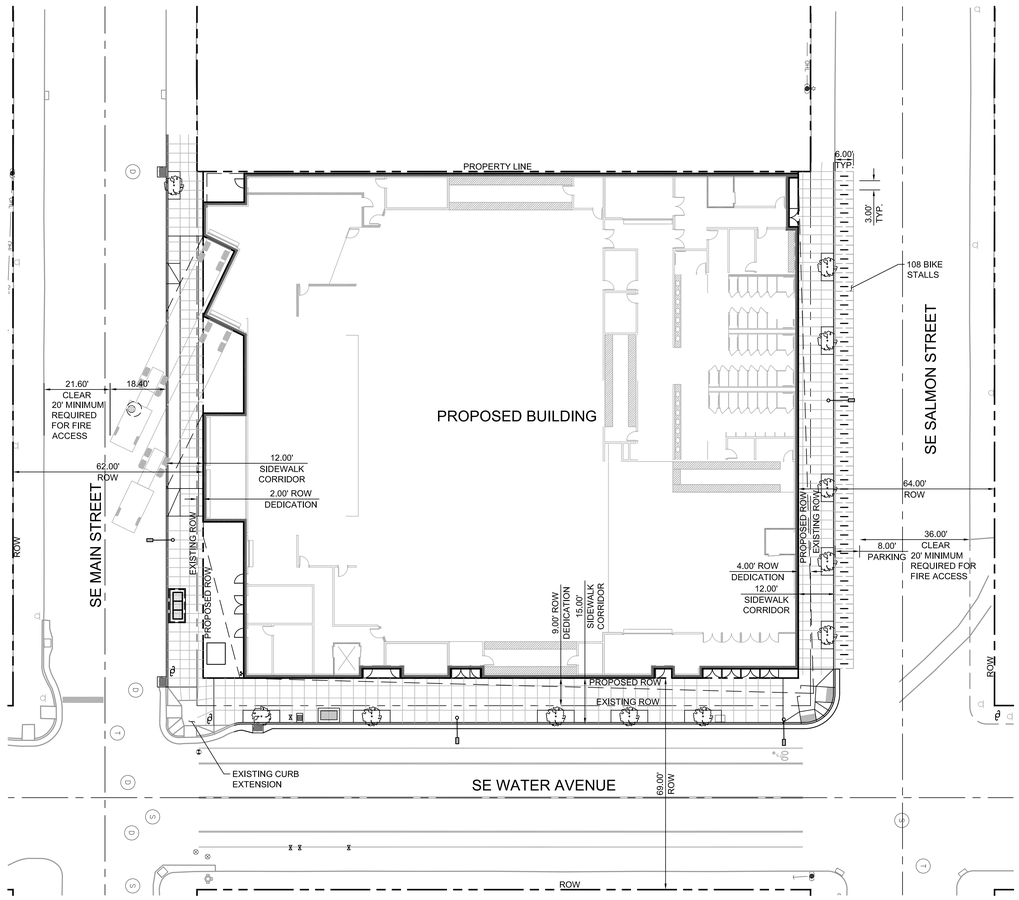
SE WATER AVENUE TYPICAL SECTION

NTS



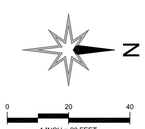
SE SALMON STREET TYPICAL SECTION

NTS



LAYOUT PLAN

SCALE: 1"=20'



MUSIC VENUE LN

25 SE Salmon Street
Portland, OR 97214

ARCHITECT
LEVER
4713 N. Albina Avenue,
4th Floor Portland, OR 97217
T. 503.928.6040
www.leverarchitecture.com

VEGA
CIVIL ENGINEERING LLC
503.662.1901 | WWW.VEGACIVIL.COM

STAMP

NOT FOR CONSTRUCTION

REVISIONS

PHASE
SCHEMATIC DESIGN

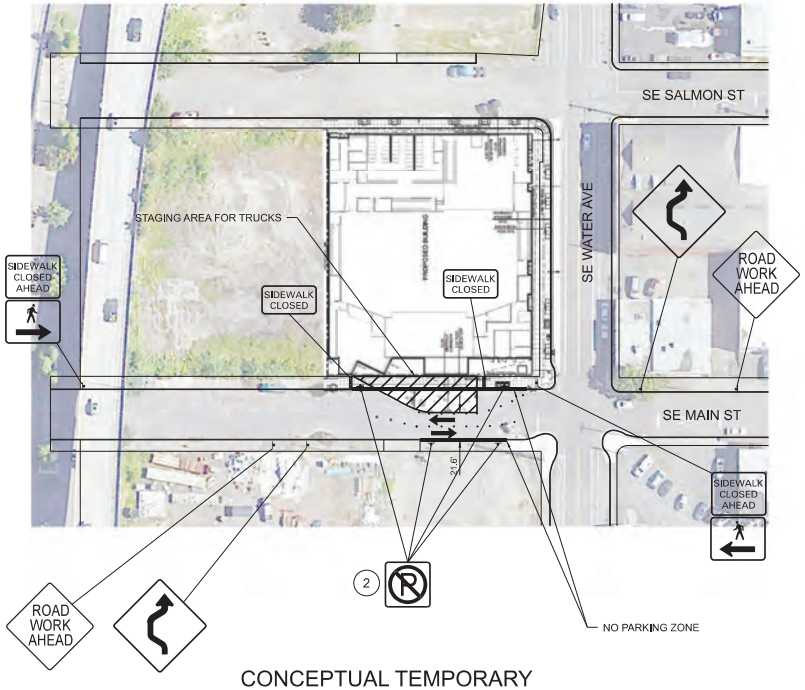
DATE
2023

PROJECT NUMBER
12345

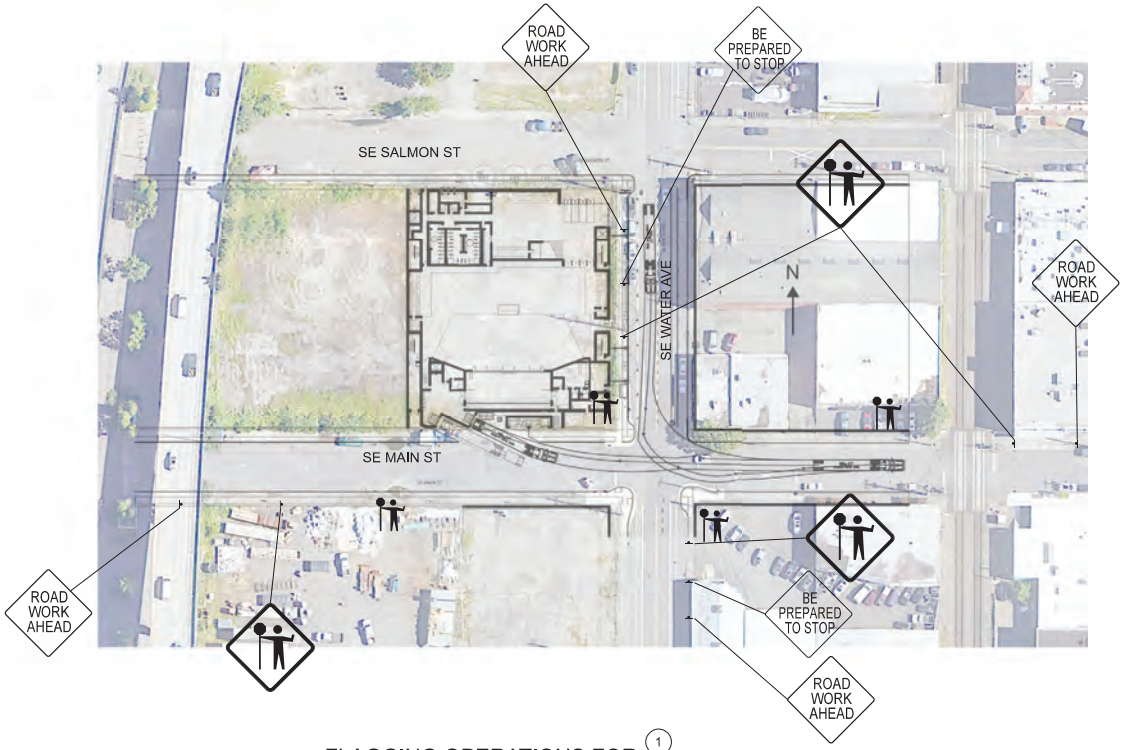
SCALE
As indicated

SHEET TITLE
LAYOUT PLAN

C100



CONCEPTUAL TEMPORARY
TRAFFIC CONTROL
SE WATER AVE AT SE MAIN ST



FLAGGING OPERATIONS FOR
TRUCK ARRIVALS (1)

NOTE:

(1) FLAGGING OPERATIONS TO BE USED DURING TRUCK ARRIVALS ONLY. TRUCKS WILL ARRIVE FROM 8 AM TILL NOON ON EVENT DAYS.

(2) DURATION OF THE PARKING CLOSURE TO BE COORDINATED WITH PBOT.

N

0 50 100
FEET

DKS
1050 SW 6th Avenue, Suite 600
Portland, Oregon 97204
www.dksassociates.com

NO.	DATE	DESCRIPTION	APPD.
		REVISION	

DESIGNED BY	X. Designer
DATE APPROVED	June 2023
CAD BY	K. Jackson
PBOT REVIEWER	X. Reviewer
CHECKED BY	X. Engineer
PBOT SUPV.	X. Eng-Supv

APPROVALS:

EVA HUNTSINGER, ENGINEERING MANAGER, 8447OPE

TODD LILES, INTERIM CITY ENGINEER, 18563PE

PBOT
PORTLAND BUREAU OF TRANSPORTATION
MINGUS MAPPS, COMMISSIONER
TODD LILES, P.E., INTERIM CITY ENGINEER

CITY OF PORTLAND, OREGON 1851

Central Eastside Venue

Conceptual Temporary Traffic Control SE Water Ave at SE Main St

1/4 SECTION	XXXX
PROJECT NO.	T00XXX (BES XXXXX)
SHEET NO.	2C-1

Plot Date: 3/27/2024 8:58:35 AM Filename: X:\Projects\2022\P22048-000 (Portland Central Eastside TIS)\Work Tasks\Traffic Control Plans\CAD\2C-1.dgn

SECTION 18: PROSPER PORTLAND LETTER

PROSPER PORTLAND

March 15, 2024

Millicent Williams, Director
Portland Bureau of Transportation
Sent via email

RE: SE Main Street with Truck Staging Partially On-Street during Events

Dear Director Williams,

I am writing with regards to property owned by Prosper Portland and under contract for future redevelopment within the Central Eastside Tax Increment Finance district.

Prosper Portland and Beam Development have an executed term sheet for the redevelopment of the Workshop Blocks (Blocks A – C) along SE Water Avenue in the Central Eastside. The agreement includes a clause for pre-development exclusivity period by which Prosper Portland agrees to refrain from negotiation for the sale, leasing or otherwise conveying an interest (other than short term interests, such as use permits, license agreements, temporary events, leases terminable at will or for convenience by Prosper Portland, etc.) in exchange for Beam Development and Colas Development Group meeting the exclusivity conditions.

Beam Development and Colas Development Group are fulfilling their obligations under this agreement by filing for a conditional use permit as part of the land use permitting process for Workshop Block B. Prosper Portland is in regular coordination with Beam Development and Colas Development Group in support of their predevelopment activities and critical path decisions in this effort. Prosper Portland has no objections to the request to remove visitor/ permit parking spots along the frontage of Block B and three (3) spots along the frontage of our adjacent property south across SE Main Street (also under the same term sheet), as part of their efforts to pursue and secure a land use permit for Workshop Block B.

Sincerely,

prosperportland.us

220 NW Second Ave.,
Suite 200, Portland, OR
97209-3943

503-823-3200 Main
503-823-3368 Fax
503-823-3366 TTY

Lisa Abuaf
Director of Development & Investment, Prosper Portland

Stormwater + Ecoroof O&M Memorandum

TO: LEVER Architecture

FROM: Shapiro Didway

CC: Beam Development, Colas Development Group, Mackenzie Inc.

DATE: June 24, 2024

RE: Central Eastside Music Venue(CEMV) – On-Site Stormwater Planting and Ecoroof Planting Operations and Maintenance Plan

Overview

The following Operations and Maintenance Plan is designed for the CEMV's Level 02 stormwater planter and ecoroof. Plant species selections for each planter type can be found in the project's Landscape Architectural Drawings.

Irrigation

- Initial Establishment Period (First 12-24 Months)
  - Frequency:
    - Provide regular watering, maintain moist soils to promote nutrient uptake, root health and temperature regulation.
  - Method:
    - Permanent irrigation system with weather-based controls.
    - Schedule: Water 2-3 times per week during dry periods. Program irrigation system to self-regulate and adjust frequency and duration of irrigation periods based on weather conditions. Program each hydrozone separately.
- Post-Establishment Frequency
  - Ecoroof:
    - Minimal irrigation, supplement irrigation to permanent irrigation only as required.
  - Stormwater Planter:
    - Minimal irrigation required to maintain moist soils.

1204 SE WATER AVE. STE. 21 PORTLAND, OR 97214
503.232.0520
SHAPIRODIDWAY.COM
@SHAPIRODIDWAY

Establishment

- Installation:
  - Install plants in spring or early fall. If planting is required outside of those periods to align with construction sequencing, ensure healthy soil conditions. Avoid planting in extreme weather.
- Soil Preparation:
  - Amend growing medium to enrich soil nutrients. Ensure proper drainage. Install soils in 6" lifts, compact to 85% density of the Standard Proctor maximum dry density.
- Planting:
  - Install plants at the specified container sizes. Do not install plants in a smaller container size or greater spacing than allowable in the City of Portland Tree and Landscaping Manual.
- Mulching:
  - Stormwater Planter:
    - City of Portland Bureau of Environmental Services approved mulch only.
  - Ecoroof:
    - Full sedum coverage.

Routine Maintenance

- Weeding:
  - Regularly remove weeds to reduce competition for resources and nutrients.
  - Inspect monthly during the growing season and after significant weather events.
- Fertilization:
  - Apply a slow-release, balanced fertilizer in early spring. Over-fertilization can leads to excessive growth and maintenance.
- Pest and Disease Control:
  - Monitor plants for signs of pests and diseases.
  - Implement integrated pest management practices using organic or least-toxic methods first.
- Inspecting and Cleaning:
  - Inspect drainage systems quarterly to ensure they are clear of debris.
  - Clean any surface debris that might impede proper drainage or damage plants.
- Pruning:
  - Prune shrubs minimally as required to maintain desired size. Do not over-prune, maintain a natural organic form.
  - Remove dead/damaged growth, cut old stems in late fall/early spring.
  - Rake or cut back dead foliage on grasses in late winter/early spring. Leave a minimum of 1/3 of the grass height in place.

Plant Replacement Protocols

- Inspection:
  - Conduct thorough inspection biannually (spring and fall).
  - Identify plants showing signs of decline, disease or death.
- Replacement:
  - Remove dead or severely diseased plants, including roots.
  - Prepare the growing medium with necessary amendments.
  - Replant with the same species.
  - Water new plants through establishment.

Reference Standards

For additional operations and maintenance best practices information, refer to the following organizations standards:

- American National Standards Institute (ANSI)
- International Society of Arboriculture
- American Society of Landscape Architects Guidelines
- National Association of Landscape Professionals

Sincerely,

Shapiro Didway, LLC

MACKENZIE.

CONDITIONAL USE AND ADJUSTMENT

To
City of Portland

For
Central Eastside Venue

Dated
December 19, 2023
(Revised March 22, 2024)
(Revised June 25, 2024)

Project Number
2220204.00

MACKENZIE
Since 1960

RiverEast Center | 1515 SE Water Avenue, Suite 100, Portland, OR 97214
PO Box 14310, Portland, OR 97293 | T 503.224.9560 | www.mackenzie.inc

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I. PROJECT SUMMARY

Applicant:	Jonathan Malsin Beam Development 1001 SE Water Avenue, Suite 400 Portland, OR 97214
Owner:	PDC DBA Prosper Portland 222 NW 5th Avenue Portland, OR 97209
Site Address:	Between Main Street and Salmon Street on SE Water Avenue Portland, OR 97214
Assessor Site Acreage:	0.80 AC (34,862 SF) (before dedications), 0.74 AC (32,040 SF) after dedications
Zoning:	General Industrial (IG1)
Comprehensive Plan:	Industrial Sanctuary
Plan District:	Central City Subdistrict: Central Eastside
Existing Structures:	N/A

Request:	- Conditional Use for Major Event Entertainment Use
	- Adjustments to standards:
	  - 33.266.310.C.2.c. (number of Standard A loading spaces located entirely on the site)
	  - 33.510.243.B.1. (ecoroof coverage)

Project Contact:	Suzannah Stanley Mackenzie 1515 SE Water Avenue, Suite 100 Portland, OR 97214

II. INTRODUCTION

Description of Request

The applicant is seeking Conditional Use approval for a proposed event venue on a vacant lot in a General Industrial 1 (IG1) zone. Two Adjustments are also requested to allow alternative approaches for loading area and ecoroof requirements; loading will be provided partially in the SE Main Street right-of-way and will be provided by extending into the right-of-way, and the structural design of the roof does not allow for 100% ecoroof coverage.

Site and Surrounding Land Uses

The subject site is 0.80 acres (34,862 SF) and is currently vacant. The lot abuts SE Salmon Street to the north, SE Water Avenue to the east, and SE Main Street to the south. To the west is another vacant lot. The area is just east of the Eastbank Esplanade and Interstate-5. The lot is zoned General Industrial (IG1) and is surrounded by other IG1 zoned lots.

Description of Proposed Development

The applicant is proposing a 98,500 SF, four-story event venue with a 31,600 SF footprint. The building will take up over 80% of the lot. The remaining area will be landscape or hardscape area for pedestrians. The building will have a 2,100 SF ecoroof. The building will have two main entrances, each near the northeast and northwest corners.

The project cannot provide short-term bicycle parking on the site due to high building coverage, so will pay into the short-term bike parking fund and work with PBOT so short-term bicycle parking can be provided in the ROW in front of the main entrance.

Aerial Image – Project Site

III. CONDITIONAL USE COMPLIANCE

33.140 Employment and Industrial Zones

33.140.100 Primary Uses

Table 140-1
Employment and Industrial Zone Primary Uses

Use Categories	EG1	EG2	EX	IG1	IG2	IH
Residential Categories						
Household Living	N	N	Y	CU [1]	CU [1]	CU [1]
Group Living	N	N	Y	CU [1]	CU [1]	CU [1]
Commercial Categories						
Retail Sales And Service	L/CU [2]	L/CU [2]	Y	L/CU [3]	L/CU [4]	L/CU [5]
Office	Y	Y	Y	L/CU [3]	L/CU [4]	L/CU [5]
Quick Vehicle Servicing	Y	Y	N	Y	Y	Y
Vehicle Repair	Y	Y	Y	Y	Y	Y
Commercial Parking	CU [13]	CU [13]	CU [13]	CU [13]	CU [13]	CU [13]
Self-Service Storage	L [7]	L [7]	L [6]	Y	Y	Y
Commercial Outdoor Recreation	Y	Y	Y	CU	CU	CU
Major Event Entertainment	CU	CU	CU	CU	CU	CU
Industrial Categories						
Manufacturing And Production	Y	Y	Y	Y	Y	Y
Warehouse And Freight Movement	Y	Y	Y	Y	Y	Y
Wholesale Sales	Y	Y	Y	Y	Y	Y
Industrial Service	Y	Y	Y	Y	Y	Y
Bulk Fossil Fuel Terminal	L [15]	L [15]	N	L [15]	L [15]	L [15]
Railroad Yards	N	N	N	Y	Y	Y
Waste-Related	N	N	N	L/CU [7]	L/CU [7]	L/CU [7]

Y = Yes, Allowed
L = Allowed, But Special Limitations
CU = Conditional Use Review Required
N = No, Prohibited

Notes:

- The use categories are described in Chapter 33.920.
- Regulations that correspond to the bracketed numbers [ ] are stated in 33.140.100.B.
- Specific uses and developments may also be subject to regulations in the 200s series of chapters.

Response: The proposed use – an event venue – is considered Major Event Entertainment. Conditional Use review is required for this use in the IG1 zone; this application requests that review.

33.815 Conditional Uses

33.815.040 Review Procedures

The procedure for reviewing conditional uses depends on how the proposal affects the use of, or the development on, the site. Subsection A, below, outlines the procedures for proposals that affect the use of the site while Subsection B outlines the procedures for proposals that affect the development or reduce the conditional use site boundary. Proposals may be subject to Subsection A or B or both.

The review procedures of this section apply unless specifically stated otherwise in this Title.

Proposals may also be subject to the provisions of 33.700.040, Reconsideration of Land Use Approvals.

A. Proposals that affect the use of the site.

1. A new conditional use. A request for a new conditional use is processed through a Type III procedure.
Response: This application is for a new Conditional Use, a Type III review.

2. Changing to another use:…
3. Adding another use…
4. Changes to an existing conditional use…
Response: This application is for a new Conditional Use. These standards do not apply.

5. Conditional uses within institutional campuses in the IR zone…
6. Conditional uses in landmarks…
Response: This proposal does not include institutional campuses in the IR zone or landmarks. These standards do not apply.

B. Proposals that alter the development of an existing conditional use. Alterations to the development on a site with an existing conditional use and reducing the boundary of a conditional use site may be allowed, require an adjustment, modification, or require a conditional use review, as follows:…
Response: This proposal is for a new Conditional Use. This provision does not apply.

33.815.215 Major Event Entertainment

These approval criteria ensure that the potentially large size and impacts of these uses are not harmful to surrounding areas and that transportation services are or will be sufficient to serve the use. The approval criteria are:

A. Public services.

1. The proposed use is in conformance with the street designations shown in the Transportation Element of the Comprehensive Plan;
Response: As described in the TIS in Attachment 3, the proposed use is appropriate for the site's traffic street designations. Additionally, the design classifications (SE Salmon Street and SE Main Street are Local Streets, and SE Water Avenue is a Neighborhood Main Street) are also suited for the proposed land use. The intended land use of these designations is:

- SE Salmon Street and SE Main Street (Local Streets): Local Streets are multimodal and important for local circulation of trucks in commercial and industrial areas.
- SE Water Avenue (Neighborhood Main Street): These are segments of Neighborhood Corridors located within the Central City and areas of intensive commercial activity. They are intended to serve a mix of uses which are oriented toward the street.

The street frontages of the proposed venue will be improved to feature wider sidewalks corridors on SE Main Street and SE Salmon Street, consistent with their local street designations in a

Pedestrian District and along SE Water Avenue, consistent with its Major City Walkway and Neighborhood Main Street designations.

It is important to note that the Local Streets along the site's north and south frontages (SE Salmon Street and SE Main Street) terminate as dead ends at the west, adjacent to the Eastbank Esplanade and the I-5 corridor. Because there is no through traffic, local circulation on these streets is light.

As described in the TIS, the proposed use will not impede mobility and streets will continue to fully accommodate truck movements as well as all modes. Cyclists are expected to utilize the Eastbank Esplanade, Major City Bikeways along SE Water Avenue and SE Salmon Street, and the City Bikeway along SE Main Street to travel to/from areas surrounding the proposed venue.

2. *If the proposed use will be located in an industrial zone, it will not have a significant adverse effect on truck and freight movement;*

Response: As noted in the TIS, the project is not expected to significantly impact truck movement and will protect the important freight connection between the Central Eastside and nearby regional truck routes along Interstate 5 and OR 99E. Adjacent and nearby streets will continue to fully accommodate truck movements (and all modes of transportation). The loading dock and staging area for the proposed venue will be located away from the SE Water Avenue Priority Truck Street to allow efficient passage for large vehicles. See the updated Traffic Control Plan. This standard is met.

3. *Transportation system:*

   a. *The transportation system is capable of supporting the proposed use in addition to the existing uses in the area. Evaluation factors include safety, street capacity, level of service, connectivity, transit availability, availability of pedestrian and bicycle networks, on-street parking impacts, access restrictions, neighborhood impacts, impacts on pedestrian, bicycle, and transit circulation. Evaluation factors may be balanced; a finding of failure in one or more factors may be acceptable if the failure is not a result of the proposed development, and any additional impacts on the system from the proposed development are mitigated;…*

Response: As stated in the TIS and its attached Transportation and Parking Demand Management (TDM) Plan, with the recommended and planned improvements, the transportation system is capable of safely supporting the proposed development in addition to accommodating the existing uses. The site is very accessible to pedestrians and bicyclists and is well-served by a network of continuous sidewalks and bike facilities on the surrounding streets as well as nearby existing private vehicle parking, and transit stops. See the TIS for more discussion on the system in general, and the itemized responses below.

…safety,…

Response: The proposed enhancements such as frontage improvements and those described in the TDM (attached to the TIS) will improve safety.

…street capacity,…

Response: Tables 17-19 in the TIS provide the post project analysis; no impacts were identified.

…level of service,…

Response: Table 17 shows all study intersections are expected to continue to meet mobility targets.

…connectivity,…
Response: The pedestrian and bikeway discussions in the TIS address connectivity. The project is adjacent to a well-connected system and has connections to transit stops and other destinations. Also, see the TDM plan (attached to the TIS) for discussion on these modes.

…transit availability,…
Response: See the transit travel demand and access discussion in the TDM plan, which addresses where transit stops are located and what service is running during the events.

…availability of pedestrian and bicycle networks,…
Response: The TIS and the TDM plan (attached to the TIS) explain that these are available.

…on-street parking impacts,…
Response: The parking analysis in the TIS explains the supply exceeds demand; also, see the TDM plan (attached to the TIS).

…access restrictions,…
Response: As noted in the TIS, loading access is not allowed on two streets; this means no driveways for loading are allowed: "Loading is not allowed on the SE Water Avenue and SE Salmon Street frontages of the proposed venue given the Major City Bikeway designation that prohibits it." Loading access is not proposed on these limited streets.

…neighborhood impacts,…
Response: The TIS discusses site conditions and land use. All other components of this response are related to impacts in general.

…impacts on pedestrian, bicycle, and transit circulation.
Response: The proposed "impact" is the amount of trips the site generates, summarized in the TIS. The improvements in the TIS and TDM plan address these new trips. There are no expected off-site impacts. The Conceptual Traffic Control Plan and flagging operations plan described and shown in the TIS shows how truck movements can occur safely.

This standard is met.

b. Measures proportional to the impacts of the proposed use are proposed to mitigate on- and off-site transportation impacts. Measures may include transportation improvements to on-site circulation, public street dedication and improvement, private street improvements, intersection improvements, signal or other traffic management improvements, additional transportation and parking demand management actions, street crossing improvements, improvements to the local pedestrian and bicycle networks, and transit improvements.

Response: The proposed on-site "impact" is the amount of trips the site generates, summarized in the TIS. Mitigations are summarized in the TIS and TDM plan and below. There are no expected off-site impacts. The development's street frontages will be improved to feature wider sidewalks, to include 12' sidewalk corridors on SE Main Street and SE Salmon Street, consistent with their local street designations in a Pedestrian District,

and a 15' sidewalk corridor along SE Water Avenue, consistent with its Major City Walkway and Neighborhood Main Street designations. Improvements at southwest corner of the SE Water Avenue/SE Salmon Street intersection will encourage safe and convenient crossings of SE Water Avenue for pedestrians walking between nearby destinations. See the TIS for more discussion on proposed measures.

A TDM plan (attached to the TIS) was also prepared for the proposed project to reduce the impact of events on the transportation system and provide employees and attendees with information and incentives to use transportation methods other than single occupancy vehicles. The plan provides strategies to increase the transit, walking, and biking travel options, along with traffic management techniques to ensure that people who travel via motor vehicle effectively navigate to their parking location with fewer delays than would occur under an unmanaged setting.

This standard is met.

c. Transportation improvements adjacent to the development and in the vicinity needed to support the development are available or will be made available when the development is complete or, if the development is phased, will be available as each phase of the development is completed.

Response: As discussed in the TIS, the proposed improvements that are needed to support the venue will be made by the completion of the development in 2025. This standard is met. Additional nearby projects identified in previous studies or plans are not related to project trips and will be completed later by the City as funding becomes available.

4. Public services for water supply, police and fire protection are capable of serving the proposed use, and proposed sanitary waste disposal and stormwater disposal systems are acceptable to the Bureau of Environmental Services.

Response: An Early Assistance meeting was held mid 2022 in which the Portland Water Bureau stated that water is available from the 12" CI water main in SE Water Avenue. The Bureau stated that if the service is found to be inadequate, it can be resized at the expense of the Applicant. In the same EA meeting, BES found that sanitary service is available in SE Water Avenue (12") and if upsizing is needed, that can be done at the expense of the Applicant. BES also found that stormwater infrastructure is available in SE Main Street (8") and SE Water Avenue (12"). See the attached utility plan (sheet C200). The project will pay the fee in lieu of public stormwater management.

PF&R stated in the EA meeting that the Applicant is expected to be able to meet access and water supply requirements. As shown in the utility plan, these services will be used. The Applicant will also pay into the special circumstances fund for off-site stormwater management. Portland Police service is available in the area. Existing public infrastructure is expected to be sufficient, but can be upgraded if necessary as noted by these bureaus, verified through building permit. This standard is met.

B. Appearance. The appearance of the facility is consistent with the intent of the zone in which it is to be located and with the character of the surrounding uses and development;

Response: The intent of the General Industrial Zones is to "promote viable and attractive industrial areas" and the General Industrial 1 (IG1) zone is described in the code as generally having "smaller lots and a grid

block pattern. The area is mostly developed, with sites having high building coverages and buildings which are usually close to the street."

From the exterior, the proposed building will have a similar look and feel to a very upscale warehouse, which will allow it to blend into the industrial area and improve the attractiveness of the area in general. See Attachment 5, which shows how the proposed building exterior design was inspired by existing nearby building exteriors. The proposed building will be four stories in height, similar to the height of surrounding buildings. The building will occupy 31,600 SF of the 32,040 SF lot (after dedications), giving the site a high building coverage ratio. The building's perimeter walls will be at the lot line of abutting street frontages to the north and east, and at or within several feet along the south elevation.

Additionally, other similar uses such as venues, bars, and entertainment exist in the nearby area, including the following listed below. The event venue facility will be very consistent with the character of these surrounding uses and their associated development because it will be in the same or complementary use categories. Event attendees could visit the bars and restaurants before or after attending an event at the proposed venue or the existing entertainment or private event spaces.

- Entertainment: Oregon Museum of Science and Industry (OMSI), Portland Night Market, and Grand Central Bowl.
- Event Venues: Exchange Ballroom, Union/Pine, The Melody Event Center, The Evergreen, and The Redd.
- Bars/Restaurants: Wayfinder, Produce Row, Labyrinth Forge Brewing, Olympia Provisions, Westward Whiskey, Shalom Ya'll, and multiple food cart pods.

Finally, the general purpose of the employment and industrial zone is to provide for a diversity of industrial and business areas, and to support developments that will bring economic viability to the district. Currently, this and other nearby lots are vacant and the proposed building's economic catalyst as an event venue will likely attract other improvements to the area, such as new supporting businesses and development. The City does not have any other venues of this size and level of investment, and the venue is expected to be a significant draw, bringing people to the district and benefitting the surrounding establishments that complement the venue.

C. Benefit. Public benefits of the proposed use outweigh any impacts that cannot be mitigated;
Response: As described above, the proposed on-site "impact" is the amount of trips the site generates, summarized in the TIS. Mitigations are summarized in the TIS and TDM plan and include public frontage improvements and TDM methods. There are no expected off-site impacts and there are no impacts that cannot be mitigated. This standard does not apply.

An event venue on this lot, which is currently vacant and surrounded by commercial and industrial buildings and other vacant lots, will have no other negative public impacts as it will operate largely outside of the hours of operation of the nearby businesses, with the exception of nearby hotels, bars, and restaurants which will likely benefit from the increased after-hours business activity. The proposed development is expected to produce public benefits in large part because its higher level of activity will likely reduce the presence of discarded waste, abandoned cars, crime, and illegal camping, all of which have recently been observed in the vicinity. Additionally, the development will be accompanied by public infrastructure improvements surrounding the block, which will improve the safety and security of the pedestrian environment for people who live and work in the district.

D. In the campus institutional zones…
Response: The site is not in a campus institutional zone. This standard does not apply.

IV. SELECT DEVELOPMENT STANDARDS COMPLIANCE

Staff noted that, while not applicable to the Conditional Use review, the project will need to meet Central City Plan District development standards including ground floor active use. The following section explains the project's compliance with these standards which will be reviewed at time of building permit.

33.510.225 Ground Floor Active Uses

A. Purpose. The ground floor active use standards are intended to reinforce the continuity of pedestrian-active ground-level building uses. The standards help maintain a healthy urban district through the interrelationship of ground-floor building occupancy and street level accessible public uses and activities, and they encourage a transit-supportive, pedestrian-oriented environment that is safe, active with uses, and comfortable for residents, visitors, and others. Active uses include but are not limited to: lobbies, retail, commercial, and office uses, but do not include storage, vehicle parking, garbage, recycling, mechanical, or utility uses.

B. Sites and development subject to the ground floor active use standard. The ground floor active use standards apply to new development and major remodels on sites with frontage on a street shown on Map 510-9.

Response: The site has frontage SE Water Avenue, a street shown on Map 510-9.

C. Ground floor active use standards.

1. Dwelling units are prohibited on the ground floor.

Response: As shown in the attached plans, no dwelling units are proposed on the ground floor. This standard is met.

2. Buildings must be designed and constructed to accommodate uses such as those listed in Subsection A. Areas designed to accommodate these uses must be developed at the time of construction. This standard must be met along at least 50 percent of the ground floor of walls that front onto a sidewalk, plaza, or other public open space.

Response: The proposal is for commercial use, which is an example of an active used described above in 33.510.225.A. As shown in the attached plan Z101a, the site has 506' 11" of wall length along sidewalks and 262'10" (52%) of this will be commercial use area not including excepted functions such as those described above in 33.510.225.A. Storage rooms, utility uses, and other excepted functions are not included in the calculation.

Areas designed to accommodate active uses must meet the following standards:

a. The distance from the finished floor to the bottom of the structure above must be at least 12 feet. The bottom of the structure above includes supporting beams;

Response: As shown in the attached elevations (Z201), the ground floor will be 18'8". This standard is met.

b. The area must be at least 25 feet deep, measured from the street-facing facade;

Response: As shown in the plans (see Z101), the building (the commercial use area) is at least 164'6" deep. This standard is met.

c. The area may be designed to accommodate a single tenant or multiple tenants. In either case, the area must meet the standards of the Accessibility Chapter of

the State of Oregon Structural Specialty Code. This code is administered by BDS; and

Response: The building/commercial use area is designed to accommodate one tenant. The project will meet accessibility requirements; this will be verified through permit review.

d. The street-facing facade must include windows and doors.

Response: As shown on the elevations, all three of the street-facing façades include windows and doors.

3. In the Pearl District and West End subdistricts, on the portion of a site within 100 feet of a streetcar alignment shown on Map 510-13, parking is not allowed in the portions of a building that meet the ground floor active use standard of Paragraph C.

Response: The site is not in the Pear District or West End subdistrict. This standard does not apply.

V. ADJUSTMENT COMPLIANCE

This application requests Adjustments with respect to two Code requirements:

- 33.266.310.C.2.c. (number of Standard A loading spaces located entirely on the site).
- 33.510.243.B.1. (ecoroof coverage).

The applicable sections are quoted and addressed below, followed by responses to the Adjustment approval criteria.

33.266.310 Loading Standards

A. Purpose. A minimum number of loading spaces are required to ensure adequate areas for loading for larger uses and developments. These regulations ensure that the appearance of loading areas will be consistent with that of parking areas. The regulations ensure that access to and from loading facilities will not have a negative effect on the traffic safety or other transportation functions of the abutting right-of-way.

B. Where these regulations apply. The regulations of this section apply to all required and non-required loading areas.

Response: The applicant is proposing an Adjustment for required loading areas.

C. Number of loading spaces.

1. Buildings where all of the floor area is in Household Living uses must meet the standards of this Paragraph…

Response: None of the floor area will be in Household Living uses. This standard does not apply.

2. Buildings where any of the floor area is in uses other than Household Living must meet the standards of this Paragraph.

a. Buildings with any amount of net building area in Household Living and with less than 20,000 square feet of floor area in uses other than Household Living are subject to the standards in C.1. above.

b. One loading space meeting Standard A is required for buildings with at least 20,000 and up to 50,000 square feet of net building area in uses other than Household Living.

c. Two loading spaces meeting Standard A are required for buildings with more than 50,000 square feet of net building area in uses other than Household Living.

Response: The proposed building has more than 50,000 SF of net building area in uses other than Household Living; therefore, two Standard A loading spaces are required. An Adjustment is being requested for the requirement of on-site loading areas. The applicant is proposing, instead, to obtain agreements with PBOT for an Angle Loading Permit on SE Main Street to address loading needs. The side streets abutting the proposed development dead-end at the west (at the I-5 corridor) and do not experience much vehicular use because they do not accommodate through traffic. Due to the site location and layout of streets, access, and traffic patterns, temporary closures will not have any negative effect on the traffic safety or other transportation functions of the abutting right-of-way.

D. Size of loading spaces. Required loading spaces must meet the standards of this subsection.

1. Standard A: the loading space must be at least 35 feet long, 10 feet wide, and have a clearance of 13 feet.

2. Standard B: The loading space must be at least 18 feet long, 9 feet wide, and have a clearance of 10 feet.

Response: The proposed Adjustment will involve an agreement with PBOT to use temporary road closures for loading needs. This standard does not apply to the spaces extending into the right-of-way or the portions of those spaces on the site as those are not required following this Adjustment approval; however, as shown in the attached plans, the proposed the loading spaces will be 35' long and 10' wide in compliance with the size requirements, with 63% of the loading area located off the site.

E. Placement, setbacks and landscaping. Loading areas must comply with the setback and perimeter landscaping standards stated in Table 266-8 below. When parking areas are prohibited or not allowed between a building and a street, loading areas are also prohibited or not allowed.

Response: An Adjustment is being requested to reduce the requirement for on-site loading spaces from two to zero because, while the building will have two Standard A loading docks near the southwest building corner, the standing area for the docked trailers and semi-tractors will be located mostly within the SE Main Street right-of-way rather than on the property itself. The operation will require PBOT Angle Loading Permits. Under this Adjustment and PBOT permitting, the limited on-site areas used for loading would be categorized as general vehicle area and would not be subject to setback and perimeter landscaping standards for loading facilities.

F. Forward motion.

1. Outside the Central City plan district. Outside the Central City plan district, loading facilities generally must be designed so that vehicles enter and exit the site in a forward motion. Standard B loading spaces that are accessed from a Local Service Traffic Street are exempt from this requirement.

2. In the Central City plan district. In the Central City plan district, loading facilities that abut a light rail or streetcar alignment must be designed so that vehicles enter and exit the site in a forward motion.

Response: The site is in the Central City Plan District. The site does not abut a light rail or streetcar alignment. This standard does not apply.

G. Paving. In order to control dust and mud, all loading areas must be paved.

Response: If the Adjustment is approved, the alternative loading will still occur in a paved area. Paving of all required surfaces, within both the site and the public right-of-way, will comply with this standard.

33.510 Central City Plan District

33.510.243 Ecoroofs

A. Purpose. Ecoroofs provide multiple complementary benefits in urban areas, including stormwater management, reduction of air temperatures, mitigation of urban heat island impacts, air quality improvement, urban green spaces, and habitat for birds, plants and pollinators. The standards are intended to:

- *Maximize the coverage of ecoroofs;*
- *Allow for the placement of structures and other items that need to be located on roofs; and*
- *Support the architectural variability of rooftops in the Central City.*

B. Ecoroof standard. In the CX, EX, RX, and IG1 zones, new buildings with a net building area of 20,000 square feet or more must have an ecoroof that meets the following standards:

1. The ecoroofs, including required firebreaks between ecoroofs areas, must cover 100 percent of the building roof area, except that up to 40 percent of the building roof area can be covered with a combination of the following. Roof top parking does not count as roof area. Roof area that has a slope greater than 25% does not count as roof area:

a. Mechanical equipment, housing for mechanical equipment, and required access to, or clearance from, mechanical equipment;
b. Areas used for fire evacuation routes;
c. Stairwell and elevator enclosures;
d. Skylights;
e. Solar panels;
f. Wind turbines;
g. Equipment, such as pipes and pre-filtering equipment, used for capturing or directing rainwater to a rainwater harvesting system; or
h. Uncovered common outdoor areas. Common outdoor areas must be accessible through a shared entrance.

Response: As shown in the attached plans (see sheet Z105), the roof area (not including areas with slope greater than 25%) is 10,380 SF. Mechanical equipment areas occupy 2,600 SF (25%). As shown, 2,100 SF of the roof area (20%) is proposed for ecoroofs due to structural design requirements for ecoroofs that cannot be met for the proposed structure (this does not include plant material on the canopy over the main entrance). An Adjustment to standard B.1. is requested.

2. The ecoroof must be approved by the Bureau of Environmental Services as meeting the Stormwater Management Manual's Ecoroof Facility Design Criteria.

Response: As noted in the stormwater report in Attachment 4, the ecoroof will meet BES standards. This can be verified at time of building permit. This standard is met.

33.805 Adjustments

This application includes two Adjustment requests, as noted above. The section below responds to the Adjustment approval criteria for each Adjustment separately.

33.805.040 Approval Criteria

The approval criteria for signs are stated in Title 32. All other adjustment requests will be approved if the review body finds that the applicant has shown that either approval criteria A. through F. or approval criteria G. through I., below, have been met.

A. Granting the adjustment will equally or better meet the purpose of the regulation to be modified; [and]

Adjustment 1 Response: The purpose of the loading space standard is in 33.266.310.A. The response below addresses each component of the purpose statement.

A minimum number of loading spaces are required to ensure adequate areas for loading for larger uses and developments…
Response: The minimum number of loading spaces is two, required to be provided on the site; however, due to the high building coverage design expected for and encouraged by the zone, these cannot be provided entirely on-site. Two Standard A spaces will be provided, meeting the purpose of the standard, in an alternative location partially within the SE Main Street public right-of-way.

These regulations ensure that the appearance of loading areas will be consistent with that of parking areas…
Response: Surface parking is prohibited in the Central City Plan District, though street parking exists throughout the District. It would not be as appropriate and consistent with the neighborhood to provide loading areas with standard landscape setbacks in this urban location within the Central Eastside Freight District. The proposed loading spaces will look more like the allowed street parking as they will be part of the public street.

The regulations ensure that access to and from loading facilities will not have a negative effect on the traffic safety or other transportation functions of the abutting right-of-way…
Response: As described in the TIS, all three streets near the proposed venue have Freight District or Priority Truck District Street designations since the area is located within the Central Eastside Freight District. These designations require the streets to be designed to fully accommodate truck movements without impeding their mobility. The proposed loading docks will require an Angle Loading Permit from PBOT when in use to support events. Such street closure will not impede traffic safety or transportation functions because the affected street section on SE Main Street dead ends into the Eastbank Esplanade area and experiences minimal traffic circulation. Additionally, SE Main Street is not designated a Major City Bikeway, so cyclists will not be affected by operations at the dock doors.

Safety support for truck maneuvering will be achieved through the likely requirement of a flagger to assist with the maneuver.

The applicant has had conversations with PBOT representatives who have indicated their support for Angle Loading Permits as a solution to our loading strategy. PBOT indicated a willingness to provide us with long-term certainty on our ability to use the SE Main Street right-of-way for this loading use.

This criterion is met.

Adjustment 2 Response: The purpose of the ecoroof standard is in 33.510.243.A. The response below addresses each component of the purpose statement.

Ecoroofs provide multiple complementary benefits in urban areas, including stormwater management,…
Response: The proposal will include stormwater management methods in compliance with BES standards, as described in the attached stormwater report.

reduction of air temperatures, mitigation of urban heat island impacts,…
Response: As shown in the attached roof plan, in areas where there is no ecoroof installed, the building will have a white TPO roof designed to reflect solar radiation, reduce ambient air temperatures, and mitigate the urban heat island effect.

air quality improvement, urban green spaces, and habitat for birds, plants and pollinators…
Response: In addition to 2,100 SF of ecoroof, the project proposes planters installed on the canopies along all three street-facing sides of the building, allowing for additional planting area for plants and trees which will improve air quality. Non-structural stainless-steel cables will extend from the planters to the building parapet to allow plants to grow vertically. The ecoscreen of plants along the building's upper façades will also reduce the overall heat gain of the building while also increasing air quality and providing habitats for birds, plants, and pollinators. These planters will also add significantly to the urban greenspace appearance of the building and site (currently impervious gravel) and create additional habitat.

The standards are intended to:
- *Maximize the coverage of ecoroofs;*
- *Allow for the placement of structures and other items that need to be located on roofs; and*
- *Support the architectural variability of rooftops in the Central City.*

Response: The project includes as much ecoroof as possible given the design and structural support needs of ecoroofs. Adequate mechanical equipment area is allowed. The angled roof shape and variety within the form of the proposed building will be a unique feature in the district that will add significantly to the overall architectural variability of rooftops in the Central City, most of which are flat or relatively flat.

The landscape plans (see L202 and L205) propose the utilization of a geocell grid within the ecoroof assembly to mitigate potential soil erosion issues, which could adversely affect the long-term health of the plants. The proposed ecoroof plant species have been selected for their ability to provide habitat and ecological benefits. These species consist of a mix of herbaceous and native plants that support pollinators, butterflies, birds, and other wildlife. The proposed plant sizes will be denser than typical for the allowable media depth, ensuring a substantial impact upon installation.

B. If in a residential, CI1, or IR zone, the proposal will not significantly detract from the livability or appearance of the residential area, or if in an OS, C, E, I, or CI2 zone, the proposal will be consistent with the classifications of the adjacent streets and the desired character of the area; [and]

Response: This response addresses the proposal as a whole, including the two Adjustments.

The site is in an I zone. The classifications of the adjacent streets are addressed in the Public Services section above (33.815.215.A); as described there, the project will be consistent.

As also discussed above (33.815.215.B), the local area has many other event and entertainment venues and businesses, and the building appearance and height will blend in with the surrounding buildings. This is consistent with the desired character of the IG1 zone at and adjacent to the subject property:

> ***Desired Character.*** *The preferred and envisioned character (usually of an area) based on the purpose statement or character statement of the base zone, overlay zone, or plan district. It also includes the preferred and envisioned character based on any adopted area plans or design guidelines for an area.*

As noted in the responses to 33.815.215.B. above, the intent of the General Industrial Zones is to "promote viable and attractive industrial areas" and the General Industrial 1 (IG1) zone is described in the code as generally having "smaller lots and a grid block pattern. The area is mostly developed, with sites

having high building coverages and buildings which are usually close to the street." See the response to 33.815.215.B. for an explanation of how the proposal is consistent with the purpose of the base zone.

There is no overlay district, but the site is in the Central City plan district, which implements the Central City 2035 Plan, a plan that identifies many components of the unique character of the Central City. Per 33.510.010:

> *The Central City plan district implements the Central City 2035 Plan. The regulations address the unique role the Central City plays as the region's premier center for jobs, health and human services, tourism, entertainment and urban living. The regulations encourage a high-density urban area with a broad mix of commercial, residential, industrial and institutional uses, and foster transit-supportive development, pedestrian and bicycle-friendly streets, a vibrant public realm and a healthy urban river.*

The Central City is the area of the City most appropriate for a large entertainment venue such as the proposed development. The proposal will connect users to transit, improve pedestrian facilities, provide for bicycle facilities, and create a more vibrant public realm. The proposed development is consistent with the desired character of the Central City district as it provides an entertainment venue, supports a mix of uses in the area, and will encourage multimodal transportation through several methods identified in the TDM plan (attached to the TIS).

Additional descriptions of how the proposal meets the desired character of the area can be found in Section VI of this narrative. In Section VI, the relevant policies from the Buckman Neighborhood Plan and the Central City 2035 Plan are discussed.

As component features of the overall project, Adjustment 1 will allow the proposed dock door configuration and Adjustment 2 will allow the project to satisfy stormwater management requirements by combining a partial eco-roofing of the building (to the extent feasible based on its compound-slope design) with other on-site treatment facilities.

Neither of the requested adjustments will cause the proposed development to be inconsistent with the classifications of the adjacent streets and the desired character of the area. This standard is met.

C. If more than one adjustment is being requested, the cumulative effect of the adjustments results in a project which is still consistent with the overall purpose of the zone; and

Response: The two adjustment requests pertain to distinct and mostly unrelated code compliance issues concerning the proposed plan for a new event venue. This venue is allowed conditionally and meets all the criteria for conditional use approval, including alignment with the zone's intent, as previously discussed in the responses to 33.815.215.B. and 33.805.040.B.

Adjustment 1 will allow the required number of loading spaces in a more urban setting, which is quite typical within the Central Eastside industrial area. Adjustment 2 will allow for less ecoroof coverage than required, but the proposal includes several unique and innovative green design features, including partial eco-roofing combined with stormwater facilities to meet the purpose of the standard. The combined effect of the proposed Adjustments will be to allow a better site-specific design for the conditionally allowed use, which will benefit the district and zone in this area.

This criterion is met.

D. City-designated scenic resources and historic resources in Historic, Conservation and National Register Districts and within the boundaries of Historic, Conservation and National Register Landmarks are preserved; and

Response: The site does not contain any City-designated scenic or historic resources. The requested Adjustments will not have any adverse impact on any City-designated resources.

E. Any impacts resulting from the adjustment are mitigated to the extent practical; and

Adjustment 1 Response: The proposed alternative to loading requirements will not impact traffic operations because the street dead-ends at the west end of SE Main Street, so no through traffic is allowed. Additionally, within the Central Eastside Industrial District, streets were designed to accommodate truck traffic and loading within the right-of-way and continue to operate on that basis today. Finally, since event-based PBOT Angle Loading Permits will be used for loading on the dead-end segment of SE Main Street, traffic on these roads will not be impacted. Other potential changes are discussed in the TIS and could include: a semi-permanent swinging gate that can be closed to block the sidewalk and landscape area when trucks are parked at the loading docks; a curb extension on Main Street (and subsequent removal of the existing curb extension on Water Avenue for the future two-way cycle track); and reconfiguration of the travelway to the west of the loading dock for the proposed venue to include angled parking on the north side of SE Main Street. Proposed Adjustment 2 meets this criterion.

Adjustment 2 Response: No impacts are anticipated as a result of the requested Adjustment to meet stormwater requirements using less ecoroof area than the standard requires. The proposal includes several unique design qualities, including an elevated stormwater planter, to meet the purpose of the standard being modified. This standard does not apply to Adjustment 3.

F. If in an environmental zone, the proposal has as few significant detrimental environmental impacts on the resource and resource values as is practicable;[or]

Response: The proposed project is not located within an environmental zone. This standard does not apply.

G. Application of the regulation in question would preclude all reasonable economic use of the site; and

H. Granting the adjustment is the minimum necessary to allow the use of the site; and

I. Any impacts resulting from the adjustment are mitigated to the extent practical.

Response: The applicant requests approval based on compliance with criteria A through F. Findings are therefore not required to address criteria G through I.

VI. AREA PLANS COMPLIANCE

Buckman Neighborhood Plan

Policy 1: Maintain and improve the quality and urban character of Buckman's physical environment and attract compatible development.

Objective 1.1 Maintain and improve the historic character of Buckman.

A. Modify the 19th century street grid to reduce through traffic and provide opportunities for recreation and parking improvements. (PDOT)

Response: The proposed event venue will be consistent with and improve the character of the industrial area surrounding SE Water Avenue. No changes are proposed to the block layout, but the proposed attractive building design and pedestrian improvements will create a more appealing and walkable block where there is currently an empty lot which is often occupied with illegal camping and trash. The newly improved sidewalk and proposed street tree additions will also create extra visual friction along the roadside which is known to be traffic calming. The project includes temporary street closures and parking measures for bicycles to improve existing infrastructure and promote foot traffic for the proposed venue. The proposal aligns with this guideline.

Objective 1.2 Advocate physical changes that strengthen neighborhood identity and livability.

A. Work to develop a target area improvement plan (TAIP) for areas in need of direct revitalization. (REACH)

B. Develop a neighborhood marketing plan and work with realtors to implement it. (BCA)

C. Create special street signs for the neighborhood. (BCA)

D. Remove billboards along neighborhood collector streets. (Legislature)

E. Encourage shared use of yards. (BCA)

F. Support placing utility wires and facilities underground. (BCA, City)

G. Create a community land trust to preserve land for uses like affordable housing and open space. (REACH)

H. Clearly indicate entry into the Buckman neighborhood by signs and landmarks. (BCA)

I. Expand the use of vacant land for vegetable gardening (community or private vegetable gardens). (Parks, private, HCD, PDC)

Response: The proposed venue has a thoughtfully designed exterior that will not only be in line with the character of the area but also an aesthetic improvement to the surrounding blocks. The addition of the living walls, ecoroof, storm planter, and street trees will bring added green to an industrial area. The venue use will also bring added foot traffic and patronage to the surrounding businesses. The proposal aligns with this guideline.

Objective 1.3 Develop and enhance Buckman's pedestrian environment.

A. Widen sidewalks and install street furniture, informational kiosks, and neighborhood identification signs at appropriate locations in Buckman. (PDOT, HCD)

B. Plant street trees, including appropriate fruit and nut trees, in residential and commercial areas. (BCA, FOT)

Response: The proposed project includes dedications and improvements for an enriching pedestrian landscape through the planting of 11 street trees and the inclusion of a stormwater planter overlooking the sidewalk on SE Main Street. Ecoroofs will be provided on the east and west sides of the building, and another planter will be provided at the main entrance corners adding live plant material and softness to the pedestrian environment. The proposal aligns with this guideline.

Objective 1.4 Encourage restoring existing properties rather than razing and replacing them.

Response: The proposed venue will be built on a vacant lot. No structures will be razed or replaced. This guideline does not apply to this site.

Objective 1.5 Encourage new development and renovation of existing structures to meet Buckman commercial and residential architectural guidelines. (see Appendix)

Response: The proposed venue is designed to blend in with the surrounding built environment by incorporating windows, painted masonry and concrete, and suspended canopies into the building exterior. These elements are found throughout existing buildings within the Buckman Neighborhood as shown in Attachment 5 Context Images. The proposal aligns with this guideline.

Objective 1.6 Support planning and design of new developments that enhance neighborhood livability.

A. Work with developers early in the development process to comment on their plans and discuss environmental impacts of proposed development on the neighborhood, e.g. noise, air, lead, and particulate pollution, hazardous waste, vibration and odor. (BCA)

B. Work with realtors and developers to attract development compatible with the neighborhood. (BCA)

C. Preserve public views to downtown and the west hills. (BOP)

Response: The proposed venue has a thoughtfully designed exterior that will not only be in line with the character of the area but also an aesthetic improvement to the surrounding blocks. The addition of the living walls, ecoroof, storm planters, and street trees will bring added green to an industrial area. The venue use will also bring added foot traffic and patronage to the surrounding businesses.

Objective 1.7 Promote the development of a clear identity for commercial nodes on Burnside, Belmont/Morrison, Hawthorne and the Central Eastside.

A. Work with businesses to encourage the use of signs that reinforce neighborhood identification. (BCA)

Response: No signs are proposed for the project at this time. This guideline is not applicable to the proposal.

Objective 1.8 Promote the use of renewable resources.

A. Encourage property owners to preserve solar access on their own and neighboring properties. (BOP)

Response: The proposed venue is adjacent to and across the street from other vacant lots. At only four stories in height, the proposed building is within the height limit for the zone and will not have significant impact on future developments' access to solar energy. The proposal aligns with this guideline.

Objective 1.9 Promote the reduction of air pollution, noise, energy use, litter, solid waste, and use of hazardous materials in Buckman.

A. Provide education and incentives for residents to recycle solid and organic waste materials. (Metro)

Response: Sustainability guided both the interior and exterior design of the proposed venue with the inclusion of the ecoroof, stormwater well, and choice of construction materials. The proposed building will have a roofing membrane that is compliant with cool roof requirements to conserve energy. Throughout the venue, responsible waste disposal receptacles will be readily available for patrons. The proposal aligns with this guideline.

Objective 1.10 Ensure that zoning, building, noise and nuisance regulations are enforced.

A. Bring existing parking lots up to city standards for surfacing, striping, and landscaping. (BOP, BOB, Private)

B. Improve control of animals. (Mult. Co.)

Response: The proposed project meets all the relevant zoning, building, noise, and nuisance requirements. The proposal aligns with this guideline.

A. The proposed venue will be built on a vacant lot and does not include a parking lot. This guideline is not applicable to the proposal.
B. The proposed venue is not related to animals. This guideline is not applicable to the proposal.

Objective 1.11 Use the design review process in the CEID to encourage development that is compatible with the surrounding area and encourage voluntary design review in the rest of the neighborhood.

Response: The site is not in a design overlay. This guideline is not applicable to the proposal; however, the thoughtful design of the proposed building will not only fit in with the character of the area but will be an improvement to the immediate surroundings.

Objective 1.12 Continue to work toward the expansion of design review in Buckman.

Response: The site location is in the Central Eastside Industrial District of the Buckman neighborhood in an area that is currently underdeveloped and adjacent to I-5 and Design Review is not a requirement. This guideline is not applicable to the proposal; however, the thoughtful design of the proposed building will not only fit in with the character of the area but will be an improvement to the immediate surroundings.

Objective 1.13 Enourage business owners to provide privately owned open spaces that can be enjoyed by the neighborhood.

Response: The proposed widened pedestrian area along SE Water Avenue will provide an amenity space for patrons of the venue as well as the public. The proposal aligns with this guideline.

Objective 1.14 Encourage business owners to provide public art and associated amenities such as: benches, flower boxes and drinking fountains.

Response: The proposed building and natural amenities such as the green walls at the main entrance corners will feel elegant and artistic, and bring a sense of style and charm to the area. The proposal aligns with this guideline.

Policy 4: Keep Buckman Safe and neighborly through active involvement in crime prevention and by building a sense of community.

Objective 4.1 Ensure that life, property, and human rights are protected.

Response: The proposed venue will not create any infringements on life, property, or human rights. Opposingly, the active nature of the development particularly at night will likely make the neighborhood safer for all who are there. The proposal aligns with this guideline.

Objective 4.2 Encourage the police to increase their visibility and accessibility.

A. Support Portland's Community Policing program. (BCA, CEIC, Citizens)

Response: The presence of a development such as the proposed event venue will be naturally accompanied by both an increased police presence and higher foot traffic and visibility during the hours of nighttime operation that don't currently exist in the immediate surrounding area. Currently, the area is a magnet for crime as several of the surrounding lots are vacant and the immediate area is mostly occupied by daytime or early evening activity. The proposal aligns with this guideline.

Objective 4.3 Promote crime-prevention programs that help residents, business people and property owners share responsibility for neighborhood safety and security.

A. Better coordinate crime prevention and community building activities. (BCA, SEUL)

B. Sponsor crime prevention workshops, programs, and activities which include discussion of the causes and remedies for criminal activity, including preventative measures. (BCA, SEUL, Community Police)

C. Increase the number of neighborhood watch blocks. (BCA)

D. Encourage landlords to participate in education programs stressing crime prevention and community building. (Police, BCA)

Response: Venue security, along with increased foot traffic during event times, will create a more safe and secure feeling area. The proposal aligns with this guideline.

Objective 4.4 Increase the neighborhood use of and enhance safety at Buckman parks and open spaces.

A. Ensure park security by enforcing the prohibitions on alcohol and hours of operation, trimming landscaping, and enforcing city curfews. (Parks, Police, CPTED)

B. Install an emergency phone in Colonel Summers Park. (Parks)

C. Work with the St. Francis Park Board to increase visibility and safety in St. Francis Park. (St. Francis)

D. Support consistent, year-round hours of operation for Lone Fir Cemetery. (Mult. Co.)

Response: Events at the proposed venue will attract many visitors to the neighborhood and could increase the use of Buckman parks; however, this objective seems geared toward specific parks with specific goals that will not apply to the proposed development.

That said, alcohol consumption will be limited to inside the proposed venue. Patrons will be monitored both entering and exiting the proposed venue to ensure compliance. Park security will not be affected. This guideline is not applicable to the proposal.

Objective 4.5 Address the neighborhood problems of drug houses, racism, and gang activity such as graffiti.

E. Use the neighborhood mediation program to resolve problems. (Mediation)

Response: As mentioned, the proposed development will reduce crime and increase security in the area, which will only assist in accomplishing Objective 4.5. The proposal aligns with this guideline.

Objective 4.6 Encourage development of appropriate landscaping and apply the principles of crime prevention through environmental design to create safer streets, yards, and open spaces.

Response: The proposed venue includes many welcoming elements like widened sidewalks, stormwater planter, trees, and lighting that will make the area feel safer. The proposal aligns with this guideline.

Objective 4.7 Promote ongoing activities and special events that develop a greater sense of community.

A. Organize community self-help projects and celebrations such as: clean-ups, paint-a-thons, block parties and garage sales. (BCA)

B. Recognize the accomplishments of individuals and organizations that help to improve the Buckman neighborhood. (BCA)

C. Involve renters in neighborhood activities. (BCA)

D. Seek funding to help implement strategies outlined in the neighborhood plan. (BCA, SEUL)

E. Create T-shirts, pins, hats, and various other items with the Buckman Commmunity Association logo for sale to improve neighborhood identity. (BCA)

Response: The tenant for the venue encourages its employees to support local charities, non-profits, and community organizations. This could bring much needed capacity to jumpstart these initiatives. This proposal aligns with this guideline.

Objective 4.8 Encourage the development and maintenance of a Buckman communications network to promote a positive neighborhood environment.

A. Expand newsletters and other means of communication to share current information, activities, and opinions, including a calendar of neighborhood events. (BCA, Newsletter)

B. Create opportunities for Buckman neighbors to share skills and interests. (BCA)

C. Identify individuals who have skills and knowledge that can benefit the neighborhood. (BCA)

Response: The capacity of the proposed venue is 3,500, creating the opportunity for flyers and announcements posted in the area to reach a broad audience. The proposed venue may serve as an attractive gathering place for community events. The proposal aligns with this guideline.

Objective 4.9 Encourage schools, churches, and business groups to sponsor or assist in organizing activities that serve Buckman neighbors.

Response: A proposed event venue on this site will increase activity options for Buckman neighbors as well as event space options. The proposal aligns with this guideline.

Policy 5: Maintain mobility through alternative forms of transportation and reduce the impact of auto and truck use in Buckman.

Objective 5.1 Control neighborhood traffic and parking to ensure safety and livability for neighborhood residents.

A. Consider a street design plan for Buckman's local streets. (BCA)

B. Request a neighborhood traffic management plan for streets where specific problems are identified. (BCA, NTMP)

C. Establish a traffic subcommittee of the Buckman Community Association to identify and respond to traffic problems. (BCA)

D. Identify intersections where traffic visibility is impaired and report them to the district traffic engineer. (BCA, Citizens)

E. Place "no parking" signs near intersections to improve visibility. (PDOT)

F. In residential areas, oppose new surface parking lots where housing would be removed or open space would be reduced. As an alternative to new parking lots, encourage alternative methods such as carpooling or transit. (BCA)

G. Investigate the implementation of diagonal parking where the parking is needed and the right-of-way is of sufficient width. (PDOT)

H. Improve the Burnside/12th/Sandy intersection. (PDOT)

I. Only support reductions to required parking where on-street parking is underutilized or when the property owner agrees to rent only to tenants without autos. (BCA)

Response: The proposed venue will not be built in a residential zone. Neighborhood residents should be minimally impacted by parking and traffic especially as the venue event times will often be after hours in the business and industrial area. The proposal aligns with this guideline.

Objective 5.2 Encourage alternatives to automobile use.

A. Encourage new residential development that is targeted to populations without autos. (BOP)

B. Encourage employers to provide incentives for the use of alternative transportation modes. (Private)

C. Advertise the benefits of transit ridership. (Tri-Met, BCA, Neigh. media)

D. Require local businesses and large institutions to use travel demand management to alleviate parking problems. (Private)

Response: The proposed venue does not include a parking lot and will instead encourage the use of walking, biking, transit, and rideshare services, as described in the TDM plan attached to the TIS in Attachment 3.

Objective 5.3 Support improved public transit service to: 1) better serve Buckman residents, 2) ensure that citizens with special needs are served and 3) accommodate future increased commuter trips between downtown and East Multnomah County, without adding auto and truck traffic in the Buckman neighborhood.

A. Establish transit shortline routes between Buckman and downtown to ensure that there is space on buses for Buckman residents. (Tri-Met)

B. Provide amenities (shelters, schedules, rider information, trash receptacles, etc) at more bus stops. (Tri-Met)

C. Pursue re-establishment of bus service on SE Stark Street. (Tri-Met)

D. Support efforts to re-establish electric trolley service. (Tri-Met)

Response: The site is located in the Central Eastside Industrial District portion of Buckman and is not expected to increase auto and truck traffic in neighborhood areas. There is, however, nearby transit service available for patrons of the venue and modes of transportation other than drive alone trips will be encouraged, as described in the TDM plan attached to the TIS in Attachment 3. The proposal aligns with this guideline.

Objective 5.4 Support improvements for pedestrian and bicycle use and safety.

A. For the bike routes on SE Ankeny and Salmon, install traffic diverters that decrease auto traffic on through streets without restricting bike access. (PDOT)

B. Request additional curb ramps. (PDOT)

C. Improve routes to the Willamette River. (PDOT)

D. Paint stop bars (white lines) across streets where there are stop signs. (PDOT)

Response: The proposal includes a widened sidewalk along SE Water Avenue and other sidewalk improvements such as street trees. Ther is also already existing bike lanes along SE Water Avenue and a bikeway leading to the Eastbank Esplanade. The proposal aligns with this guideline.

Objective 5.5 Support reduction of auto traffic speeds and volumes on neighborhood collectors and local traffic streets.

A. Use the Speed Watch program to control traffic speeds. ((PDOT, Citizens)

Response: The wide sidewalk and proposed street tree additions will create extra visual friction along the roadside which is known to be traffic calming. The proposal aligns with this guideline.

Objective 5.6 Reclaim neighborhood streets through methods such as traffic control devices, pedestrian-activated signals, traffic circles, street signs, and through education and enforcement.

Response: The site is not located within the neighborhood sections of Buckman. This objective doesn't apply but there are existing signals and street signs in the area and along SE Water Avenue.

Objective 5.7 Consider traffic operation changes on SE Belmont to ensure that it functions as a pedestrian-friendly, neighborhood-shopping street.

A. Consider changing the Morrison/Belmont couplet to two-way streets as far west as possible to reduce traffic volume and speed and enhance the neighborhood character. (PDOT)

Response: The proposed project does not include any traffic operation changes on SE Belmont. This guideline is not applicable to the proposal.

Objective 5.8 Discourage nonresident commuters from driving through or parking on Buckman streets.

A. Enforce overnight truck parking regulations. (PDOT, Police)

Response: The site is not located within the neighborhood sections of Buckman.

Objective 5.9 Encourage shared uses of commercial and institutional off-street parking.

Response: The proposed project involves utilizing existing commercial and institutional off-street parking at non-peak times. Additionally, the proposal aims to discourage vehicular traffic through temporary street closures. See the TIS. The proposal aligns with this guideline.

Objective 5.10 Discourage trucks from blocking the streets when loading and unloading, except in the designated truck zone.

Response: The proposal includes an Adjustment for on-site loading and meets the approval criteria for adjustment. A separate approval will be obtained through PBOT for a designated truck zone on and adjacent to the site. The proposal aligns with this guideline.

Policy 6: Promote and improve educational, recreational, and cultural resources and activities in the Buckman neighborhood.

Objective 6.1 Strengthen interaction between the schools and the community.

A. Improve citizen interaction with Portland Public School District Number One. (School District, Citizens)

B. Promote better interagency coordination, e.g., between city Parks Bureau and the public school system in order to enhance neighborhood use of existing facilities. (School District, Parks)

Response: The proposed venue is not related to Portland Public Schools. This guideline is not applicable to the proposal.

Objective 6.2 Advocate strengthening school programs that enhance personal development, neighborhood identity and livability.

A. Identify programs that aid parents in fostering the academic performance of their children. (School District, Impact, OMSI, PTA)

B. Attract an educational program to the vacant St. Francis School. (BCA)

Response: The proposed venue is not related to Portland Public Schools. This guideline is not applicable to the proposal.

Objective 6.3 Support the continued availability of Buckman Elementary School for primary education, as an arts magnet school, and for before- and after-school care.

Response: The proposed venue is not related to Portland Public Schools. This guideline is not applicable to the proposal.

Objective 6.4 Foster life-long educational opportunities for residents.

A. Make Buckman school a Community School. (School District, Parks)

B. Use school buildings for evening classes and recreational activities for all ages. (School District)

C. Encourage community college use of Buckman school facilities. (BCA)

Response: The proposed venue is not related to Portland Public Schools. This guideline is not applicable to the proposal.

Objective 6.5 Promote strategies to maximize neighborhood use of school facilities and programs.

A. Encourage Buckman school, Child Services Center, and Central Catholic High School to open their facilities for year-round, neighborhood use. (BCA)

B. Promote the Buckman Indoor Park at the Child Services Center. (BCA, neighborhood media, School District)

C. Use Central Catholic High School for community activities. (Central Catholic)

Response: The proposed venue is not related to Portland Public Schools. This guideline is not applicable to the proposal.

Objective 6.6 Promote establishing community centers to serve all age groups.

Response: While the proposed project is not a community center, the proposed venue will host a variety of events that will attract people of all ages. The proposal aligns with this guideline.

Objective 6.7 Encourage youth programs that build character and promote social responsibility.

A. Identify programs that provide positive academic, social, fitness, and recreational opportunities for youth. (Parks, School District, PTA)

Response: Though there is no youth program proposed at this time, the venue will increase the cultural and recreational options available in the area. The proposal aligns with this guideline.

Objective 6.8 Support the use of school buildings for community recreational and cultural activities.

Response: The proposed venue is not related to Portland Public Schools. This guideline is not applicable to the proposal.

Objective 6.9 Advocate increasing the amount of park land and recreational facilities in the neighborhood.

A. Build a regulation-sized, year-round, heated swimming pool in a location convenient to Buckman residents. (Parks)

B. Create a detailed open space and recreation plan. (BCA)

C. Create recreational areas and public open space including sports facilities, playgrounds, and community gardens within walking distance of homes. (Parks)

D. Create open play areas and garden space by closing streets to through traffic. (Parks, PDOT, HCD)

E. Investigate the feasibility of utilizing vacant public and private land for recreational activities. (BCA)

F. Build additional basketball courts at the Child Services Center. (School District)

G. Construct a pocket park across from Central Catholic High School at SE 24th, SE Oak and SE Stark Streets. (Parks, Private Sector, Central Catholic)

Response: The proposed project is not related to park land or recreational facilities in neighborhoods. This guideline is not applicable to the proposal.

Objective 6.10 Support improving facilities and programs at existing recreational sites and developing new recreational opportunities.

A. Upgrade Buckman pool, improve community access, and extend hours of use. (School District)

B. Offer year-round, supervised activities for children and adults in parks and community centers. (Parks)

C. Conduct day and evening, family-oriented activities at St. Francis and Colonel Summers Parks. (BCA, Parks, St. Francis)

D. Improve community gardens by providing more garden space, more assistance from Portland Parks Bureau staff, and by making physical improvements. (Parks, Community Gardens)

E. Improve lighting at sports fields, where the impact on residential areas can be minimized. (Parks)

F. Provide access for physically and mentally challenged people to all community facilities. (City, Private Sector)

Response: The proposed project does not involve any existing facilities but will provide an additional recreational option in the area. This guideline is not applicable to the proposal.

Objective 6.11 Promote Colonel Summers Park for appropriate recreational use by Buckman's diverse population.

A. Establish a community center, a caretaker house, a cafe and/or a concession stand in Colonel Summers Park. (Parks)

B. Improve and modify playground equipment at Colonel Summers Park to encourage and emphasize its use by small children. (Parks)

C. Post signs concerning operating hours and rules at Colonel Summers Park. (Parks)

D. Manage activities at Colonel Summers Park to reduce noise levels. (Parks)

E. Remove or modify the basketball court, e.g., lower hoops and half courts, at Colonel Summers Park to reduce or eliminate conflicts with nearby residents and other users of the park. (Parks)

Response: The proposed project is not related to Colonel Summers Park. This guideline is not applicable to the proposal.

Objective 6.12 Promote St. Francis Park for recreational use by Buckman residents.

A. Encourage families with children to use St. Francis Park. (BCA)

Response: The proposed project is not related to St. Francis Park. This guideline is not applicable to the proposal.

Objective 6.13 Encourage the development of Lone Fir Cemetery as a cultural, educational and recreational resource.

A. Improve maintenance, landscaping, passive recreational and educational activities, and security for Lone Fir Cemetery. (Mult. Co.)

Response: The proposed project is not related to the development of Lone Fir Cemetery. This guideline is not applicable to the proposal.

Objective 6.14 Improve access to the Eastbank Esplanade and develop it for recreational uses.

A. Provide easy access to the East Bank of the Willamette River from the Burnside to the Hawthorne Bridges. (PDOT)

B. Build walking, jogging, and bicycle pathways along the Willamette River. (PDOT)

C. Develop riverside facilities, e.g., cafes, picnic areas, boat rental, fishing dock, etc. (PDOT, Parks, Private Sector)

D. Build fenced, lighted, and metered basketball courts beneath freeways and overpasses adjacent to the East Bank Esplanade. (PDOT)

Response: The proposed venue will not change the existing access to the Eastbank Esplanade; however, the increased foot and bicycle traffic as a result of the project may jumpstart interest for further attention to these initiatives. The proposal aligns with this guideline.

Objective 6.15 Ensure that library services are accessible.

A. Investigate locating a computer terminal/library catalog facility in a central location. (Library)

B. Request regular visits by the bookmobile. (Library)

Response: The proposed project will not affect library service accessibility. This guideline is not applicable to the proposal.

Objective 6.16 Encourage visual, literary, and performing arts to thrive in Buckman.

A. Publicize events and activities that focus on artistic endeavors in the Buckman newsletter. (BCA, MAC)

B. Establish a music and/or arts festival in the Buckman neighborhood. (BCA, Private Sector)

Response: The proposed venue will host an assortment of concerts and events that may encompass visual, literary, and performing arts. The proposal aligns with this guideline.

Policy 7: Encourage and support businesses that enhance the neighborhood and provide needed good and services to local residents.

Objective 7.1 Promote appropriate development of Buckman's commercial areas.

A. Study and promote business redevelopment along Morrison and Belmont Streets east of 12th. (BBA)

B. Work with business groups to help marke opportunities for appropriate development (BCA, PDC)

C. Develop a "Main Street" program to improve the Belmont business area. (BBA)

D. Improve the business area along E Burnside Street, especially at SE 28th Avenue. (PDC, CEIC)

E. Consider the location of supportive commercial/retail operations adjacent to existing recreational facilities and sites. (Private, BBA)

Response: The site for the proposed venue is not along the streets specified above, but the addition of this venue will provide for new commercial opportunities in the Central Eastside Industrial District portion of the Buckman area. Additionally, the developer has been in communication with the Central Eastside Industrial Council's Land Use and Urban Development Committee to ensure this is a compatible project for the area. The proposal aligns with this guideline.

Objective 7.2 Encourage pedestrian-oriented commercial development.

Response: The proposed event venue fully encompasses this guideline as the project has been designed to include dedications and public improvements providing landscaping and hardscaping for pedestrians. The project includes initiatives aimed at promoting bicycle and foot traffic and limiting vehicular traffic as much as possible (see the TDM plan). The proposal aligns with this guideline.

Objective 7.3 Encourage proprietor ownership of business property.

Response: Though the proposed venue is not a proprietor owner it will support many of the small businesses in the area that are proprietor ownership and will likely also encourage new ones to open in the area. The proposal aligns with this guideline.

Objective 7.4 Encourage the formation of small, locally-owned businesses in Buckman.

A. Provide technical assistance to support the formation and growth of local businesses. (PDC)

Response: The presence of a large event venue within the Buckman neighborhood will bring economic vitality and interest to the neighborhood. Scheduled events will guarantee large numbers of visitors that will patron nearby stores, bars, and restaurants making the area especially attractive to local entrepreneurs. The proposal aligns with this guideline.

Objective 7.5 Foster better communication between business people and residents.

A. Encourage the formation of a coalition of Buckman business groups. (BCA, PDC)

B. Encourage business people to actively participate in business associations and the Buckman Community Association. (BCA, CEIC, BBA, HBBA)

C. Develop an annual awards committee for good-neighbor businesses. (BCA)

Response: As the proposed project has developed, community outreach has been an important part of the process. The Central Eastside Industrial Council – Land Use and Urban Development Committee has been involved and made aware, and the developer is active in that organization. The proposal aligns with this guideline.

Objective 7.6 Improve and maintain the physical appearance, including signage and other forms of visual communication, of commercial and industrial areas.

A. Provide more street trees in commercial areas. (BCA, FOT, BBA, HBBA, CEIC)

B. Identify and report sites where required landscaping is not being maintained. (Citizens, BCA)

C. Ensure that graffiti is promptly removed. (BCA, SEUL, Private)

D. Require automatic sprinkling systems and/or regular landscaping maintenance contracts for new parking lots. (BOP)

Response: The proposed venue seeks to improve the physical appearance of the area by developing a vacant lot into an attractive venue space. The building is designed in a way that preserves the aesthetic integrity of the Buckman Neighborhood as demonstrated in the attachments. The proposal aligns with this guideline.

Objective 7.7	Encourage development of the underutilized commercial property around SE 20th, Belmont, and Morrison with businesses that enhance the pedestrian environment and provide local services and goods.

Response: The proposed project fully encompasses this guideline by developing a vacant commercial lot near Morrison that enhances the pedestrian environment through thoughtful design. The proposed venue will provide entertainment for guests and will result in increased patronage to the surrounding local businesses. The proposal aligns with this guideline.

Objective 7.8	Discourage zone changes from residential to commercial unless qualifying under Objective 7.9.

Response: The proposed project does not seek to a zone change. This guideline is not applicable to the proposal.

Objective 7.9	On residentially-zoned sites with nonconforming commercial uses that are not in neighborhood or storefront commercial-type buildings, consider mixed-use residential/commercial development.

Response: The site is not residentially zoned. This guideline is not applicable to the proposal.

Objective 7.10	Encourage residential development on the upper floors of commercial buildings in the SE Ankeny and 27th area to provide a compatible transition between the residential and commercial.

Response: The site is not located in the SE Ankeny and 27th area. This guideline is not applicable to the proposal.

Objective 7.11	Encourage effective buffers, both physical and functional, between industrial/commercial and residential land uses to mitigate noise, traffic, unsightliness, and patron impact.
A.	When necessary and possible, restrict the hours of operation within commercial zones and on nonconforming commercial sites to reduce their impact on surrounding residences. (BOP)

Response: The proposed site is located in the commercial/industrial area in the Central Eastside Industrial District of the Buckman area and will not impact residential areas. Additionally, the proposed venue will adhere to operational hour guidelines. The proposal aligns with this guideline.

Objective 7.12 Support the Central City Plan's recommendations for the development of the Central Eastside Industrial District in Buckman.

A. Encourage the Grand Avenue property owners and businesses to develop an identity and character for it that reflects its designation as an historic resource. (Private, CEIC)

B. Support development of a "Farmers Market" in Buckman or other central city location. (BBA, CEIC)

Response: Though the proposed site is not along Grand Avenue and is not proposing a Farmer's Market, it is proposing a desirable development on a vacant lot which will likely spur further improvements and developments in the area.

Objective 7.13 Support the development of artisan's lofts in underutilized industrial/ warehouse buildings, when conflicts of use are not anticipated.

Response: This Objective does not apply to the proposal, but the proposed development will increase the aesthetic appeal of the area which may spur further development.

Buckman Neighborhood Design Guidelines

1. Traffic Control
The city should employ specific controls to reduce traffic volume and speed on local streets. New construction should be designed so as to minimize traffic impacts on local streets.

Response: The proposed project abuts local streets to the north and south of the site (Main and Salmon); however, these streets dead end under I-5 and connect to the Eastbank Esplanade. Impacts will therefore be minimal. The traffic impact study further describes traffic control measures.

2. Vehicular and Parking Access
Off-street parking should be provided at the side or rear of lots or within a garage. Off-street parking should be visually screened from adjacent residences and streets by sight-obscuring plantings.

Response: No vehicular parking is proposed. This guideline is not applicable to the proposal.

3. Sidewalks

a. When repairs are made in the vicinity of stamped sidewalk details and/or their stones, all intact details (including those with minor hairline cracks or flaws) should be preserved: street names, park names, dates and contractor names. This may necessitate the use of concrete saws and/or additional handwork.

b. When a stone with details is badly damaged or hazardous, and the details are intact, the original dates, streets and park names should be removed and reset in new concrete. Contractors' names should be reset when possible.

c. When stamped sidewalk details are damaged beyond repair or resetting, the sidewalk stone should be replaced and restamped with all original street and park names, and both the original and current date (year). Contractors' names should be restamped when possible.

d. Wheelchair ramps should be located to avoid stamped details at sidewalk intersections, whenever possible.

e. When curb repairs are made, original horse rings should be reset in place. When badly damaged or missing, they should be replaced.

f. Standardized historic plaques and signs marking buildings, streets, and the neighborhood itself are encouraged and should be consistent in design with City and Federal standards for historic places.

Response: No stamped sidewalks, horse rings, or historic plaques are proposed or will be affected by the project.

Street Landscape

1. Street Trees

Species should be consistent with the character, height, canopy and spacing of a street's original plantings, the width of the parking strip, and the scale and function of the street within the neighborhood. All prudent measures should be taken by the City, utility companies and property owners to preserve original street trees. Sidewalk repairs and other excavation or construction near trees should avoid cutting tree roots. Programs should be developed to add street trees in areas which are lacking in trees.

Response: The site currently includes no existing street trees. The project includes plans to plant 11 new street trees which will follow City street tree requirements and guidelines. The proposal aligns with this guideline.

2. Parking Strips

Parking strips should be planted with designated street trees, grass or other appropriate plants. Parking strips are not to be used for parking areas or for street and sidewalk widening.

Response: The frontage improvements will be designed to current PBOT standards.

Open Space

1. Private Open Space—Front Yards

Original grade should be retained; berms and excavations are discouraged.

Response: This is not applicable to the proposed site or project.

2. Vacant Lots

Owners of vacant property are encouraged to provide attractive landscaping with native, low-maintenance plantings.

Response: The proposed project will not be a vacant lot. This guideline is not applicable to the proposal.

GUIDELINES OF GENERAL APPLICABILITY

1. Fences and Retaining Walls
Front and side yards which abut a street should be visually open to the street. Hedges, retaining walls and fences which visually obscure front yards are discouraged. Fences should be kept behind the building lines, as viewed from the street. Fences should be low to provide visual communication between yards for both security and neighborliness. Shared yards are encouraged. Chain link, barbed wire or metal, concrete block, plastic, fiberglass or plywood fences are especially discouraged. Unfaced concrete or concrete block are not appropriate for retaining walls.

Response: No fences or retaining walls are proposed as part of this project.

2. Crime Prevention
Crime prevention elements should be included in the design, with specific attention to landscaping, parking areas, walkways, lighting, entries and visibility. Windows and entries should not be obscured. Parking areas, walkways, and entries should be adequately illuminated for visibility.

Response: The proposal includes landscaping, walkways, lighting, and unobscured entries. The proposed design aims to prevent crime.

COMMERCIAL CONSTRUCTION & RENOVATION

1. Siting
Commercial buildings should be pedestrian oriented and have a zero front yard setback. In rehabilitating existing buildings, the architectural integrity of facades oriented to a street should be maintained. Additions and structural alterations should adopt the character of the existing building or be minimally visible from the street. The original topography and grade of building sites should be maintained.

Response: The proposed commercial building is pedestrian oriented with no front yard setback. Facades oriented toward the street will be well maintained.

2. Building Height
New buildings in commercial zones should not exceed three stories, or forty-five feet in height. (East of SE 12th Avenue)

Response: The proposed project is not East of SE 12th Avenue. This guideline is not applicable to the proposal.

3. Foundations
Commercial buildings should have foundations which are within six inches of the sidewalk elevation. Changes to a foundation should match or be compatible with the original foundation in height and materials.

Response: The proposed new building will have foundation within 6" of the sidewalk as shown in the elevations.

4. Exterior Siding Material
For commercial and large multi-family structures, stucco, brick or horizontal wood siding are recommended. Restoration and maintenance of original exterior materials is encouraged. Materials used on additions should match or be compatible with the predominant materials used on the original structure.

Response: The proposed venue is designed to be compatible with the existing aesthetic of neighboring buildings using similar materials such as cast in place concrete and CMU block. The proposal aligns with this guideline.

5. Roof Form
Commercial buildings should have flat roofs with parapets or false fronts. Detailing of the parapets with cornices and stepping is encouraged. Original structural and decorative features should be retained. Whenever possible, the original type, size, color and pattern of roofing materials should be used. Skylights, solar, mechanical and service equipment should be inconspicuous when viewed from the street.

Response: The proposed new building will have parapets and architectural features and angles. Mechanical equipment will be screened from the street.

6. Building Additions
Building additions should be in keeping with the original architectural character, color, mass, scale, and materials of a building. Additions should be designed to have the least impact upon character-defining features of a building.

Response: The proposed project does not include any building additions. This guideline is not applicable to the proposal.

7. Development Impacts
All new development should be designed and operated to minimize potential adverse impacts upon surrounding residences and to reduce conflicts with residential uses. Factors to be considered are traffic generation, deliveries, parking, noise, lighting, crime prevention, hours of operation and activity, visual effects and buffering.

Response: As the site is located in the Central Eastside Industrial District, there will be no effect on the residential portions of the Buckman neighborhood. Additionally, as discussed elsewhere in this narrative, the proposed project has addressed factors such as lighting, crime, hours of operation, traffic generation, and visual effects. The proposal aligns with this guideline.

8. Windows and Doors
Storefront windows with large fixed panes below and smaller panes above are encouraged. Blank facades with no windows are discouraged. Restoration of commercial storefront windows and facades is especially encouraged.

Response: Glazing and pedestrian-scale design are proposed on the first floor, particularly at the main entrances. The proposal aligns with this guideline.

9. Awnings
Retractable fabric awnings which are architecturally compatible with historic commercial structures are encouraged. Awnings should fit within window bays. Existing, traditional awnings should be rehabilitated.

Response: There are no fabric awnings proposed for this project.

10. Front Facade Detailing
Original entrances to buildings and detailing should be retained. New construction should include design elements compatible with original structures.

Response: The proposed venue includes design elements compatible with neighboring structures. The proposal aligns with this guideline.

11. Color
Restoration of original colors, or colors appropriate to the style and era of the building, is encouraged.

Response: This proposal is for a new development. This guideline does not apply; however the building has been designed to fit the style of the surrounding area.

12. Signs
Whenever possible, retention or restoration of original pre-1940 signs is encouraged. Wall signs, window signs, canopy and projecting signs attached to the building are encouraged; free-standing signs are discouraged. Sign materials and design and letters appropriate to pre-1940, such as painted wood and neon, are encouraged. Plastic sign faces are discouraged. Signs should not be the dominant feature of a building or site.

Response: There are no existing signs at the site and no additional signs are proposed at this time. This guideline is not applicable to the proposal.

13. Parking
On-site parking should be located at the rear of the building. Parking areas should be screened from adjacent properties; hedges and canopy trees are recommended as screens.

Response: There is no proposed parking as part of this proposal.

14. Amenities
The provision of amenities such as flower baskets and planters, appropriate sidewalk furniture (where space permits), and community bulletin boards is encouraged.

Response: The proposal includes hanging stormwater planters, living wall features, new street trees.

Central City 2035 Plan

Central City Policies: Regional Center

Civic and Cultural Center

POLICY 1.1 *Regional image. Strengthen the roles of the Central City and Willamette River in enhancing a positive image for the city, region and state.*

Response: The proposed venue will bring additional people to the neighborhood for shows. Those people will patron nearby bars and restaurants. This new livelihood and economic influx will enhance the area and reduce crime and illegal camping. It will likely draw new and improved development to the area.

POLICY 1.2 *Center of higher education. Support the ability of major universities and other higher education institutions to strengthen the Central City as a center of learning, business and innovation.*

Response: The proposed event venue could potentially be used as a space that hosts events which support learning, business, and innovation. The proposal aligns with this guideline.

POLICY 1.3 *Center of urban innovation. Strengthen the role and stature of the Central City as a laboratory and showcase for innovative urban development and as a regional leader in the development of businesses related to clean technology, green practices and design, and resource conservation.*

Response: The proposed building's innovative design will function as an example of leadership in green practices, design, and resource conservation, and may serve as a foundation for similar buildings or projects in the Central City. The proposal aligns with this guideline.

POLICY 1.4 *Tourism, retail and entertainment. Expand upon activities in the Central City that support tourism and complement economic success, vibrancy, and livability, with a special focus on retail, cultural events and institutions, public spaces, arts and entertainment, urban design, and transportation. See district policies section for related policies in: DT, WE, GH, PL, OT, LD, CE, SW, UD*

Response: The proposed event venue will host a variety of events enhancing the availability of cultural events as well as arts and entertainment for the community. The proposal aligns with this guideline.

POLICY 1.5 *Destination Willamette River. Enhance the riverfront as a destination by encouraging shops; restaurants; art; cultural, historic, ecological and maritime attractions; and recreation. Support opportunities and amenities for river tours, river transit and regional cruises to and from the riverfront.*

Response: The proposed venue may be the catalyst for more revitalization along the riverfront with its capacity to bring in thousands of visitors and increased economic opportunity to surrounding local businesses. The proposal aligns with this guideline.

Economic Vitality

POLICY 1.6 *Traded sector growth. Enhance business development efforts and assistance for targeted industry clusters and high growth sector companies.*

Response: The proposed development doesn't directly relate to this policy but the improved aesthetics and better use of the area with attractive buildings and neighborhood amenities can make for a more attractive area for a business to locate in.

POLICY 1.7 *Entrepreneurship and business innovation. Strengthen the Central City as a location for job creation by addressing development issues that affect businesses and supporting economic development strategies and programs that facilitate economic growth in the Central City.*

Response: The proposed venue and its construction will provide jobs and the project will facilitate economic growth as discussed many times in this narrative, by bringing additional patrons, foot traffic, employees, and potentially new businesses to the area. The proposal aligns with this guideline.

POLICY 1.8 *Innovation Quadrant. Capitalize upon the physical connections created by the Tilikum Crossing to connect Central Eastside industries with westside institutional assets such as Oregon Health Science University (OHSU) and Portland State University (PSU). Facilitate the growth of traditional and emerging industries in service to the Innovation Quadrant and encourage venues such as the Oregon Museum of Science and Industry (OMSI) to showcase the diversity of research, economic development, and educational activities occurring within the quadrant. Encourage a range of businesses from start-up firms to corporate headquarters, with particular focus on knowledge-based industries such as technology and research and development, to locate in the area (see Regional Center map on page 34).*

Response: The inclusion of the proposed event venue in this area will further diversify what this section of the city has to offer. With its innovative and attractive design as well as the events it will offer to the community, the proposed space will likely bring in additional visitors including students from OHSU and PSU to the Central Eastside. The proposal aligns with this guideline.

POLICY 1.9 *Equity and the economy. Support greater access to and expansion of economic opportunities in the Central City for all groups facing longstanding disparities, including education, housing and employment so that they can achieve an equitable allocation of the benefits of development and economic prosperity. Accomplish this through land use tools (e.g., FAR bonuses and transfers) and/ or other programs.*

POLICY 1.10 *Next generation industrial/employment sanctuaries. Foster the long-term success of Central City industrial districts and the continuation of these areas as prime locations for investment and new industrial businesses, while supporting their evolution into places with a broader mix of businesses, living-wage jobs, and higher employment densities. See district policies section for related policies in: LA, CE*

POLICY 1.11 *Commercial affordability. Support efforts to make the Central City a competitive location for development and business location and operation.*

Response: As previously stated, the proposed event venue will increase the business and real estate attraction for the Central City. The proposal aligns with this guideline.

POLICY 1.12 *Day laborer organization and education. Continue efforts and initiatives within the Central City that organize and centralize day laborer services that can provide for worker rights education, outreach, and protect the rights of laborers.*

POLICY 1.13 *Surface parking. Support strategies and tools to encourage the redevelopment of surface parking lots. Discourage the development of new surface parking and ensure buildings will not be demolished to provide surface parking. See district policies section for related policies in: WE, GH, OT*

POLICY 1.14 *Flexible building design. Encourage flexible building design and construction, including structured parking, that allows buildings to be repurposed and accommodate a variety of uses in the future.*

Response: There is no structured parking included in this proposal and no buildings being repurposed. This guideline does not apply.

Central Eastside

POLICY 1.CE-1 Next generation industrial/employment sanctuaries.

a. *Industrial center. Protect the Central Eastside as a centralized hub of industrial businesses and services that support the regional economy by serving other industrial districts and businesses located throughout the Portland metropolitan area.*

b. *Industrial diversification. Support growth of new industrial sectors, protect existing sectors, and protect the Central Eastside as a place where startups and incubators can transition to mature and established businesses and sectors.*

Response: The proposed project will further the growth of a diversified industrial sector by serving as an attraction for existing and new business. The proposal aligns with this guideline.

POLICY 1.CE-2 Employment supportive mixed-use corridors. Enhance the vibrancy of major mixed-use corridors to optimize their potential to attract investment and the development of new retail, commercial office, and residential uses that complement and serve employees and businesses in the Central Eastside.

Response: As stated previously, the proposed event venue will strengthen the vibrancy of the Central Eastside and serve as an attraction for surrounding businesses and future investment. The proposal aligns with this guideline.

POLICY 1.CE-3 Southern triangle. Encourage redevelopment of large sites to include employment opportunities such as industrial office and headquarters office opportunities, and invest in new infrastructure to address transportation constraints.

a. Clinton Station Area. Facilitate the development of employment and residential, as well as neighborhood serving retail and community services that serve the Central Eastside and inner Southeast Portland neighborhoods.

Response: The proposed site is not in the Clinton Station area. This guideline does not apply.

b. OMSI Station Area. Create a major and active riverfront station area that includes land and water based transportation, as well as educational and recreational opportunities. Promote visitor-serving attractions, amenities, and retail, as well as a mix of high-density commercial office, institutional and industrial employment uses.

Response: The proposed project offers no changes to the riverfront station; however the proposed venue is likely to spur interest and present opportunity to revitalizing the station.

POLICY 1.CE-4 Workforce development institutions. Support institutions such as Benson High School, Portland Community College's CLIMB Center, OMSI, and others in their unique roles associated with workforce development through programs and partnerships that prepare Portlanders at different education and skill levels for employment in Central Eastside industries.

Response: The proposed event venue will offer jobs that will be available to workers with no education or experience as well as highly skilled workers with specialized degrees. With its close location to community organizations, it is likely that the proposed venue will provide many opportunities for Portlanders seeking workforce development. The proposal aligns with this guideline.

POLICY 1.CE-5 Tourism, retail and entertainment. Support river and riverfront uses and activities along the Eastbank Esplanade and near OMSI including active and passive recreation, ecological and maritime tourism, retail kiosks, restaurants and river transportation.

Response: Tourism and entertainment are foundational to the proposed event venue. As the site is adjacent to the riverfront, the Eastbank Esplanade will likely see more foot and bike traffic. The proposal aligns with this guideline.

Central City Policies: Housing and Neighborhoods

Response: This section was not included as the site is not located in or near a residential area.

Central City Policies: Transportation

Regional Hub

POLICY 3.1 Regional transportation hub. Strengthen the Central City as the highly accessible and multimodal hub for moving people and goods, reinforcing its regional center roles, enabling successful high density employment and housing development, and thereby affirming its role in Metro's Region 2040 Framework Plan.

Response: The proposal will increase the density of employment and the use of the area's existing multimodal transportation. The proposal aligns with this guideline.

POLICY 3.2 Portals. Manage entry points into the Central City to provide balanced multimodal access to efficiently accommodate the increase in person trips and goods delivery as a result of growth and development. Discourage through trips from using Central City streets.

Response: The proposal will come with a built-in balance of person trips in multi-modal transportation and goods delivery. The proposal aligns with this guideline.

Street Network

POLICY 3.3 Optimized street network. Improve street design and function to increase efficiency and safety for all transportation modes and the ability of the existing network to meet the access needs of businesses, shoppers, residents and visitors. Establish a system and standards that emphasize walking, bicycling, transit use and freight access while continuing to provide automobile access. See District Policies section for related policies in: DT, WE, GH, PL, OT, LA, LD, CE, SW, UD

Response: As described previously in this narrative, the proposed project fully embodies this guideline by better utilizing existing street and parking infrastructure and ensuring the area will be able to support increased foot traffic the proposed event venue would bring. The proposal aligns with this guideline.

POLICY 3.4 Transportation system management. Manage access and circulation to reduce traffic speeds and provide for safe street crossings, while balancing the need for vehicle and freight access to and from the district. Manage the roadway system within the Central City in a way that allows greater levels of traffic congestion. In congested areas, prioritize modes other than automobiles to accommodate travel demand.

Response: Transportation system management is built into the foundation of the proposed project. Bicycle and foot traffic are encouraged to prevent the area from becoming congested. No changes are proposed for freight access. The proposal aligns with this guideline.

POLICY 3.5 *Regional multimodal access. Work with the Oregon Department of Transportation on improvements to 1-405, 1-5 and US Highway 26 to enhance regional access to the Central City. Minimize through traffic on Central City streets, improve pedestrian and bicycle connectivity across freeways and create opportunities for capping freeways to lessen the barrier effect of the freeway and open new areas for potential development and/or parks, open space, and recreational opportunities.*

Response: This proposal is for the redevelopment of a partial block. Access to highways or other transportation facilities will not be affected; however, as described in the TIS, the project can be accommodated without problematic impacts to the system.

POLICY 3.6 *Mode split. Strive to achieve the Central City targets set in the most current Transportation System Plan.*

Response: The TIS was prepared addressing the current TSP.

POLICY 3.7 *Street diversity. Differentiate the character of key streets to offer a diversity of urban experiences and connections, reflect the character of unique districts and expand open space and recreation functions in the right-of-way where possible.*

Response: The frontage improvements will be designed to meet the current TSP standard.

POLICY 3.8 *Streetscape. Improve the street environment and pedestrian experience by providing urban greenery and community uses of the right-of-way and by integrating high-density uses.*

Response: The proposed project includes the planting of 11 new street trees, living walls, storm planters, and an ecoroof making for a more attractive pedestrian experience. The proposal aligns with this guideline.

Active transportation, Transit and Demand Management

POLICY 3.9 *Walking. Encourage walking as the principal way to get around the Central City, with improved on-street and off-street infrastructure that enhances safety and closes access gaps to areas within, and adjacent to, the Central City.*

Response: The project proposes no new automobile parking and active right-of-way uses in an effort to encourage foot traffic as the main avenue to attending events. The adjacent streetscape will be improved with a widened sidewalk which is associated with increased safety. The proposal aligns with this guideline.

POLICY 3.10 *Bicycling. Prioritize bicycling by implementing world-class on-street and off-street infrastructure that is safe, comfortable and convenient for people of all ages and abilities. Augment capital improvements with robust encouragement, education and enforcement efforts.*

Response: The proposed event venue includes innovative initiatives to make better use of existing street infrastructure to encourage bicycle traffic. The proposal aligns with this guideline.

POLICY 3.11 *Transit. Continue to strengthen the regional role of transit in the Central City. Support increased frequency, span-of-service, reliability and safety, as well as expansion of the rail, bus and streetcar systems. Explore river transit opportunities. Facilitate safe, pleasant and efficient access and transfer opportunities for transit riders via a clear, intuitive and convenient transit network that consolidates fragmented routes and provides high standards of transit amenities.*

Response: The proposed project is not transit related; however, it will likely generate interest in these goals especially along the Eastbank Esplanade of the river.

POLICY 3.12 Transportation demand management. Foster the development of business and property owner supported programs, incentives and activities that encourage employees, residents, students and visitors to use walking, cycling, transit, carpool and car-share, as well as telecommuting and traveling outside the hours of peak congestion.

Response: As mentioned previously in this narrative, the proposed project includes initiatives that will address transportation demand management and encourage event patrons to utilize alternative transportation methods.

Parking and loading

POLICY 3.13 Auto parking. Support Central City parking needs, particularly for retail, employment and residential growth, as well as for access to major attractions such as universities and event venues. Continue to limit the growth of the overall auto parking supply, and maximize the joint use of existing and new stalls to manage parking in a more efficient and dynamic manner, lower the costs of construction and meet mode split and climate action goals for the city. Maintain no auto parking minimum requirements in the Central City and set maximum auto parking ratios to encourage other modes and allow new long-term parking only if associated with new development or to serve buildings with little parking.

Response: The proposed project proposes no additional parking supply and better utilized existing parking infrastructure in the surrounding area. The proposal aligns with this guideline.

POLICY 3.14 Bicycle parking. Encourage the provision of bicycle parking to serve the expected increase in bicycle trips in the Central City.

Response: Long-term bicycle parking will be provided for employees and the project will pay into the short-term bike parking fun and work with PBOT to provide bicycle parking spaces in the SE Salmon Street ROW. These are included in the proposed project to address the increase in expected bicycle trips during events. The proposal aligns with this guideline.

POLICY 3.15 Public Parking. Continue to manage public parking on the street system and in public garages to support Central City parking needs, prioritizing short trips and turnover to serve retail and visitor needs. Develop a performance-based parking program that manages Central City public parking to meet performance targets via dynamic pricing and other parking management tools and by providing clear and transparent parking information. Balance the need for on street parking with other uses of the curb zone. In managing the supply of on-street parking, the first priority is for short-term parking, followed by carpool and finally long-term parking.

Response: This proposal will not affect PBOT's management of on-street parking, but as described in the TIS, the existing on-street parking will not be negatively impacted.

POLICY 3.16 Loading. Support the delivery of goods in the Central City. Pursue strategies that bring new ways of delivering goods to the Central City in a way that optimizes loading and freight access and makes efficient use of limited urban space.

Response: Loading is proposed partially in the right-of-way to maximize the limited space, as is often done in the Central Eastside Industrial District. The proposal aligns with this guideline.

Central Eastside

POLICY 3.CE-1 Optimized street network. Improve connectivity to and throughout the district for all modes by creating safe, accessible and convenient routes with improved signalization and

clear signage to link landward portions of the district with major attractors and the riverfront.

Response: No changes are proposed to the street network, but the project will encourage use of all modes of transportation and encourage connectivity to and around the venue.

POLICY 3.CE-2 Freight system. Enhance freight movement in and through the district and maintain and improve access to and from the district and regional freeway system.

Response: Freight access will not be affected the proposed event venue. This guideline is not applicable to the proposal.

POLICY 3.CE-3 Green Streets. Strategically support the enhancement of east-west city walkways and bikeways to serve the multiple objectives of travel, stormwater management, open space and recreation, and placemaking. Routes should also strengthen connections to the river and riverfront. Green Streets should be chosen to avoid significantly impacting freight movement as identified by Transportation System Plan freight designations.

Response: No changes are proposed to the street types, but the project will encourage use of all modes of transportation and encourage connectivity to and around the venue.

POLICY 3.CE-4 Reduce trail conflicts. Reduce bicycle and pedestrian conflicts on the Eastbank Esplanade and the Greenway Trail through design modifications like separating bicycle and pedestrian facilities, education, signage and other means.

Response: No changes are proposed to the Greenway Trail. This guideline is not applicable to the proposal.

Central Policies: Willamette River

Multifunctional river

POLICY 4.1 Portland's commons. Promote improvements and activities on the riverfront and in the Willamette River to strengthen the physical, visual, and cultural connections between the river and the rest of the Central City. Increase public awareness of the river's historical, economic and ecological importance.

Response: The proposed event venue will bring interest to the Eastbank Esplanade which may initiate progress on these initiatives. The proposal aligns with this guideline.

POLICY 4.2 Willamette River recreation. Provide for safe, enjoyable and valuable active and passive recreational experiences for all users on, along and in the river. Enhance the interconnected system of parks, trails, docks, natural areas and destinations adjacent to and within the river.

Response: The proposed event venue will diversify the existing entertainment options along the river and be accessible to a wide range of people. The proposal aligns with this guideline.

POLICY 4.3 Prosperous and vibrant Willamette River waterfront. Support river-dependent, river-related and other uses that capitalize on the river and riverfront locations, expand tourism and commercial uses, and reinforce the distinctive character of the different riverfront districts.

Response: The proposed event venue will bring interest toward the riverfront area which may initiate progress on these initiatives. The proposal aligns with this guideline.

POLICY 4.4 *Willamette River transportation. Improve infrastructure that supports commercial, river transit, individual watercraft, tourist and recreational boating uses. Ensure that new river transportation terminals and docks are connected by streets and trails that provide direct access to transit from points throughout the Central City.*

Response: The proposed project does not include river transportation; however, with its location near the Eastbank Esplanade, the area may see interest in taking action on these initiatives.

POLICY 4.5 *Connections to the Willamette River. Increase the community's enjoyment of and direct experience with the Willamette River. Improve physical and visual connections between the districts and the Willamette River.*

Response: The proposed project does not abut the river or make any changes to connections to the river. This guideline is not applicable to the proposal.

POLICY 4.6 *Watershed health and native species recovery.*

a. Watershed Health. Improve the quality, quantity, connectivity and overall function of the ecological system including upland, riparian and in-water habitat to protect public health and support the conservation and restoration of native fish and wildlife populations.

Response: The proposed project implements as much green design as possible to decrease stormwater runoff and sustain watershed health. The proposal aligns with this guideline.

b. Threatened, endangered and at risk species. Restore in-water, riparian and floodplain habitat that supports fish and wildlife populations at risk of becoming or are currently threatened or endangered.

Response: The proposed project has no effect on threatened, endangered, or at-risk species. This guideline is not applicable to the proposal.

c. Floodplains. Improve the ability of floodplains to store water, reduce risks on the public and provide habitat functions.

Response: The site is not within a floodplain. This guideline is not applicable to the proposal.

d. Stormwater Management. Reduce stormwater entering into the separated sewer system.

Response: A stormwater planter, an ecoroof, living walls, and street trees are included in the proposed project to improve stormwater management. The proposal aligns with this guideline.

e. Riverbank enhancement targets. Strive to meet Central City targets related to riverbank enhancement and restoration.

See district policies section for related policies in: DT, PL, OT, LD, CE, SW, UD

Response: The proposed project proposes no changes to the riverbank. This guideline is not applicable to the proposal.

River-oriented development

POLICY 4.7 Periodic flooding. Minimize the risk to new and existing development and infrastructure from flood events, while also maintaining and enhancing ecological functions associated with the river and floodplain.

Response: The site does not abut the river. This guideline is not applicable to the proposal.

POLICY 4.8 Relationship to the river. Encourage development adjacent to the Willamette River to orient buildings towards the river, at appropriate setback distances. Add entrances, visual and physical connections, art installments and other amenities in order to create a relationship between the built environment and activities along the river.

Response: The site does not abut the river. This guideline is not applicable to the proposal.

POLICY 4.9 Commercial development. Encourage new clusters of commercial uses adjacent to the Willamette River, at appropriate setback distances, in order to bring more people, events and activities to the riverfront.

Response: The site does not abut the river. This guideline is not applicable to the proposal.

POLICY 4.10 Bridgehead redevelopment. Support the redevelopment of bridgehead sites to create dynamic places that bring a diversity of residents, workers and visitors to the riverfront and link east- and west-side districts of the Central City.

Response: The site does not abut the river. This guideline is not applicable to the proposal.

POLICY 4.11 Low impact development. Incorporate low-impact design in new and replacement docks and require appropriate setback distances for new development near the river.

Response: The proposed project does not include development of docks. This guideline is not applicable to the proposal.

Central Eastside

POLICY 4.CE-1 River economy. Leverage the Willamette River as an important component of the Central Eastside's local economy by supporting river-dependent and river-related commercial and mixed uses that bring more people to and on the river.

Response: With the ability to bring in thousands of visitors per year, the proposed event could revive an interest in river-dependent uses with its location next to the Eastbank Esplanade.

POLICY 4.CE-2 Southeast riverfront. Improve the physical relationship between buildings, activities and the Willamette River. Utilize building design, active ground floors facing the river, new uses, open areas and connections that encourage people's enjoyment of the river in both public and private spaces.

Response: The site does not abut the river. This guideline is not applicable to the proposal.

POLICY 4.CE-3 Watershed health and native species recovery. Enhance in-water and riparian habitat from the Burnside Bridge to the Ross Island Bridge by replacing invasive and non-native plants with native plants and trees and creating complexity in shallow water areas. Restore in-water, riparian and upland habitat and increase flood capacity at the Eastbank Crescent.

Response: The proposed project offers no changes to watershed health and native species recovery. This guideline is not applicable to the proposal.

Central City Policies: Urban Design

Context and Form

POLICY 5.1 *Experimentation and innovation. Support the design of new places and uses, both permanent and temporary that promote innovation, experimentation and exchange in the Central City.*

Response: The proposal is for an event venue which will support creative artists and small events, encouraging creativity and vitality in the Central City.

POLICY 5.2 *Central, connected Willamette River. Create a network of open space and tree canopy corridors to make ecological and design connections to the river.*

Response: The project includes the widening of sidewalks, planting of 11 street trees around the lot, stormwater planters, living walls, and an ecoroof to make for a more open and welcoming green environment. The proposal aligns with this guideline.

POLICY 5.3 *Dynamic skyline. Encourage the tallest buildings to locate adjacent to transit hubs and corridors, generally stepping down in height to the Willamette River. Allow taller buildings at bridgeheads and encourage contextually sensitive heights within historic districts. Encourage heights and building forms that preserve sunlight on public open spaces and parks.*

Response: The proposed building will have a sloped roof that aligns with the current typical four stories of the surrounding buildings. The proposal aligns with this guideline.

POLICY 5.4 *Scenic Resources. Protect public views of key landmarks and scenic resources (Vista Bridge, Union Station, Mt. Hood, Willamette River bridges) which define the Central City, help with wayfinding, and connect residents, employees and visitors to Portland's varied and unique landscape.*

Response: The proposed event venue will not impede any scenic resources. The proposal aligns with this guideline.

POLICY 5.5 *Large site development. Encourage redevelopment of large sites that includes new compatible uses, green buildings and equity considerations, scenic resource preservation, new pedestrian connections through the site, strong street presence, green infrastructure, and new open space amenities.*

Response: The site is a vacant lot and the proposed project is a compatible use for a rectangular site along SE Water Avenue. The design has taken into account green building standards, equity, scenic resource preservation, pedestrian environment, green infrastructure, and new open space amenities as discussed previously in this narrative. The proposal aligns with this guideline.

POLICY 5.6 *Distinct and vibrant districts. Enhance the existing character and diversity of the Central City and its districts, strengthening existing places and fostering the creation of new urban places and experiences.*

Response: The proposed event venue will be a valuable new urban place and experience for the Central City. With the thoughtfully designed exterior components, the proposed building will enhance the existing character of the Central City while also bringing a modern feel. The proposal aligns with this guideline.

POLICY 5.7 Neighborhood transitions. Establish transitions between the Central City's denser, taller and more commercial and industrial land uses and adjacent neighborhoods, while highlighting key gateway locations.

Response: The site does not abut a residential neighborhood. This guideline is not applicable to the proposal.

Connected Public Realm

POLICY 5.8 Public realm. Enhance the character and function of the public realm through design standards, guidelines, amenities and land uses that activate the pedestrian environment and encourage community gathering.

Response: With the inclusion of widened sidewalks and green elements the proposed project has prioritized the pedestrian landscape to the fullest extent possible. The proposal aligns with this guideline.

POLICY 5.9 Wayfinding. Develop wayfinding strategies and tools that allow residents, employees, visitors and customers to navigate the Central City and locate key attractions, businesses, institutions, the riverfront and other destinations in a safe, intuitive and enjoyable manner.

Response: No changes are proposed to public wayfinding, but the venue will be a clear landmark and attraction and visible from nearby blocks and the riverfront. The proposal aligns with this guideline.

POLICY 5.10 Street hierarchy and development character. Establish a more intentional street hierarchy with a greater diversity of street characters, distinguishing three main types: retail/commercial, boulevard and flexible.

Response: No changes are proposed to the street hierarchy. This guideline is not applicable to the proposal.

POLICY 5.11 Regional corridors and connections. Promote the presence, character and role of physical and visual corridors such as trails, transit lines, streets and scenic corridors, helping to bridge neighborhoods across physical and psychological barriers.

Response: No changes are proposed to regional corridors and connections. This guideline is not applicable to the proposal.

POLICY 5.12 "Green Loop" concept. Create a "Green Loop" that connects east and west side neighborhoods to open spaces and the Willamette River, with high quality bicycle accommodations, tree canopy, innovative, park-like pedestrian environments, and wildlife habitat connections. Enhance connections to the "Green Loop" alignment on key corridors throughout the Central City to improve access, create activity nodes and support neighborhood attractions and economic development.

Response: The proposal includes a green-infused building and new street trees improving the pedestrian environment and wildlife habitat options. The proposal aligns with this guideline.

POLICY 5.13 MAX-Portland Streetcar interchanges. Create supportive environments for transit connections that occur where MAX light rail lines cross Portland Streetcar lines in the West End, Lloyd and the Central Eastside.

Response: The site is not near the MAX or Portland Streetcar lines. This guideline is not applicable to the proposal.

POLICY 5.14 Streetcar lines. Require active uses near Portland Streetcar stations and limit auto-oriented development.

Response: The site is not near the Portland Streetcar lines. This guideline is not applicable to the proposal.

POLICY 5.15 Limit auto-oriented development. Prohibit drive-throughs with new development.
Response: The proposed project limits vehicular traffic as much as possible with no drive-throughs. The proposal aligns with this guideline.

Parks and Open Space

The project does not involve any parks. These guidelines are not applicable to the proposal.

Historic Preservation

The project does not involve any historic elements. These guidelines are not applicable to the proposal.

Central Eastside

POLICY 5.CE-1 East Portland Grand Avenue Historic District. Promote the rehabilitation of historic buildings and sensitive infill development in the Grand Avenue Historic District through updated design guidelines and regulations that incent rehabilitation and reuse over demolition. Encourage adaptive reuse of existing structures.
Response: The site is not in the East Portland Grand Avenue Historic District. This guideline is not applicable to the proposal.

POLICY 5.CE-2 OMSI Station area. Create an urban form at the OMSI Station area that facilitates public access from the streetcar and light rail stations to the greenway trail and riverfront, PCC, OMSI, Portland Opera, Portland Spirit, the Oregon Rail Heritage Foundation sites, through public realm enhancements and ground floor active uses that create a safe and vibrant environment.
Response: The site is not at the OMSI Station area. This guideline is not applicable to the proposal.

POLICY 5.CE-3 Clinton Station area. Establish an urban form at the Clinton Station area that creates a safe and active environment by incorporating a mix of uses that serve transit riders as well as residents and employees of the station area, Central Eastside, and inner Southeast Portland neighborhoods.
Response: The site is not at the Clinton Station area. This guideline is not applicable to the proposal.

POLICY 5.CE-4 Urban form on large blocks. Use building massing and orientation, accessways, and open spaces in the development of large blocks and sites to establish an urban form and block configuration consistent with the rest of the Central Eastside.
Response: The proposal is for the redevelopment of a vacant partial block and includes a large building, built near the lot lines, which will establish a strong sense of urban form and emphasize the block configuration. The proposal aligns with this guideline.

POLICY 5.CE-5 Open space network. Increase public parks, open space, and recreation opportunities in the district, especially in areas zoned for high density, mixed-use development. Broaden the number and range of available recreation opportunities.
Response: The proposed event venue will increase the availability of entertainment recreation. The proposal aligns with this guideline.

POLICY 5.CE-6 Street hierarchy and development character. Support the retail/commercial character of East Burnside, NE Sandy, SE Grand, SE Division, SE Hawthorne and SE Morrison; the boulevard character of SE Stark, NE Couch, SE 11th and SE 12th; and the flexible character of SE Ankeny, SE Salmon, SE Clay, SE 7th and SE Caruthers. Create transitions between industrial and mixed use areas.

Response: The site is in any of these areas and is in the center/toward the inner (river) edge of an industrial area, not near a transition with a mixed use area. This guideline is not applicable to the proposal.

POLICY 5.CE-7 Historic resources and districts.

a. Industrial character. Promote the historic industrial character of the Central Eastside through the preservation and enhancement of historic buildings and infrastructure that reflect past uses and architectural styles while serving existing and emerging industrial employment uses.

Response: The proposed project does not include any changes to existing historic buildings and infrastructure; however, the development that is proposed is designed with the historical integrity of the area as its foundation. The proposal aligns with this guideline.

b. Historic main streets. Enhance the character and visibility of historic streets throughout the district such as SE Morrison Street, including areas under viaducts, through public realm improvements and building rehabilitations that acknowledge these streets' historic role in shaping the district, while elevating their current status as important streets for commerce and employment.

Response: The site is on a historic main street. This guideline is not applicable to the proposal.

Central City Policies: Health and Environment

Resilience

POLICY 6.1 Natural hazard resilience. Encourage planning, design and education in the Central City to help prevent or minimize the impacts of natural hazards such as earthquakes, floods and other hazards identified in the citywide Natural Hazard Mitigation Plan.

a. New development. Encourage approaches to reduce future natural hazard risks and impacts when planning for or evaluating the location and design of new development.

b. Retrofitting. Encourage the retrofitting of buildings and infrastructure to withstand natural hazards. Prioritize the seismic retrofitting of unreinforced masonry buildings while preserving their architectural character. Support Multnomah County's efforts to seismically retrofit Central City bridges, recognizing the Burnside Bridge as the regionally-designated priority.

c. Preparedness. Support Central City residents' and businesses' efforts to prepare for natural hazards. Ensure the Central City's most vulnerable populations are included in these efforts.

d. Code review. Monitor relevant codes to incorporate current knowledge and standards for seismic design and flood protection.

Response: The site is not within a floodplain and does not include an existing building. The building will be designed to current codes.

POLICY 6.2 *Climate change resilience. Support planning, service system upgrades, and infrastructure in the Central City to anticipate, respond to, and reduce the risks and adverse impacts associated with evolving climate change conditions.*

a. Flooding. Adapt to changes in hydrology, including future river levels, changes in flood frequency and duration, and changes in stormwater runoff rates.

Response: The site is not within a floodplain. These guidelines are not applicable to the proposal.

b. Heat island. Encourage site designs, building designs and vegetation that reduce the adverse impacts of urban heat islands on public health and safety, especially those affecting more vulnerable communities.

Response: The proposed project includes an ecoroof, live walls, stormwater planters, and street trees all of which will reduce the heat print of the area. The proposal aligns with this guideline.

c. Fish and wildlife habitat. Improve the quality, diversity, connectivity, safety, and accessibility of terrestrial and aquatic wildlife habitat areas.

Response: The site is not located within a fish or wildlife habitat. This guideline is not applicable to the proposal.

POLICY 6.3 *Multiple functions. Encourage green infrastructure, parks, open space, and recreation opportunities in the Central City that serve multiple functions to provide capacity during flood event, improve stormwater management, reduce heat island effects, create pockets of fish and wildlife refuge, and provide places of respite and recreation for employees, residents and visitors.*

Response: The stormwater planter, ecoroof, and other elements of the project provide multiple benefits including visual softness, increasing pervious area, and providing habitat benefits. The proposal aligns with this guideline.

POLICY 6.4 *Green infrastructure. Increase the use of trees, ecoroofs, vertical gardens, sustainable site development, landscaped setbacks and courtyards, living walls and other vegetated facilities to manage stormwater, improve the pedestrian environment, reduce heat island effects, improve air and water quality and create habitat for birds and pollinators.*

a. Separated storm systems. Promote green infrastructure enhancements within the separated stormwater system to improve water quality in the Willamette River and at riverfront recreation areas.

Response: The proposed project includes stormwater planters, street trees, live walls, and an ecoroof to divert water to the separate stormwater system. The proposal aligns with this guideline.

b. Ecoroof. Support progress toward Central City ecoroof coverage targets.

Response: The proposed building will have as much ecoroof coverage as is possible with the structural design needed for an envent venue. The proposal aligns with this guideline.

POLICY 6.5 *Flood ready development. Reduce risks of flooding on existing and new buildings, transportation system and infrastructure.*

a. Impervious surface retrofits. Enhance flood capacity within the developed floodplain by retrofitting impervious surfaces with pervious surfaces and landscaping.

b. Flood capacity. Improve flood capacity by reducing development impacts and requiring mitigation for fill within the 100-year floodplain.

c. Building design. Encourage innovated building design along the Willamette River and in the 100-year floodplain to allow for ground floor flooding.

Response: The site is not within a floodplain. These guidelines are not applicable to the proposal.

Health

POLICY 6.6 *Human health. Encourage the use of active modes of transportation by creating and enhancing a network of bike and pedestrian facilities that provide access to services and destinations including natural areas. Improve access for all people to locally grown and healthy foods. Encourage the use of building construction methods, materials, products and best practices in lighting design that do not have harmful effects on human health and the environment. Encourage social health by fostering community in a hospitable public realm.*

Response: The project will include a pedestrian-friendly design and bicycle facilities, and will improve the public realm significantly from the currently vacant site. The proposal aligns with this guideline.

POLICY 6.7 *Light, Noise and Vibration Pollution. Encourage land use patterns, building design and landscape to limit and mitigate negative impacts of lighting, noise and vibration on public health and safety, disruption of ecosystems, and hazards to wildlife.*

Response: No private exterior lighting is proposed. The proposed event space is designed with modern design elements to decrease noise and vibration pollution. The proposal aligns with this guideline.

POLICY 6.8 *Upland habitat connections. Create an upland wildlife habitat corridor using trees, native vegetation in landscaping, public open spaces ecoroofs, and bird safe building design and practices that provide a safe, functional connection for avian and pollinator species between the West Hills, Mt. Tabor, Powell Butte, Rocky Butte and the Willamette River.*

Response: The proposed event venue will be fitted with an ecoroof, stormwater planters, and live walls that will be planted with native and pollinator attracting plants along with 11 street trees. The proposal aligns with this guideline.

POLICY 6.9 *Strategic tree canopy enhancement. Plant trees on tax lots, in parks and public spaces, and along rights-of-way, throughout the Central City to meet urban forestry and other Central City goals and guiding principles including resiliency, human and environmental health, livability, equity, and active transportation.*

a. Tree priorities. Encourage planting and preservation of large, healthy non-nuisance trees, native trees, and climate change-resilient trees.

Response: New street trees will be planted along the north, east, and southern sides of the proposed structure. All trees will comply with the relevant standards. The proposal aligns with this guideline.

b. Tree Diversity. Improve tree species and age diversity throughout the Central City.
Response: Planted trees will comply with the relevant standards. The proposal aligns with this guideline.

c. Heritage trees. Encourage the protection of designated Heritage and Landmark Trees.
Response: No trees currently exist on the site. This guideline is not applicable to the proposal.

c. Tree Canopy. Support progress toward meeting Central City tree canopy targets.

See district policies section for related policies in: CE
Response: Eleven street trees will be planted, resulting in additional canopy coverage within Central City. The proposal aligns with this guideline.

POLICY 6.10 Effective tree planting. Optimize tree planting opportunities and conditions throughout the Central City.

a. Tree size. Require that trees planted along rights-of-way are as large as is appropriate for the planting space.
Response: Planted trees will comply with the relevant standards. The proposal aligns with this guideline.

b. Soil volume. Encourage the provision of increased subsurface soil volumes to improve tree health and increase tree canopy coverage, especially in conjunction with development and infrastructure improvement project design and construction.
Response: Soil surrounding planted trees will comply with the relevant standards. The proposal aligns with this guideline.

c. Tree accommodation. Encourage wider sidewalk corridor furnishing zones and other right-ofway design elements (e.g., medians, bulb-outs) to facilitate planting and accommodation of larger canopy tree species.
Response: The proposed project includes widened sidewalks. The proposal aligns with this guideline.

d. Innovative design. Encourage innovative design strategies that accommodate existing healthy non-nuisance trees on site and incorporate new trees on sites and buildings. Trees on buildings may be placed on balconies and podium roof decks, planted in conjunction with an ecoroof, or in other locations.
Response: The proposed project includes the planting of 11 new street trees on an existing vacant lot. The project aligns with this guideline.

Building, infrastructure and site development

POLICY 6.11 Buildings and energy. Increase the energy efficiency of buildings, the use of onsite renewable energy systems, and the development of low-carbon district energy systems. Conserve resources by encouraging the reuse of existing building stock, salvaging architectural elements when demolition is necessary and recycling materials from construction and demolition.
Response: The proposal will meet applicable energy efficiency requirements of the building code and plan district. The project aligns with this guideline.

POLICY 6.12 *City investment in street trees. Invest in street trees as a valuable public infrastructure asset.*

a. Multiple benefits. Plant street trees to provide multiple benefits, including stormwater management, quality pedestrian environment, reduction in urban heat island, and wildlife habitat.

Response: The trees included in the proposed project provide the above benefits with no investment required from the City. The proposal aligns with his guideline.

b. Maintenance. Support innovative approaches, including public/private partnerships, to ensure adequate long-term maintenance of street trees to address tree-related concerns such as sidewalk repair.

Response: The project will not prevent the City from establishing such approaches.

POLICY 6.13 *Bird and wildlife-safe development. Encourage bird-friendly building and lighting design and management practices, to reduce hazards to resident and migrating birds, fish and other wildlife species.*

Response: The ecoroof, green wall, stormwater planter, and street trees will encourage wildlife. The proposed ecoroof plant species have been selected for their ability to provide habitat and ecological benefits. These species consist of a mix of herbaceous and native plants that support pollinators, butterflies, birds, and other wildlife.

POLICY 6.14 *Low-carbon development. Reduce carbon emissions from existing and new buildings, transportation systems and infrastructure.*

a. Healthy retrofits. Support retrofits to existing buildings to reduce energy use and improve indoor air quality.

Response: The project does not involve an existing building. This guideline does not apply to the proposal.

b. Green building. Encourage high-performance new buildings that meet the energy targets of the Architecture 2030 Challenge and 2015 Climate Action Plan, including net-zero energy use in all new buildings by 2030.

Response: The proposal will meet applicable energy efficiency requirements of the building code and plan district. The project aligns with this guideline.

c. High performance areas. Encourage "high performance areas" that conserve energy and water; use renewable energy sources; reduce waste and recycle; manage stormwater; improve occupant health; and enhance the character of the neighborhood, particularly in areas with large amounts of planned new development or redevelopment.

Response: The building will replace an impervious gravel lot and will increase the performance of the site.

d. Solar energy. Encourage the installation of on-site solar photovoltaic systems.

Response: The project does not prevent the installation of such systems.

e. Clean district energy. Enable the expansion and establishment of district energy systems that reduce carbon emissions.

Response: The project does not affect such establishment and establishment.

f. Low-carbon transportation. Reduce carbon emissions from transportation systems, including supporting electric vehicle infrastructure.

Response: The proposal discourages automobile transportation while encouraging bicycle and foot traffic. The proposal aligns with this guideline.

g. Carbon sequestration. Support the use of green infrastructure to increase carbon sequestration and reduce energy needed to cool buildings in summer.

Response: The previously discussed green elements in the proposed project increase carbon sequestration. The proposal aligns with this guideline.

Central Eastside

POLICY 6.CE-1 Freight-compatible green infrastructure. Plan for the development of green infrastructure, in the public right-of-way and on private property, taking into account freight street hierarchy by prioritizing city walkways and bikeways and mixed-use corridors for improvements such as trees and living walls throughout the district. Support the industrial area's functional relationship to the river.

Response: The project and frontage improvements are consistent with the TSP designations for the site. The proposal aligns with this guideline.

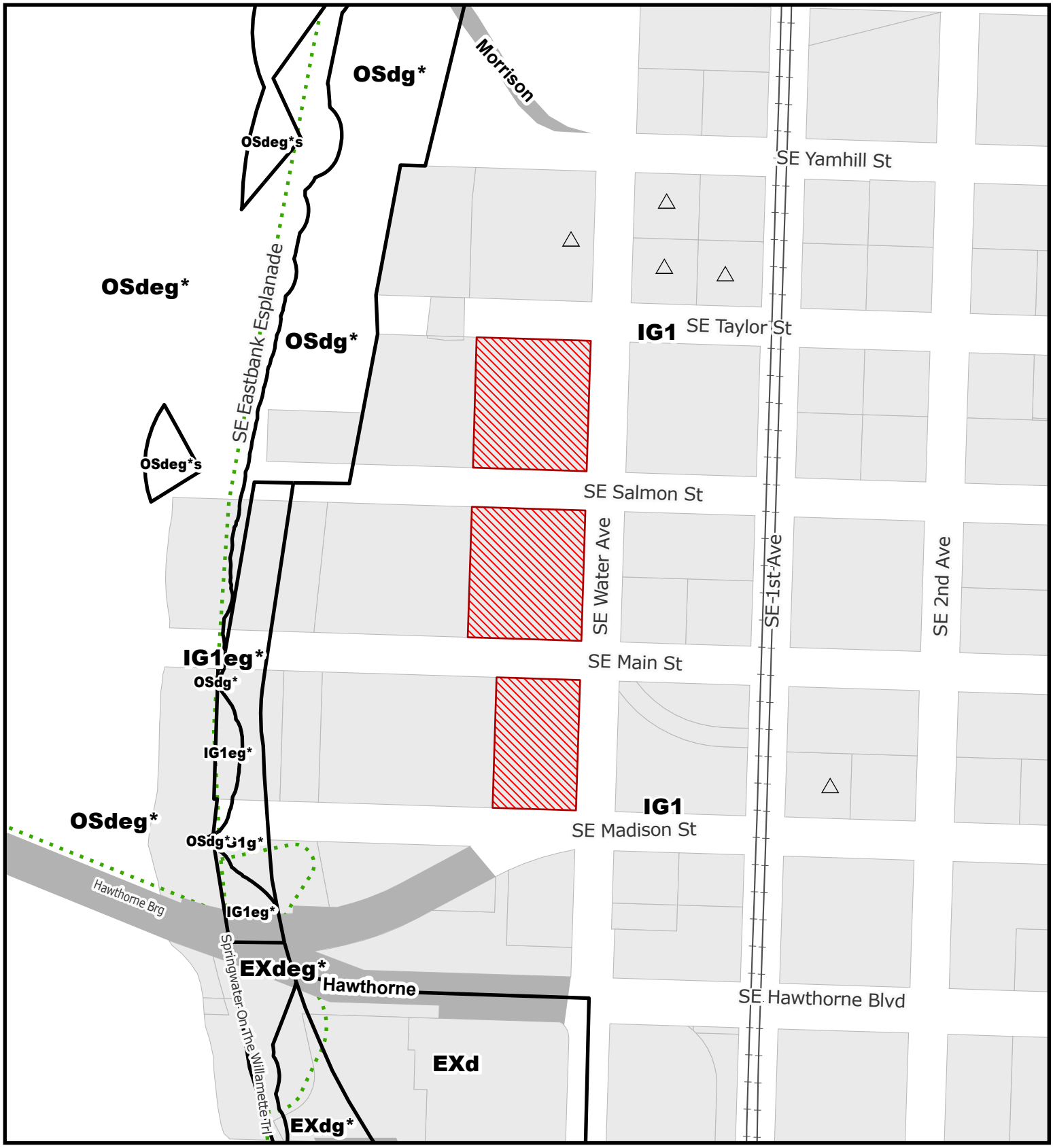
POLICY 6.CE-2 Strategic tree canopy enhancement. Promote planting, district-wide, and especially along mixed use commercial corridors with higher employment densities and residential uses, and along pedestrian and bike corridors. Select trees and locations that provide adequate clearance for freight movement on streets prioritized for freight mobility.

Response: The trees included in the proposed project are within a commercial corridor. The site is not on a street prioritized for freight mobility. The project aligns with this guideline.

VII. CONCLUSION

This application requests Conditional Use approval for the development of a new event venue in the Central Eastside Industrial District along with the approval of two Adjustments to development standards for loading spaces and ecoroof requirements.

Based on the information presented and discussed in this narrative, in conjunction with the attached supporting plans and documentation, the project demonstrates that it meets all criteria and standards. Furthermore, the project goes beyond just achieving the criteria for approval in that this innovative event venue will bring a much-needed vibrancy to the district, its people, its businesses, and the City at large. The applicant respectfully requests approval.



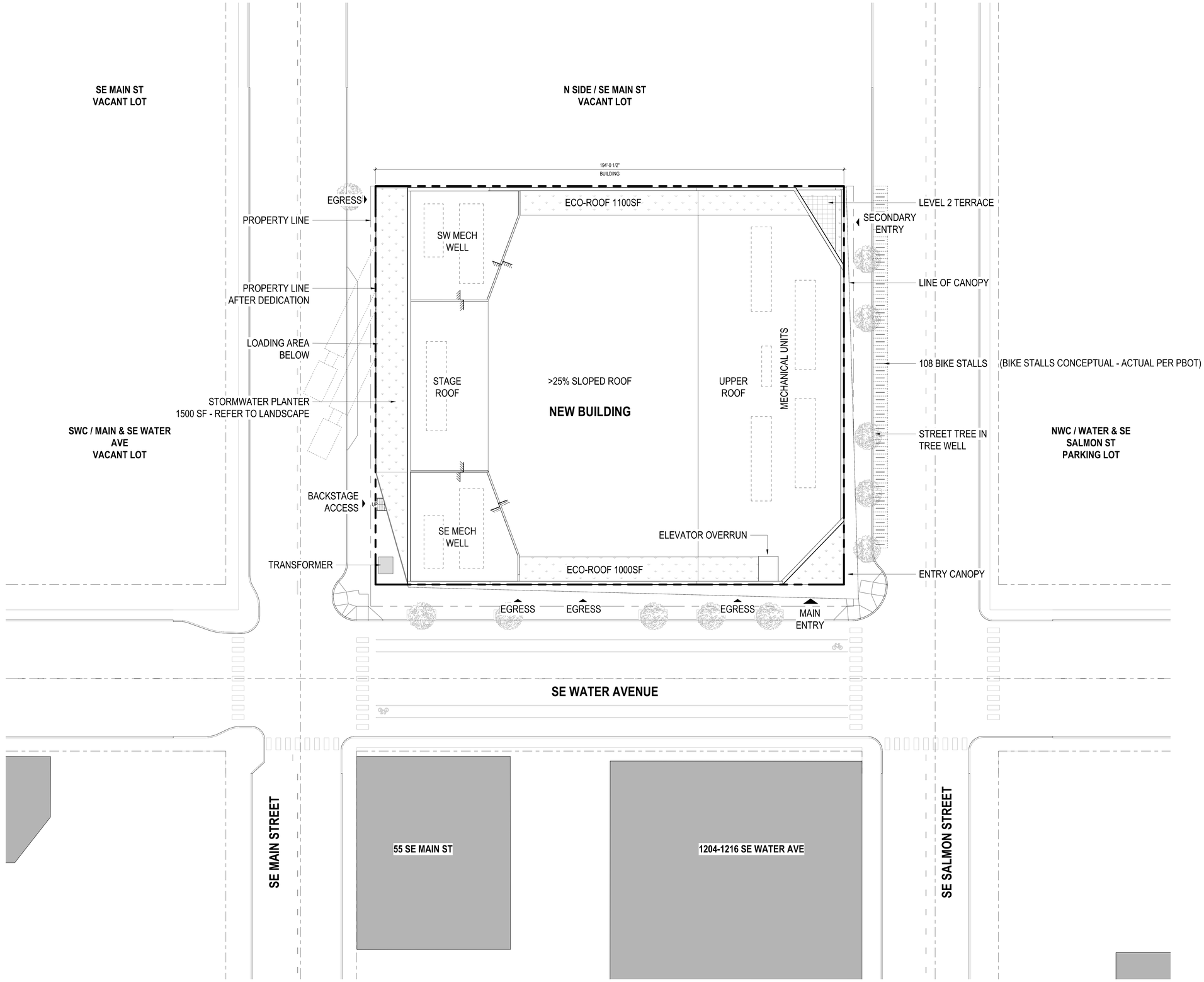
For Zoning Code in Effect Post October 1, 2022

ZONING

THIS SITE LIES WITHIN THE:
CENTRAL CITY PLAN DISTRICT
CENTRAL EASTSIDE SUBDISTRICT

Site
Historic Landmark
Recreational Trails

File No.	LU 23 - 111784 CU AD
1/4 Section	3130
Scale	1 inch =200 feet
State ID	1S1E03AD 3602
Exhibit	B Jan 16, 2024



1 Z090 ZONING - SITE PLAN
SCALE: 1/16" = 1'-0"

SITE DATA TABLE

SITE AREA:
34,860 SF

SITE AREA AFTER DEDICATION:
32,040 SF

BUILDING COVERAGE:
31,600 SF

TOTAL BUILDING AREA:
98,500 SF

VENUE CAPACITY:
APPROX 3,800 OCCUPANTS

BIKE PARKING TOTALS

(TABLE 266-6 MAJOR EVENT ENTERTAINMENT)

LONG TERM BIKE PARKING:
REQUIRED: 10 PROVIDED:10

SHORT TERM BIKE PARKING:
3800 OCCS / 40
REQUIRED: 95 PROVIDED: 108

CENTRAL EASTSIDE VENUE

NWC/MAIN & SE WATER AVE
PORTLAND, OR 97214

ARCHITECT
LEVER
4713 N. Albina Avenue,
4th Floor Portland, OR 97217
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STAMP

NOT FOR CONSTRUCTION

REVISIONS

PHASE
SCHEMATIC DESIGN

DATE
DECEMBER 21, 2023

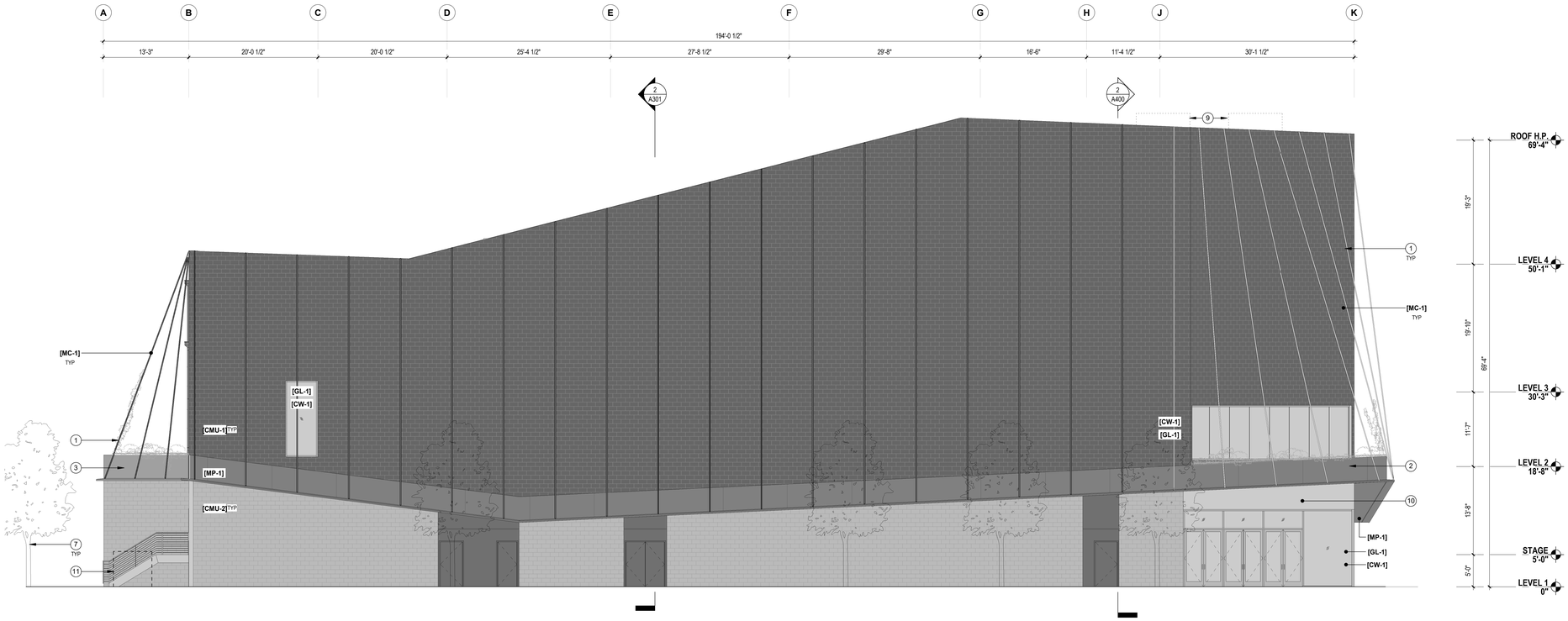
PROJECT NUMBER
271

SCALE
As indicated

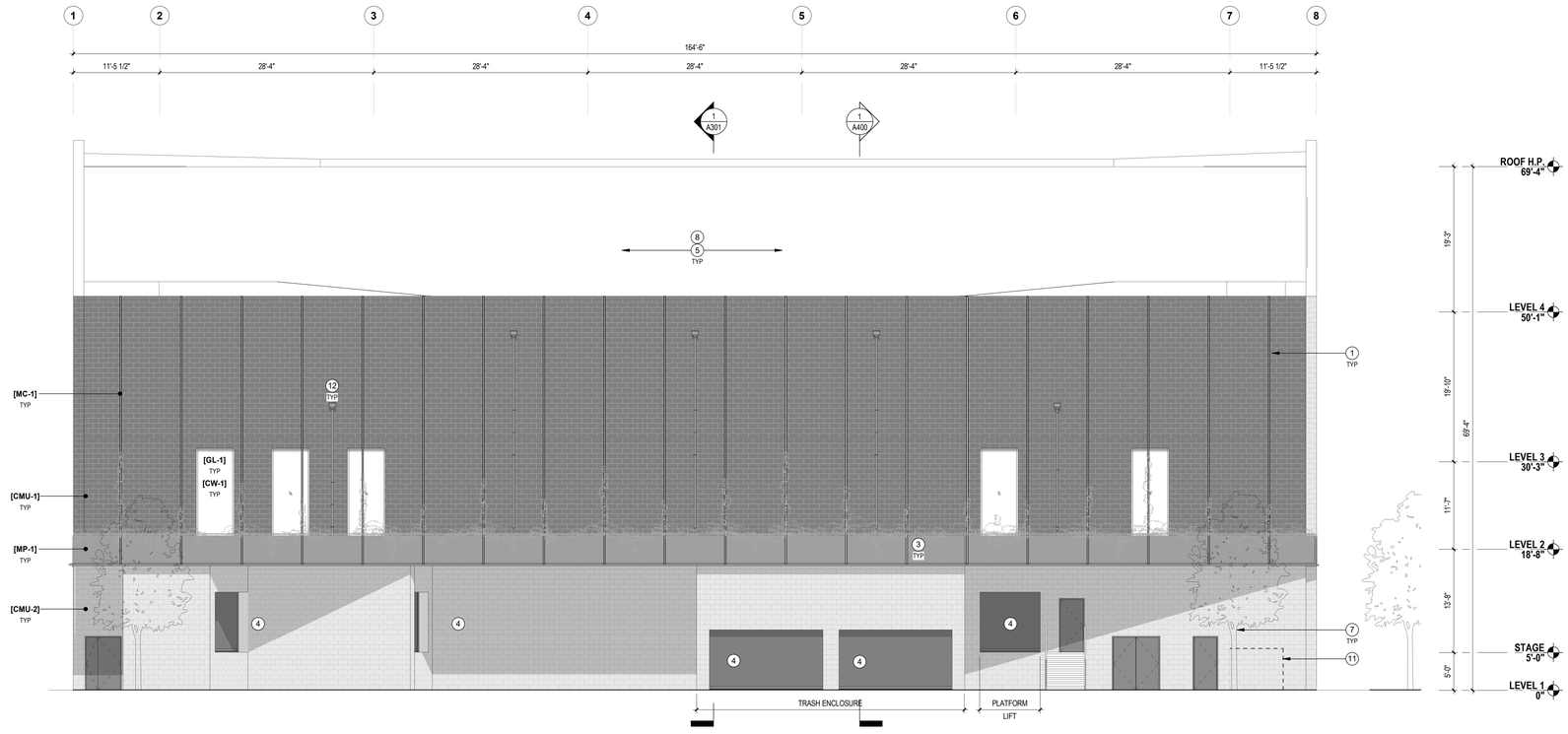
SHEET TITLE
ZONING - SITE PLAN

Z090

5/23/2024 2:09:08 PM
Autodesk Docs://Central Eastside Venue (CEV)/Arch_CEV_271_R23.rvt



1 Z201 ZONING - EAST BUILDING ELEVATION
SCALE: 1/8" = 1'-0"



2 Z201 ZONING - SOUTH BUILDING ELEVATION
SCALE: 1/8" = 1'-0"

ELEVATION KEYNOTES

1 NON-STRUCTURAL STEEL CLIMBING VINE TRELLIS.
2 CLIMBING VINE PLANTER/ CANOPY. REFER TO WALL SECTION FOR DETAILS.
3 STORMWATER PLANTER.
4 OVERHEAD ROLL-UP DOOR.
5 >25% SLOPED ROOF BEYOND.
6 EXISTING CURB EXTENSION
7 STREET TREE IN TREE WELL.
8 ROOFING MEMBRANE COMPLIANT WITH COOL ROOF REQUIREMENTS.
9 MECHANICAL UNIT BEYOND
10 LED DISPLAY
11 TRANSFORMER
12 SCUPPER & DOWNSPOUT

FINISH + MAT'L LEGEND

[CONC-1] CAST-IN-PLACE CONCRETE

[CMU-1] CONCRETE MANSONRY UNIT
BOD: MUTUAL MAT'LS GROUND FACE 8-8-16 STANDARD IN SABLE

[CMU-2] CONCRETE MANSONRY UNIT - FLUTED FACE WITH CLEAR FINISH
BOD: MUTUAL MAT'LS 8-8-16 7-SCORE BOND BEAM SPLIT FACE

[CW-1] ALUMINUM CURTAIN WALL

[CP-1] PRECAST CONCRETE PAVER

[DP-1] BITUMINOUS DAMPPROOFING

[GL-1] 1" INSULATED GLAZING UNIT

[GR-1] EXTERIOR 42" GUARDRAIL
BOD: STEEL PIPE + CARL STAHL X-TEND CABLE MESH

[GR-2] BALCONY 42" GUARDRAIL
BOD: REFER TO OWNER STANDARD

[HR-1] HANDRAIL

[INSUL-1] BATT INSULATION

[INSUL-2] MINERAL WOOL INSULATION

[INSUL-3] POLYISOCYANURATE INSULATION

[INSUL-4] EXPANDED POLYSTYRENE INSULATION

[INSUL-5] EXTRUDED POLYSTYRENE INSULATION

[INSUL-6] CLOSED CELL SPRAY FOAM INSULATION

[MC-1] STEEL TRELLIS SYSTEM
BOD: CARL STAHL GREEN CABLE HEAVY

[MP-1] COMPOSITE METAL PANEL

[MF-1] SHEET METAL FLASHING

[MR-1] MIRROR

[P-1] PAINT - COLOR 1

[RF-1] 60 MIL SINGLE-PLY PVC ROOF

[RF-2] 2-PLY SBS ROOF ASSEMBLY

[SAM-1] ASPHALTIC FLASHING MEMBRANE

[SAM-2] BUTYL FLASHING MEMBRANE

[SAM-3] HIGH-TEMP FLASHING MEMBRANE

[WOM-1] RECESSED WALK-OFF MAT

[WP-1] BELOW GRADE WATERPROOFING - BENTONITE

[WP-2] BELOW GRADE WATERPROOFING - SHEET MEMBRANE

[WR-1] WATER-REPELLANT COATING

[WR-2] WATER-REPELLANT + GRAFFITI COATING

[VPR-1] INTERIOR VAPOR RETARDER

[VPR-2] ROOF VAPOR RETARDER

[VPR-3] UNDER-SLAB VAPOR RETARDER

STEEL TRELLIS TOTALS

QTY:65
VARIED LENGTHS
LONGEST: 60' - 0" SHORTEST: 36' - 6"

CENTRAL EASTSIDE VENUE

NWC/MAIN & SE WATER AVE
PORTLAND, OR 97214

ARCHITECT
LEVER
4713 N. Albina Avenue,
4th Floor Portland, OR 97217
T. 503.928.6940
www.leverarchitecture.com

STAMP

NOT FOR CONSTRUCTION

REVISIONS

PHASE
SCHEMATIC DESIGN

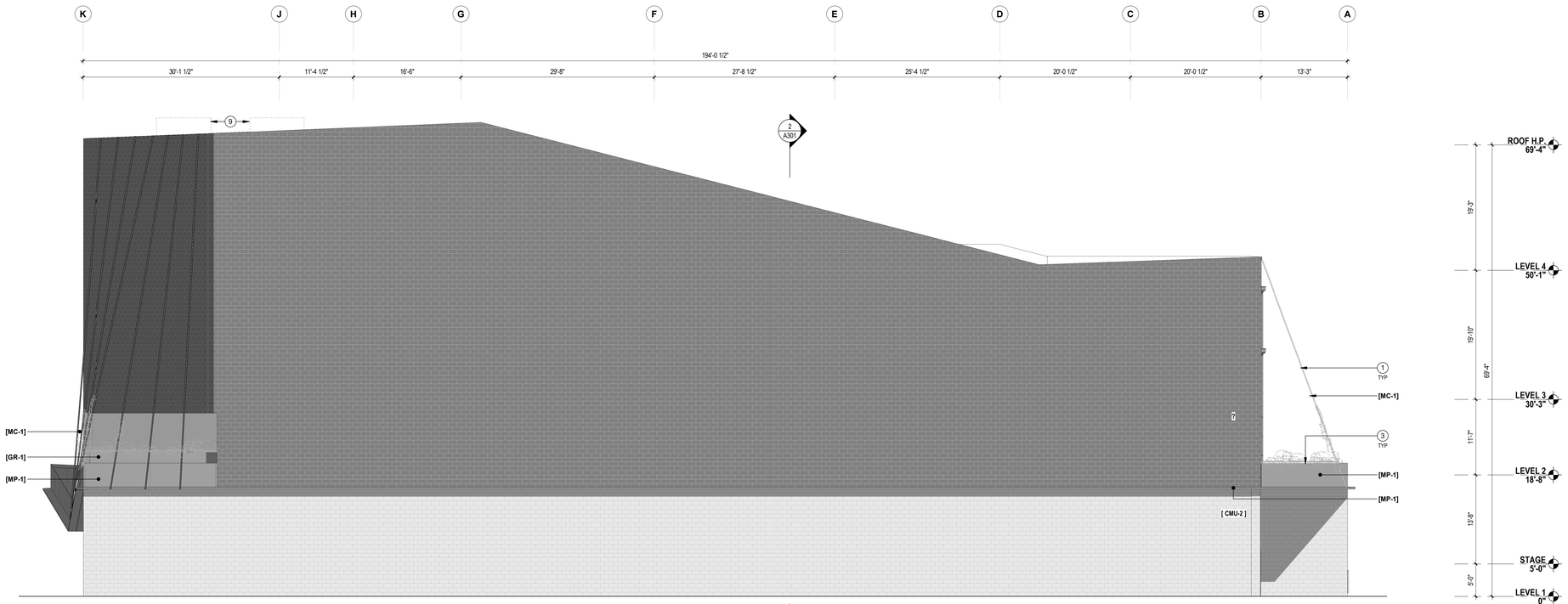
DATE
DECEMBER 21, 2023

PROJECT NUMBER
271

SCALE
As indicated

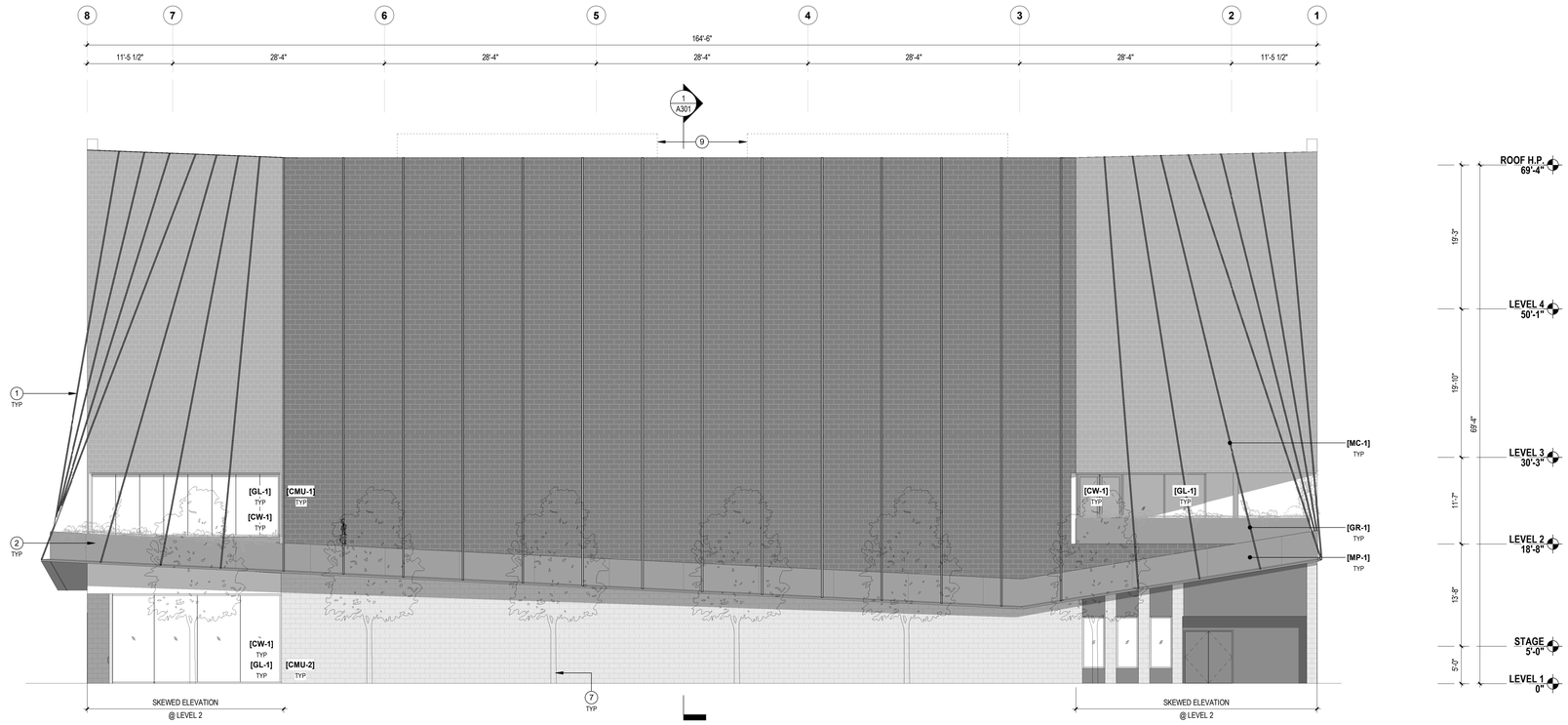
SHEET TITLE
EXTERIOR BUILDING ELEVATIONS - SOUTH & EAST

Z201



2 Z202 ZONING - WEST BUILDING ELEVATION

SCALE: 1/8" = 1'-0"



1 Z202 ZONING - NORTH BUILDING ELEVATION

SCALE: 1/8" = 1'-0"

ELEVATION KEYNOTES

1 NON-STRUCTURAL STEEL CLIMBING VINE TRELLIS.
2 CLIMBING VINE PLANTER/ CANOPY. REFER TO WALL SECTION FOR DETAILS.
3 STORMWATER PLANTER.
4 OVERHEAD ROLL-UP DOOR.
5 >25% SLOPED ROOF BEYOND.
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10 LED DISPLAY
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12 SCUPPER & DOWNSPOUT

FINISH + MAT'L LEGEND

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[CMU-1] CONCRETE MANSONRY UNIT
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[CP-1] PRECAST CONCRETE PAVER

[DP-1] BITUMINOUS DAMPPROOFING

[GL-1] 1" INSULATED GLAZING UNIT

[GR-1] EXTERIOR 42" GUARDRAIL
BOD: STEEL PIPE + CARL STAHL X-TEND CABLE MESH

[GR-2] BALCONY 42" GUARDRAIL
BOD: REFER TO OWNER STANDARD

[HR-1] HANDRAIL

[INSUL-1] BATT INSULATION

[INSUL-2] MINERAL WOOL INSULATION

[INSUL-3] POLYISOCYANURATE INSULATION

[INSUL-4] EXPANDED POLYSTYRENE INSULATION

[INSUL-5] EXTRUDED POLYSTYRENE INSULATION

[INSUL-6] CLOSED CELL SPRAY FOAM INSULATION

[MC-1] STEEL TRELLIS SYSTEM
BOD: CARL STAHL GREEN CABLE HEAVY

[MP-1] COMPOSITE METAL PANEL

[MF-1] SHEET METAL FLASHING

[MR-1] MIRROR

[P-1] PAINT - COLOR 1

[RF-1] 60 MIL SINGLE-PLY PVC ROOF

[RF-2] 2-PLY SBS ROOF ASSEMBLY

[SAM-1] ASPHALTIC FLASHING MEMBRANE

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[WOM-1] RECESSED WALK-OFF MAT

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[WR-1] WATER-REPELLANT COATING

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STEEL TRELLIS TOTALS

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SCHEMATIC DESIGN

DATE
DECEMBER 21, 2023

PROJECT NUMBER
271

SCALE
As indicated

SHEET TITLE
EXTERIOR BUILDING ELEVATIONS - NORTH & WEST

Z202


tonight: incididunt ut labore et dolor
tonight: incididunt ut labore et dolor

City of Portland, Oregon
Bureau of Development Services
Land Use Services
FROM CONCEPT TO CONSTRUCTION

Carmen Rubio, Commissioner
David Kuhnhausen, Interim Director
Phone: (503) 823-7300
TTY: 711
www.portland.gov/bds

Date: May 29, 2024

From: Andrew Gulizia, Land Use Services
503-865-6714 / Andrew.Gulizia@portlandoregon.gov

REQUEST FOR RESPONSE

Case File: **LU 23-111784 CU AD**
Pre-App: **PC # 22-128857**

This notice is being sent to all service and technical review agencies for their input on the proposal described below. Neighborhood Associations also receive this advance notice via email. *Your timely response, as indicated below, will help the assigned planner determine if applicable approval criteria can be met, or what conditions might be required*.

- The approval criteria are listed below. Although we are interested in any comments you may have, please consider your response in terms of these criteria.
- All agencies are encouraged to use this as an opportunity to inform the applicant of any additional requirements that may be imposed by your agency during building permit phase – especially those that would significantly affect the proposal.
- Please note in your response which requirements are specifically associated with the applicable land use review approval criteria, and which requirements you have the independent authority to impose at time of building permits.
- Neighborhood Associations are encouraged to submit comments by the deadline noted below. To comment, you may write to Andrew Gulizia at 1900 SW Fourth Ave., Suite 5000, Portland, OR 97201 or email andrew.gulizia@portlandoregon.gov. After the staff report is published, please submit your comments to the Hearings Officer at 1900 SW Fourth Ave., Suite 3100, Portland, OR 97201 or hearingsofficeclerks@portlandoregon.gov.

The Bureau of Development Services recommendation will be published 10 days before the scheduled hearing date. You will also receive a Notice of Public Hearing for this proposal, with hearing date and time confirmed, mailed at least 20 days prior to the hearing.

- **Please send your response to BDS no later than June 18, 2024.**
  (If I receive comments after this date, I may not have enough time to include them in the staff report).
- **We must publish our report by June 21, 2024.**
- **A public hearing before the Hearings Officer is tentatively scheduled for July 3, 2024.**

Applicant's Representative:	Suzannah Stanley Mackenzie 1515 SE Water Ave., Ste. 100 Portland OR 97214 (971) 346-3808 sstanley@mcknze.com
Applicant:	Johnathan Malsin Beam Development 1001 SE Water Ave., Ste. 400 Portland, OR 97214
Property Owner's Agent:	Paul Gagliardi PDC dba Prosper Portland 222 NW 5th Ave. Portland, OR 97209
Property Owner:	PDC dba Prosper Portland 220 NW 2nd Ave. #200 Portland, OR 97209
Site Address:	west side of SE Water Ave. between SE Salmon St. and SE Main St.
Legal Description:	LOT 1 TL 3602, PARTITION PLAT 2016-7; LOT 1 TL 4305, PARTITION PLAT 2016-8; LOT 1 TL 1705, PARTITION PLAT 2016-9
Tax Account No.:	R649670250, R649670290, R649670330
State ID No.:	1S1E03AD 03602, 1S1E03AD 04305, 1S1E03AD 01705
Quarter Section:	3130
Neighborhood:	Buckman, contact Nick Olson at buckmanlandusepdx@gmail.com
Business District:	Central Eastside Industrial Council, contact at ceic@ceic.cc
District Coalition:	Southeast Uplift, contact at matchu@seuplift.org
Plan District:	Central City (Central Eastside Subdistrict)
Zoning:	IG1 – General Industrial 1
Case Type:	CU AD – Conditional Use Review and Adjustment Review
Procedure:	Type III, with a public hearing before the Hearings Officer. The decision of the Hearings Officer can be appealed to City Council.

Proposal:
The applicant proposes to construct a new, 62,000-square-foot building on this site to be used as a concert venue with 1,280 seats and a maximum spectator capacity of 3,500. The applicant requests Conditional Use Review approval for a new Major Event Entertainment use in the IG1 zone. Type III Conditional Use Review is required by Zoning Code Sections 33.140.100.C and 33.815.040.A.1.

The applicant also requests approval of three Adjustments to Zoning Code requirements for this project:

- To reduce the minimum number of on-site, short-term bike parking spaces from 32 to zero (Zoning Code Section 33.266.200.B.1). The applicant proposes to install more than 32 bike parking spaces in the public right-of-way adjacent to the site subject to approval by the Portland Bureau of Transportation. However, bike parking in the public right-of-way does not count toward the Zoning Code requirement.

- To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c). The applicant proposes to create 2 truck loading spaces which are primarily in the public right-of-way adjacent to the site subject to approval by the Portland Bureau of Transportation. However, loading areas in the public right-of-way do not count toward the Zoning Code requirement.

- To reduce the amount of ecoroof area required from 14,617 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 2,100 square feet (Zoning Code Section 33.510.243.B.1).

Approval Criteria:
To be approved, this proposal must comply with the approval criteria of Title 33, the Portland Zoning Code. The applicable approval criteria are:

- Zoning Code Section 33.815.215.A-D (Conditional Use Review); and
- Zoning Code Section 33.805.040.A-F (Adjustment Review).

Zoning Code Section 33.700.080 states that land use review applications are reviewed under the regulations in effect at the time the application was filed, provided that the application is complete at the time of filing or complete within 180 days. This application was filed on December 22, 2023 and determined to be complete on May 23, 2024.

It is important to submit all evidence to the Hearings Officer. City Council will not accept additional evidence if there is an appeal of this proposal.

Enclosures: zoning map, site plan, photo simulation

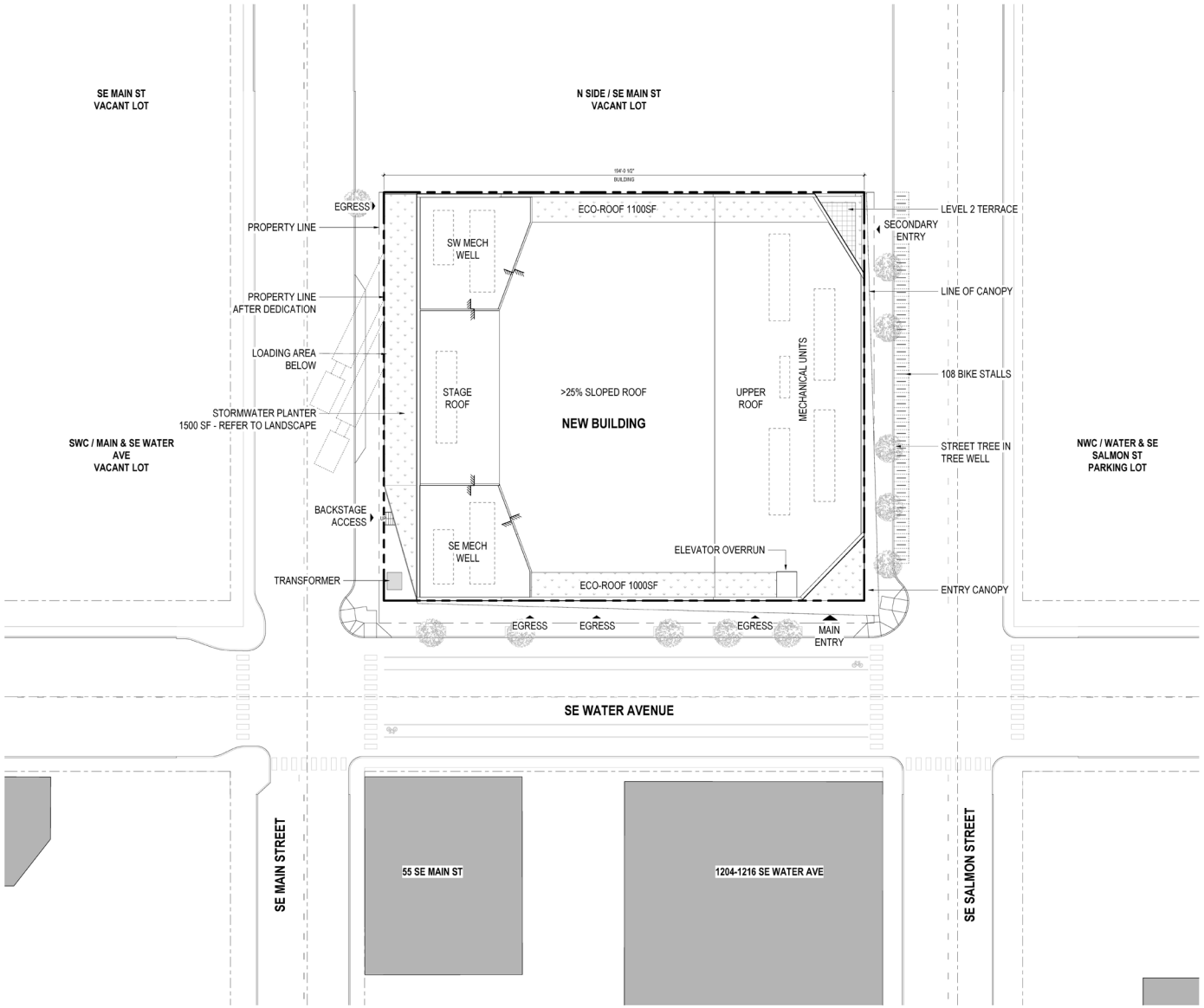
For Zoning Code in Effect Post October 1, 2022

ZONING

THIS SITE LIES WITHIN THE:
CENTRAL CITY PLAN DISTRICT
CENTRAL EASTSIDE SUBDISTRICT

Site
Historic Landmark
Recreational Trails

File No. LU 23 - 111784 CU AD
1/4 Section 3130
Scale 1 inch =200 feet
State ID 1S1E03AD 3602
Exhibit B Jan 16, 2024



1 / Z090 ZONING - SITE PLAN
SCALE: 1/16" = 1'-0"

65-75 SE MAIN ST

SITE DATA TABLE

SITE AREA:
34,860 SF

SITE AREA AFTER DEDICATION:
32,040 SF

BUILDING COVERAGE:
31,600 SF

TOTAL BUILDING AREA:
98,500 SF

VENUE CAPACITY:
APPROX 3,800 OCCUPANTS

BIKE PARKING TOTALS

(TABLE 266-6 MAJOR EVENT ENTERTAINMENT)

LONG TERM BIKE PARKING:
REQUIRED: 10 PROVIDED:10

SHORT TERM BIKE PARKING:
3800 OCCS / 40
REQUIRED: 95 PROVIDED: 108

CENTRAL EASTSIDE VENUE

NWC/MAIN & SE WATER AVE
PORTLAND, OR 97214

ARCHITECT
LEVER
4713 N. Albina Avenue,
4th Floor Portland, OR 97217
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ZONING - SITE PLAN

Z090

LU 23-111784 CU AD

LU 23-111784 CU AD Exhibit D-1

5/23/2024 2:09:09 PM
Autodesk Docs://Central Eastside Venue (CEV)/Arch_CEV_271_R23.rvt


tonight: incididunt ut labore et dolor
LU 23-111784 CU AD

City of Portland, Oregon
Bureau of Development Services
Land Use Services
FROM CONCEPT TO CONSTRUCTION

Carmen Rubio, Commissioner
David Kuhnhausen, Interim Director
Phone: (503) 823-7300
TTY: 711
www.portland.gov/bds

Date: May 29, 2024

To: Suzannah Stanley
Mackenzie
sstanley@mcknze.com

From: Andrew Gulizia
(503) 865-6714
Andrew.Gulizia@portlandoregon.gov

RE: LU 23-111784 CU AD

Dear Applicant:

Your Conditional Use Review and Adjustment Review hearing is scheduled for **Wednesday, July 10, 2024 at 1:00 pm**. The Zoning Code requires you to post notice signs on the site at least 30 days before the hearing. The information below will help you do this. **It is recommended that you work with a sign manufacturer to prepare the posting boards.** I am enclosing a digital copy of the posting board, a copy of the notice that must be placed on the posting boards, and instructions for printing and installation.

A Signs are required for each abutting street frontage. Six signs are required for this site:

- 2 signs must face SE Water Ave.
- 1 sign must face SE Taylor St.
- 1 sign must face SE Salmon St.
- 1 sign must face SE Main St.
- 1 sign must face SE Madison St.

B. These signs must be placed within 10 feet of the street frontage line and must be visible to pedestrians and motorists. You may not post in the public right-of-way.

C. Because the hearing for your case is scheduled for July 10, 2024, you must post the notices by **June 10, 2024, which is 30 days before the hearing.**

D. **A certification statement is enclosed, which you must sign and return.** The statement affirms that you posted the site. It also confirms your understanding that if you do not post the notice by the date above, your hearing will be automatically postponed. In addition, time limits on our processing of your case will be waived. You must return this statement to me by **June 26, 2024, which is 14 days before the hearing.**

E. You should not remove the notice before the hearing, but it must be taken down within two weeks after the final decision is made on your request.

Encl: Posting Notice
Statement Certifying Posting

POSTING NOTICE

CASE FILE: LU 23-111784 CU AD (PC # 22-128857)
REVIEW BY: Hearings Officer
WHEN: Wednesday, July 10, 2024 at 1:00 pm

It is important to submit all evidence to the Hearings Officer. City Council will not accept additional evidence if there is an appeal of this proposal.

This land use hearing will take place online using the Zoom platform. More information on how to participate online or by phone is available at www.portland.gov/omf/hearings/land-use and will be provided with the Notice of Public Hearing mailed 20 days before the hearing and posted at https://www.portland.gov/bds/zoning-land-use/events. You may also contact the planner at the phone number or email address at the bottom of this page.

Location: west side of SE Water Ave. between SE Salmon St. and SE Main St.

Legal Description: LOT 1 TL 3602, PARTITION PLAT 2016-7; LOT 1 TL 4305, PARTITION PLAT 2016-8; LOT 1 TL 1705, PARTITION PLAT 2016-9

Zoning: IG1- General Industrial 1
Central City Plan District (Central Eastside Subdistrict)

Proposal: The applicant proposes to construct a new, 62,000-square-foot building on this site to be used as a concert venue with 1,280 seats and a maximum spectator capacity of 3,500. The applicant requests Conditional Use Review approval for a new Major Event Entertainment use in the IG1 zone. Type III Conditional Use Review is required by Zoning Code Sections 33.140.100.C and 33.815.040.A.1.

The applicant also requests approval of three Adjustments to Zoning Code requirements for this project:

- To reduce the minimum number of on-site, short-term bike parking spaces from 32 to zero (Zoning Code Section 33.266.200.B.1). The applicant proposes to install bike parking in the public right-of-way adjacent to the site.
- To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c). The applicant proposes to create 2 truck loading spaces which are primarily in the public right-of-way adjacent to the site.
- To reduce the amount of ecoroof area required from 14,617 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 2,100 square feet (Zoning Code Section 33.510.243.B.1).

Further information is available from the Bureau of Development Services. Please contact Andrew Gulizia at (503) 865-6714 or at Andrew.Gulizia@portlandoregon.gov.

The Bureau of Development Services is committed to providing equal access to information and hearings. To request an accommodation or alternative format of communication, please contact us at least five business days prior to the hearing at 503-823-7300 (TTY 503-823-6868).

Suzannah Stanley
Mackenzie
sstanley@mcknze.com

TO: Andy Gulizia, City Planner
andrew.gulizia@portlandoregon.gov

DATE: _____

APPLICANT'S STATEMENT CERTIFYING POSTING

Case File LU 23-111784

This certifies that I have posted notice on my site as required by the Zoning Code. I understand that the hearing is scheduled for July 10, 2024, and that I was required to post the property at least 30 days before the hearing.

The required number of poster boards, with the notices attached, were set up on _____(date). These were placed within 10 feet of the street frontage line so that they were visible to pedestrians and motorists.

I understand that this form must be returned to the Bureau of Development Services no later than June 26, 2024, 14 days before the scheduled hearing. I also understand that if I do not post the notices by 30 days before the hearing or return this form by 14 days before the hearing, my hearing will automatically be postponed. I also understand this will result in a waiver of the time limits for processing my case.

In addition, I understand that I may not remove the notices before the hearing but am required to remove them within two weeks of the final decision on my request.

_____
Signature

_____
Print Name

_____
Address

_____
City/State/Zip Code

Suzannah Stanley
Mackenzie
sstanley@mcknze.com

TO: Andy Gulizia, City Planner
andrew.gulizia@portlandoregon.gov

DATE: 06/06/2024

APPLICANT'S STATEMENT CERTIFYING POSTING

Case File LU 23-111784

This certifies that I have posted notice on my site as required by the Zoning Code. I understand that the hearing is scheduled for July 10, 2024, and that I was required to post the property at least 30 days before the hearing.

The required number of poster boards, with the notices attached, were set up on 06/06/2024 (date). These were placed within 10 feet of the street frontage line so that they were visible to pedestrians and motorists.

I understand that this form must be returned to the Bureau of Development Services no later than June 26, 2024, 14 days before the scheduled hearing. I also understand that if I do not post the notices by 30 days before the hearing or return this form by 14 days before the hearing, my hearing will automatically be postponed. I also understand this will result in a waiver of the time limits for processing my case.

In addition, I understand that I may not remove the notices before the hearing but am required to remove them within two weeks of the final decision on my request.

Thesmaron B
Signature

Thesmaron Bernardino
Print Name

1515 SE Water Avenue, Suite 100
Address

Portland, Oregon 97214
City/State/Zip Code

City of Portland, Oregon
Bureau of Development Services
Land Use Services
FROM CONCEPT TO CONSTRUCTION

Carmen Rubio, Commissioner
David Kuhnhausen, Interim Director
Phone: (503) 823-7300
TTY: 711
www.portland.gov/bds

Date: June 20, 2024

To: Interested Person

From: Andrew Gulizia, Land Use Services
503-865-6714 / Andrew.Gulizia@portlandoregon.gov

NOTICE OF A PUBLIC HEARING ON A PROPOSAL IN YOUR NEIGHBORHOOD

CASE FILE: LU 23-111784 CU AD
(Pre-Application Conference # 22-128857 PC)
REVIEW BY: Hearings Officer
WHEN: July 10, 2024, at 1:00 PM

This land use hearing will be limited to remote participation via Zoom. Please refer to the instructions included with this notice to observe and participate remotely (online or by phone).

Additional Hearings Office information is available at www.portland.gov/omf/hearings/land-use.

It is important to submit all evidence to the Hearings Officer. City Council will not accept additional evidence if there is an appeal of this proposal.

The development proposal, review process, and information on how to respond to this notice are described below. A copy of the site plan and zoning map are attached. I am the staff person handling the case. Please contact me if you have questions regarding this proposal.

Applicant's Representative: Suzannah Stanley
Mackenzie
1515 SE Water Ave., Ste. 100
Portland, OR 97214
(971) 346-3808, sstanley@mcknze.com

Applicant: Johnathan Malsin
Beam Development
1001 SE Water Ave., Ste. 400
Portland, OR 97214

Property Owner's Agent: Paul Gagliardi
PDC dba Prosper Portland
222 NW 5th Ave.
Portland, OR 97209

Property Owner: PDC dba Prosper Portland
220 NW 2nd Ave. #200
Portland, OR 97209

Site Address: west side of SE Water Ave. between SE Salmon St. and SE Main St.

Legal Description: LOT 1 TL 3602, PARTITION PLAT 2016-7; LOT 1 TL 4305, PARTITION PLAT 2016-8; LOT 1 TL 1705, PARTITION PLAT 2016-9

Tax Account No.: R649670250, R649670290, R649670330
State ID No.: 1S1E03AD 03602, 1S1E03AD 04305, 1S1E03AD 01705
Quarter Section: 3130

Neighborhood: Buckman, contact Nick Olson at buckmanlandusepdx@gmail.com
Business District: Central Eastside Industrial Council, contact at ceic@ceic.cc
District Coalition: Before 7/1/2024 Southeast Uplift, contact at matchu@seuplift.org, After 7/1/2024 DISTRICT 3, contact at matchu@seuplift.org

Plan District: Central City (Central Eastside Subdistrict)
Zoning: IG1 – General Industrial 1
Case Type: CU AD – Conditional Use Review and Adjustment Review
Procedure: Type III, with a public hearing before the Hearings Officer. The decision of the Hearings Officer can be appealed to City Council.

Proposal: The applicant proposes to construct a new, 62,000-square-foot building on this site to be used as a concert venue with 1,280 seats and a maximum spectator capacity of 3,500. The applicant requests Conditional Use Review approval for a new Major Event Entertainment use in the IG1 zone. Type III Conditional Use Review is required by Zoning Code Sections 33.140.100.C and 33.815.040.A.1.

The applicant also requests approval of three Adjustments to Zoning Code requirements for this project:

- To reduce the minimum number of on-site, short-term bike parking spaces from 32 to zero (Zoning Code Section 33.266.200.B.1). The applicant proposes to install more than 32 bike parking spaces in the public right-of-way adjacent to the site subject to approval by the Portland Bureau of Transportation. However, bike parking in the public right-of-way does not count toward the Zoning Code requirement.

- To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c). The applicant proposes to create 2 truck loading spaces which are primarily in the public right-of-way adjacent to the site subject to approval by the Portland Bureau of Transportation. However, loading areas in the public right-of-way do not count toward the Zoning Code requirement.

- To reduce the amount of ecoroof area required from 14,617 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 2,100 square feet (Zoning Code Section 33.510.243.B.1).

Relevant Approval Criteria: To be approved, this proposal must comply with the approval criteria of Title 33, the Portland Zoning Code. The applicable approval criteria are:

- Zoning Code Section 33.815.215.A-D (Conditional Use Review); and
- Zoning Code Section 33.805.040.A-F (Adjustment Review).

The Portland Zoning Code is available online at https://www.portland.gov/code/33.

Zoning Code Section 33.700.080 states that land use review applications are reviewed under the regulations in effect at the time the application was submitted, provided that the application is complete at the time of submittal, or complete within 180 days. This application was submitted on December 22, 2023 and determined to be complete on May 23, 2024.

Decision Making Process: The Bureau of Development Services will make a recommendation on this proposal; our report and recommendation will be available 10 days before the hearing. The staff report will be posted on the Bureau of Development Services website at https://www.portland.gov/bds/zoning-land-use/public-notices. Enter the land use case file

number in the keyword search. If you are interested in viewing the file, please contact the planner listed on the front of this notice. The planner can provide information over the phone or via email. Only digital copies of the material in the file are available for viewing.

The proceeding before the Hearings Officer will be the only opportunity for the parties to submit oral and written evidence in this matter. Any appeal to the City Council will be limited to legal arguments concerning the Hearings Officer decision and the evidence in the record compiled by the Hearings Officer in support of that decision.

To comment, you may testify at the hearing, submit comments at www.portland.gov/omf/hearings/land-use; email your comments to HearingsOfficeClerks@portlandoregon.gov; write to the Land Use Hearings Officer, 1900 SW Fourth Ave., Suite 3100, Portland, OR 97201; or FAX your comments to 503-823-4347. **Please see the enclosed insert for further information on how to testify.** In your comments, you should address the approval criteria. Please refer to the file number when seeking information or submitting testimony. Written comments must be received by the end of the hearing. Please note that all correspondence and testimony received will become part of the public record. The applicant and Bureau of Development Services staff will be available during the hearing to answer questions and respond to comments. The general order of appearance for oral testimony at the hearing is as follows: Bureau of Development Services staff report, applicant testimony, testimony of interested parties who wish to ask questions or testify, staff response and closing comments, and applicant's closing comments. The Hearings Officer will make a decision about this proposal within 17 days of the close of the record.

ORS 227.178 states the City must issue a final decision on land use review applications within 120 days of the application being deemed complete. The 120-day review period may be extended at the request of the applicant.

Appeal Process: You can appeal the Hearings Officer decision to the City Council. However, the appeal to City Council will be conducted as an on-the-record review of the Hearings Officer decision. The City Council will consider legal arguments (for example arguments pointing out ways the Hearings Officer decision improperly interprets or applies relevant approval criteria). The City Council will also consider arguments that the Hearings Officer findings are not supported by the evidence submitted to the Hearings Officer. However, the City Council will not accept or consider new evidence that was not submitted to the Hearings Officer.

A fee is charged for appeals. Recognized neighborhood associations may qualify for an appeal fee waiver.

The City Council's decision on an appeal may be appealed to the Oregon Land Use Board of Appeals (LUBA). Failure to raise an issue, in person or in writing, by the close of the record by the Hearings Officer in this case may preclude an appeal to LUBA on that issue. If you do not provide enough detailed information to the Hearings Officer, they may not be able to respond to the issue you are trying to raise. In such a situation, an appeal to LUBA on that issue may not be allowed.

Hearing Cancellation: This public hearing may be canceled due to inclement weather or other emergency. Contact the Hearings Office at 503-823-7307 or HearingsOfficeClerks@portlandoregon.gov for immediate information regarding cancellations or rescheduling. If canceled, the hearing will be rescheduled for the earliest possible date. A renotification notice will not be sent. Additional information about the Hearings Office is available at www.portland.gov/omf/hearings/land-use.

The Bureau of Development Services is committed to providing equal access to information and hearings. To request an accommodation or alternative format of communication, please contact us at least five business days prior to the hearing at 503-823-7300 (TTY 503-823-6868).

Enclosures:
zoning map
site plan
photo simulation
land use hearing participation information

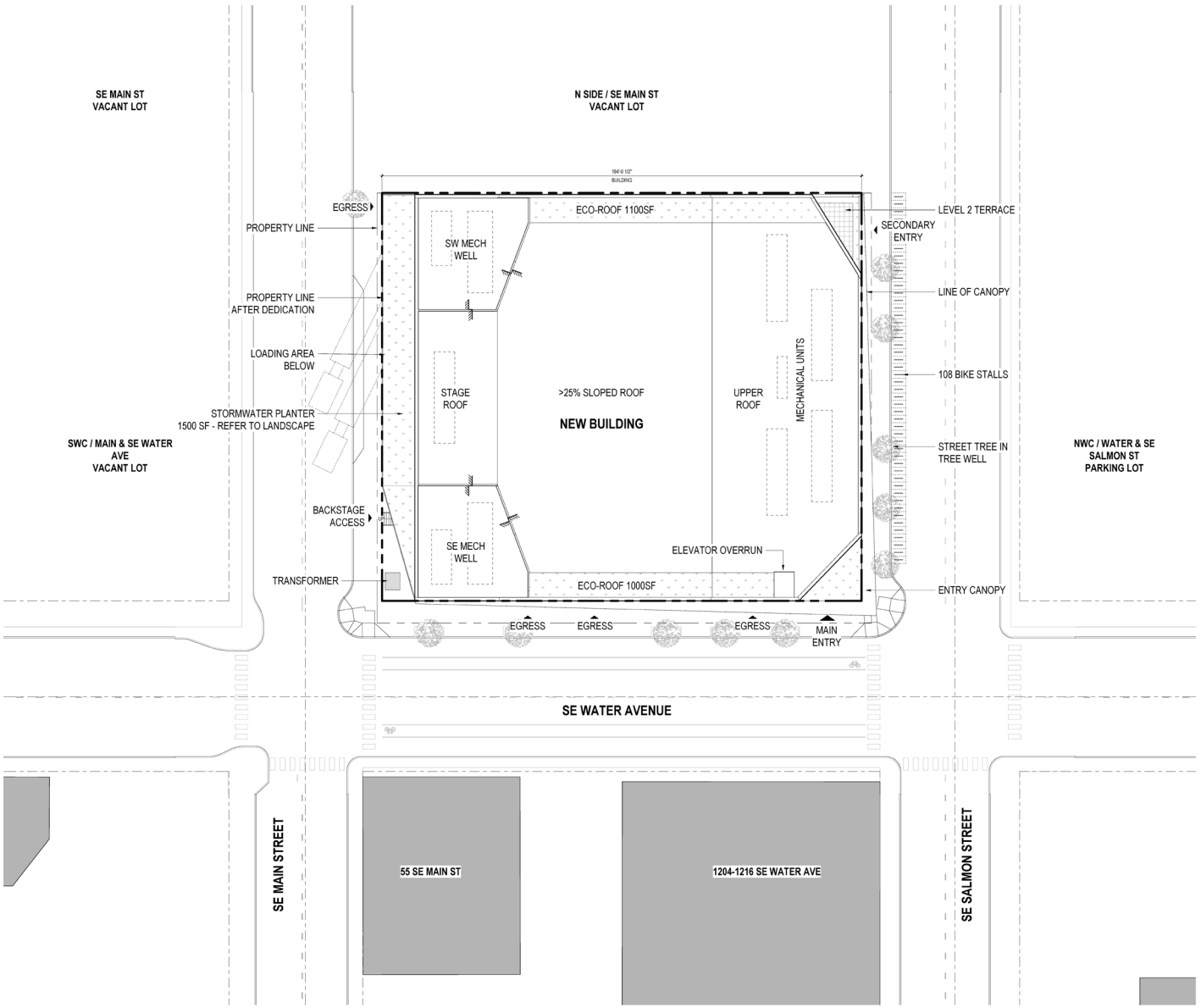
For Zoning Code in Effect Post October 1, 2022

ZONING

THIS SITE LIES WITHIN THE:
CENTRAL CITY PLAN DISTRICT
CENTRAL EASTSIDE SUBDISTRICT

Site
Historic Landmark
Recreational Trails

File No. LU 23 - 111784 CU AD
1/4 Section 3130
Scale 1 inch =200 feet
State ID 1S1E03AD 3602
Exhibit B Jan 16, 2024



1 Z090 ZONING - SITE PLAN
SCALE: 1/16" = 1'-0"

SITE DATA TABLE

SITE AREA:
34,860 SF

SITE AREA AFTER DEDICATION:
32,046 SF

BUILDING COVERAGE:
31,609 SF

TOTAL BUILDING AREA:
98,500 SF

VENUE CAPACITY:
APPROX 3,800 OCCUPANTS

BIKE PARKING TOTALS

(TABLE 266-6 MAJOR EVENT ENTERTAINMENT)

LONG TERM BIKE PARKING:
REQUIRED: 10 PROVIDED:10

SHORT TERM BIKE PARKING:
3800 OCCS / 40
REQUIRED: 95 PROVIDED: 108

CENTRAL EASTSIDE VENUE

NW/MAIN & SE WATER AVE
PORTLAND, OR 97214

ARCHITECT
LEVER
4713 N. Albina Avenue,
4th Floor Portland, OR 97217
T. 503.928.6040
www.leverarchitecture.com

LU 23-111784 CU AD

LU 23-111784 CU AD Exhibit D-4

STAMP

NOT FOR CONSTRUCTION

REVISIONS

PHASE
SCHEMATIC DESIGN

DATE
DECEMBER 21, 2023

PROJECT NUMBER
271

SCALE
As indicated

SHEET TITLE
ZONING - SITE PLAN

Z090

5/23/2024 2:09:08 PM
Autodesk Docs://Central Eastside Venue (CEV)/Arch_CEV_271_R23.rvt


tonight: incididunt ut labore et dolor
LU 23-111784 CU AD

Hearings Office
City of Portland
1900 SW 4th Avenue, Room 3100, Portland, OR 97201 phone: 503.823.7307
www.portland.gov/omf/hearings fax: 503.823.4347
email: HearingsOfficeClerks@portlandoregon.gov

Land Use Hearing Participation Information

Case Number: 23-111784 CU AD
(Hearings Office Case Number 4240010)
Site Address: West Side of SE Water Ave. between SE Salmon St. and SE Main St.
Hearing Date: July 10, 2024
Hearing Time: 1:00 PM

The above-referenced land use hearing will take place via the Zoom platform.

Zoom Participation Options and Instructions

Zoom Option

- You will need an internet connection and a personal computer or other internet capable device.
- You can listen, view the City Planner's PowerPoint presentation, and you have the opportunity to provide oral testimony.
- Instructions:

Go to:
https://us06web.zoom.us/j/83884494460

Telephone Option

- You will need a telephone.
- You will be able to listen and testify but you will not be able to view documents and presentations shared on the Zoom platform (if any).
- Instructions:

Dial: +1 669 900 6833

Meeting ID: 838 8449 4460 #

#

Written Testimony

- Prior to the Hearing and until the close of evidence, you may submit written testimony. In other words, written testimony can be provided up to the close of the record, which will be announced at the hearing.
- *Note: A document's timeliness is determined by the date/time when it is received by the Hearings Office Clerks.*
- Please reference the case number in any documents you wish to submit.
- Instructions/Options:

Online Case Management System
https://www.portland.gov/omf/hearings/land-use

SCAN ME

Email: HearingsOfficeClerks@portlandoregon.gov
Fax: 503-823-4347
Mail: Hearings Office, 1900 SW 4th Avenue, Room 3100,
Portland, OR 97201

View File Contents

We use a fully electronic case file. Your online viewing options are available at our website: https://www.portland.gov/omf/hearings/land-use
If you do not have online access, you may make a written request for a hard copy of any exhibit to be mailed to you.

Meaningful Access

The City of Portland is committed to providing meaningful access.
For accommodations, modifications, translation, interpretation, or other services, please call 503-823-7307, the TTY at 503-823-6868 or the Oregon

Relay Service: 711. Traducción e interpretación | Chuyển Ngữ hoặc Phiên Dịch | 翻译或传译
Письменныйили устный перевод | 翻訳または通訳 | Traducere sau Interpretare 번역 및 통역 | Письмовий або усний переклад | Turjumida ama Fasiraadda|

Questions or Concerns

You may contact the Hearings Clerks via email at HearingsOfficeClerks@portlandoregon.gov or by calling 503-823-7307.

	A	B	C	D	E	F
1	ENDORSEMENT	INFO1	INFO2	NAME	ADDRESS/IO ADDRESS	CITYSTATEZIP/ADDRESSEE
2	RETURN SERVICE REQUESTED		1S1E03AA 5800	BRIX LAW LLP	75 SE YAMHILL ST #202	PORTLAND OR 97214
3	RETURN SERVICE REQUESTED		1S1E03AA 5800	HELLO! GOOD MORNING! LLC	2235 NE 33RD AVE	PORTLAND OR 97212
4	RETURN SERVICE REQUESTED		1S1E03AA 5800	81 YAMHILL INVESTORS LLC	75 SE YAMHILL ST #201	PORTLAND OR 97214
5	RETURN SERVICE REQUESTED		1S1E03AA 5800	BEAM CONSTR & MANAGEMENT LLC	1001 SE WATER AVE #400	PORTLAND OR 97214
6	RETURN SERVICE REQUESTED		1S1E03AA 5800	CARGO INC	81 SE YAMHILL ST	PORTLAND OR 97214
7	RETURN SERVICE REQUESTED		1S1E03AA 5800	URBAN WORKS REAL ESTATE LLC	75 SE YAMHILL ST #203	PORTLAND OR 97214
8	RETURN SERVICE REQUESTED		1S1E03AA 5900	M AND A PROPERTIES LLC	61 SE YAMHILL ST	PORTLAND OR 97214-2134
9	RETURN SERVICE REQUESTED		1S1E03AA 5900	LABYRINTH FORGE BREWING CO LLC	61 SE YAMHILL ST	PORTLAND OR 97214
10	RETURN SERVICE REQUESTED		1S1E03AD 1000	WATER AVENUE PROPERTIES LLC	1001 SE WATER AVE #400	PORTLAND OR 97214
11	RETURN SERVICE REQUESTED		1S1E03AD 1100	KAUTH MICHAEL	2456 NE 7TH AVE	PORTLAND OR 97212
12	RETURN SERVICE REQUESTED		1S1E03AD 1100	CATALYST TRADE INC	79 SE TAYLOR ST #400	PORTLAND OR 97214-2160
13	RETURN SERVICE REQUESTED		1S1E03AD 1100	COLUMBIA GREEN TECHNOLOGIES INC	79 SE TAYLOR ST #201	PORTLAND OR 97214
14	RETURN SERVICE REQUESTED		1S1E03AD 1200	BELLISSIMO INC	9 SE 3RD AVE #100	PORTLAND OR 97214
15	RETURN SERVICE REQUESTED		1S1E03AD 1200	ION STATION EQUIPMENT LLC	PO BOX 80615	INDIANAPOLIS IN 46280
16	RETURN SERVICE REQUESTED		1S1E03AD 1200	WATER AVENUE COFFEE LLC	9 SE 3RD AVE #100	PORTLAND OR 97214
17	RETURN SERVICE REQUESTED		1S1E03AD 1200	BOKE BOWL LLC	1028 SE WATER AVE #120	PORTLAND OR 97214
18	RETURN SERVICE REQUESTED		1S1E03AD 1200	ARCH COMMUNICATIONS GROUP INC	5901 S MACADAM AVE #126	PORTLAND OR 97239
19	RETURN SERVICE REQUESTED		1S1E03AD 1200	BRAVE NEW DAY INC	1028 SE WATER AVE #220	PORTLAND OR 97214
20	RETURN SERVICE REQUESTED		1S1E03AD 1200	BUNK BAR INC	1028 SE WATER AVE #130	PORTLAND OR 97214
21	RETURN SERVICE REQUESTED		1S1E03AD 1200	MONQUI INC	1028 SE WATER AVE #270	PORTLAND OR 97214
22	RETURN SERVICE REQUESTED		1S1E03AD 1200	PACIFIC STAR CORP	PO BOX 230968	TIGARD OR 97281
23	RETURN SERVICE REQUESTED		1S1E03AD 1300	THE LIPPMAN CO INC	50 SE YAMHILL ST	PORTLAND OR 97214
24	RETURN SERVICE REQUESTED		1S1E03AD 1400	ACORN MARKETING	1001 SE WATER AVE #280	PORTLAND OR 97214-2149
25	RETURN SERVICE REQUESTED		1S1E03AD 1400	LEEKA INC	1001 SE WATER AVE #175	PORTLAND OR 97214
26	RETURN SERVICE REQUESTED		1S1E03AD 1400	PAULSON KIMBERLY	3453 NE IRVING ST	PORTLAND OR 97232-2579
27	RETURN SERVICE REQUESTED		1S1E03AD 1400	EASTBANK COMMERCE CENTER LLC	1001 SE WATER AVE #400	PORTLAND OR 97214
28	RETURN SERVICE REQUESTED		1S1E03AD 1400	AFTON LLC	581 LANCASTER DR SE #691	SALEM OR 97317
29	RETURN SERVICE REQUESTED		1S1E03AD 1400	CLARITY INNOVATIONS INC	160 NE 6TH AVE #300	PORTLAND OR 97232
30	RETURN SERVICE REQUESTED		1S1E03AD 1400	LAUNDRY STUDIO LLC	1001 SE WATER AVE #220	PORTLAND OR 97214
31	RETURN SERVICE REQUESTED		1S1E03AD 1400	MONA LISA INC	1001 SE WATER AVE #140	PORTLAND OR 97214-2172
32	RETURN SERVICE REQUESTED		1S1E03AD 1400	WATCHFIRE LLC	1001 SE WATER AVE #165	PORTLAND OR 97214
33	RETURN SERVICE REQUESTED		1S1E03AD 1401	OREGON STATE OF	411 TRANSPORTATION BLDG	SALEM OR 97310
34	RETURN SERVICE REQUESTED		1S1E03AD 1600	DEPARTMENT OF TRANSPORTATION	4040 FAIRVIEW INDUSTRIAL DR SE MS#2	SALEM OR 97302-1142
35	RETURN SERVICE REQUESTED	1S1E03AD 1708 DEPT OF TRANSP	EASTBANK COMMERCE CENTER ATTN	PRPTY MNGMT #52846 EASTBANK	4040 FAIRVIEW INDUSTRIAL DR SE MS#2	SALEM OR 97302-1142
36	RETURN SERVICE REQUESTED		1S1E03AD 1800	EMPIRE RUBBER & SUPPLY CO	80 SE TAYLOR ST	PORTLAND OR 97214-2117
37	RETURN SERVICE REQUESTED		1S1E03AD 1800	EMPIRE RUBBER & SUPPLY CO INC	PO BOX 14950	PORTLAND OR 97293
38	RETURN SERVICE REQUESTED		1S1E03AD 1900	110 SE TAYLOR LLC	1230 SW 1ST AVE #201	PORTLAND OR 97204
39	RETURN SERVICE REQUESTED		1S1E03AD 1900	LINDCO INC	PO BOX 3708	PORTLAND OR 97208-3708
40	RETURN SERVICE REQUESTED		1S1E03AD 2000	COHO CROSSING LLC	823 SE 3RD AVE	PORTLAND OR 97214
41	RETURN SERVICE REQUESTED		1S1E03AD 3200	MULTNOMAH LAW LIBRARY	1021 SW 4TH AVE #442	PORTLAND OR 97204
42	RETURN SERVICE REQUESTED		1S1E03AD 3200	SPOON FOUNDATION	135 SE MAIN ST #201	PORTLAND OR 97214
43	RETURN SERVICE REQUESTED		1S1E03AD 3200	STUMPTOWN COFFEE CORP	100 SE SALMON ST	PORTLAND OR 97214-3370
44	RETURN SERVICE REQUESTED		1S1E03AD 3200	KALBERER COMPANY	321 SW 4TH AVE #800	PORTLAND OR 97204-2330
45	RETURN SERVICE REQUESTED		1S1E03AD 3300	BURBACK MOTORS INC	71 SE MAIN ST	PORTLAND OR 97214
46	RETURN SERVICE REQUESTED		1S1E03AD 3300	NORPAC MAIN LLC	PO BOX 820570	VANCOUVER WA 98682
47	RETURN SERVICE REQUESTED		1S1E03AD 3300	REACHOUT EXPEDITIONS	PO BOX 19743	PORTLAND OR 97280-0743
48	RETURN SERVICE REQUESTED		1S1E03AD 3400	55 MAIN STREET LLC	5611 NE COLUMBIA BLVD	PORTLAND OR 97218
49	RETURN SERVICE REQUESTED		1S1E03AD 3400	THE DESIGN CENTER INC	55 SE MAIN ST	PORTLAND OR 97214
50	RETURN SERVICE REQUESTED		1S1E03AD 3500	SLOWFIRE INC	1201 SE 3RD AVE	PORTLAND OR 97214
51	RETURN SERVICE REQUESTED		1S1E03AD 3500	P & L WATER AVENUE LLC	2807 SE ASH ST	PORTLAND OR 97214
52	RETURN SERVICE REQUESTED	1S1E03AD 3700	OREGON STATE OF DEPT OF TRANSP	PORTLAND DEV COMM ATTN PROP MGMT	4040 FAIRVIEW INDUSTRIAL DR SE MS#2	SALEM OR 97303-1142
53	RETURN SERVICE REQUESTED		1S1E03AD 3800	OREGON STATE DEPT OF TRANSPORTATION	725 SUMMER ST #C	SALEM OR 97301-1266
54	RETURN SERVICE REQUESTED		1S1E03AD 3900	PORTLAND CITY OF	55 SW ASH ST	PORTLAND OR 97204-3509
55	RETURN SERVICE REQUESTED		1S1E03AD 4303	OREGON STATE OF	4040 FAIRVIEW INDUSTRIAL DR SE	SALEM OR 97302-1142
56	RETURN SERVICE REQUESTED		1S1E03AD 4400	BET WATER AVE LLC	25300 SW PARKWAY AVE	WILSONVILLE OR 97070
57	RETURN SERVICE REQUESTED		1S1E03AD 4400	A & F COLLISION LLC	50 SE MAIN ST	PORTLAND OR 97214
58	RETURN SERVICE REQUESTED		1S1E03AD 4500	LPM PROPERTIES LLC	60 SE MAIN ST	PORTLAND OR 97214
59	RETURN SERVICE REQUESTED		1S1E03AD 4500	OFF THE WALL MAGNETICS LLC	888 SW 5TH AVE #800	PORTLAND OR 97204
60	RETURN SERVICE REQUESTED		1S1E03AD 4600	HUMBER DESIGN GROUP INC	110 SE MAIN ST #200	PORTLAND OR 97214-5276
61	RETURN SERVICE REQUESTED		1S1E03AD 4600	GREENWORKS PC	110 SE MAIN ST #100	PORTLAND OR 97214-5276
62	RETURN SERVICE REQUESTED		1S1E03AD 4600	SE 2ND & MAIN LLC	4800 S MACADAM AVE #120	PORTLAND OR 97239
63	RETURN SERVICE REQUESTED		1S1E03AD 4800	PORTLAND CEMENT BUILDING LLC	4015 SE PINE ST	PORTLAND OR 97214
64	RETURN SERVICE REQUESTED		1S1E03AD 6300	DENNIS UNIFORM MFG CO INC	135 SE HAWTHORNE BLVD	PORTLAND OR 97214
65	RETURN SERVICE REQUESTED		1S1E03AD 6300	SHIPLEY DAVID J ET AL	135 SE HAWTHORNE BLVD	PORTLAND OR 97214
66	RETURN SERVICE REQUESTED		1S1E03AD 6400	GUARANTEED RATE INC	3940 N RAVENSWOOD AVE	CHICAGO IL 60613
67	RETURN SERVICE REQUESTED		1S1E03AD 6400	80 SE MADISON LLC	819 SE MORRISON ST #110	PORTLAND OR 97214-6308
68	RETURN SERVICE REQUESTED		1S1E03AD 6400	HEALTH NOTES INC	80 SE MADISON ST #410	PORTLAND OR 97214
69	RETURN SERVICE REQUESTED		1S1E03AD 6500	MADISON WATER LLC	819 SE MORRISON ST #110	PORTLAND OR 97214
70	RETURN SERVICE REQUESTED		1S1E03AD 6600	1420 WATER LLC	1615 SE 3RD AVE #100	PORTLAND OR 97214
71	RETURN SERVICE REQUESTED		1S1E03AD 6700	EVERGREENS INC	1200 WESTLAKE AVE N #210	SEATTLE WA 98109-3528
72	RETURN SERVICE REQUESTED		1S1E03AD 6700	PITMAN PROPERTIES III LLC	1535 SE 3RD AVE	PORTLAND OR 97214-3347
73	RETURN SERVICE REQUESTED		1S1E03AD 6700	NORANEKO LLC	215 SE 9TH AVE #102	PORTLAND OR 97214

	A	B	C	D	E	F
74	RETURN SERVICE REQUESTED		1S1E03AD 6700	PIONEER GAS FURNACE NORTHWEST INC	1430 SE WATER AVE #202	PORTLAND OR 97214
75	RETURN SERVICE REQUESTED		1S1E03AD 6800	MULTNOMAH COUNTY BRIDGE DEPARTMENT	401 N DIXON ST	PORTLAND OR 97227-1865
76	RETURN SERVICE REQUESTED		1S1E03AD 6900	MULTNOMAH COUNTY	2115 SE MORRISON ST	PORTLAND OR 97214-2865
77	RETURN SERVICE REQUESTED	1S1E03AD 7100	OREGON STATE OF DEPT OF TRANSP	PORTLAND DEVELOPMENT COMMISSION	9200 SE LAWNFIELD RD	CLACKAMAS OR 97015
78	RETURN SERVICE REQUESTED		1S1E03AD 7200	OREGON STATE OF LEASE DIST 2B	9200 SE LAWNFIELD RD	CLACKAMAS OR 97015-8685
79	RETURN SERVICE REQUESTED	PORTLAND CITY OF	EASTBANK COMMERCE CENTER LLC	BEAM CONSTRUCTION & MANAGEMENT LLC	75 SE YAMHILL ST #201	PORTLAND OR 97214
80	RETURN SERVICE REQUESTED		1S1E03AD 800	TEAM RON INCORPORATED	117 SE TAYLOR ST #102	PORTLAND OR 97214
81	RETURN SERVICE REQUESTED		1S1E03AD 800	CEID HOLDINGS LLC	PO BOX 12145	PORTLAND OR 97212-0145
82	RETURN SERVICE REQUESTED		1S1E03AD 900	BRUUN KELLY C TR	3611 SE 20TH AVE #300	PORTLAND OR 97202
83	RETURN SERVICE REQUESTED		1S1E03DA 1100	HAWTHORNE DEPOT LLC (5372)	1615 SE 3RD AVE #100	PORTLAND OR 97214
84	RETURN SERVICE REQUESTED		1S1E03DA 1200	PORTLAND TRACTION CO	1640 SE WATER AVE	PORTLAND OR 97214
85	RETURN SERVICE REQUESTED		1S1E03DA 1300	VIEWPOINT INC	PO BOX 3642510 DE GUIGNE DR	SUNNYVALE CA 94085
86	RETURN SERVICE REQUESTED		1S1E03DA 1400	MACKENZIE ENGINEERING INC	PO BOX 14310	PORTLAND OR 97293
87	RETURN SERVICE REQUESTED		1S1E03DA 1400	STATION L ROWING CLUB	PO BOX 14035	PORTLAND OR 97293
88	RETURN SERVICE REQUESTED	1S1E03DA 1400	OREGON STATE OF RIVERS EAST	INVESTOR LLC ATTN GVA KIDDER MATHEWS	1 SW COLUMBIA ST #950	PORTLAND OR 97204-4010
89	RETURN SERVICE REQUESTED		1S1E03DA 1400	ROSE CITY ROWING CLUB	1327 SE TACOMA ST PMB 224	PORTLAND OR 97202-6639
90	RETURN SERVICE REQUESTED		1S1E03DA 1400	RIVER EAST INVESTOR LLC	33 ARCH ST 26TH FLOOR	BOSTON MA 02110
91	RETURN SERVICE REQUESTED		1S1E03DA 1400	WASABI PADDLING CLUB	PO BOX 8217	PORTLAND OR 97207
92	RETURN SERVICE REQUESTED		1S1E03DA 1400	WILLAMETTE RIVERKEEPER	1515 SE WATER AVE #102	PORTLAND OR 97214-3349
93	RETURN SERVICE REQUESTED		1S1E03DA 1400	UNIVERSITY OF PORTLAND	5000 N WILLAMETTE BLVD	PORTLAND OR 97203
94				CURRENT RESIDENT	1001 SE WATER AVE #132	PORTLAND OR 97214
95				CURRENT RESIDENT	1001 SE WATER AVE #160	PORTLAND OR 97214
96				CURRENT RESIDENT	1001 SE WATER AVE #180	PORTLAND OR 97214
97				CURRENT RESIDENT	1001 SE WATER AVE #223	PORTLAND OR 97214
98				CURRENT RESIDENT	1001 SE WATER AVE #224	PORTLAND OR 97214
99				CURRENT RESIDENT	1001 SE WATER AVE #237	PORTLAND OR 97214
100				CURRENT RESIDENT	1001 SE WATER AVE #255	PORTLAND OR 97214
101				CURRENT RESIDENT	1001 SE WATER AVE #290	PORTLAND OR 97214
102				CURRENT RESIDENT	1001 SE WATER AVE #320	PORTLAND OR 97214
103				CURRENT RESIDENT	1001 SE WATER AVE #350	PORTLAND OR 97214
104				CURRENT RESIDENT	1001 SE WATER AVE #420	PORTLAND OR 97214
105				CURRENT RESIDENT	1001 SE WATER AVE #450	PORTLAND OR 97214
106				CURRENT RESIDENT	1001 SE WATER AVE #455	PORTLAND OR 97214
107				CURRENT RESIDENT	1016 SE WATER AVE	PORTLAND OR 97214
108				CURRENT RESIDENT	1028 SE WATER AVE #225	PORTLAND OR 97214
109				CURRENT RESIDENT	1028 SE WATER AVE #235	PORTLAND OR 97214
110				CURRENT RESIDENT	1028 SE WATER AVE #260	PORTLAND OR 97214
111				CURRENT RESIDENT	1028 SE WATER AVE #265	PORTLAND OR 97214
112				CURRENT RESIDENT	105 SE TAYLOR ST	PORTLAND OR 97214
113				CURRENT RESIDENT	109 SE SALMON ST #B	PORTLAND OR 97214
114				CURRENT RESIDENT	110 SE TAYLOR ST #D	PORTLAND OR 97214
115				CURRENT RESIDENT	111 SE MADISON ST #B	PORTLAND OR 97214
116				CURRENT RESIDENT	119 SE MAIN ST #101	PORTLAND OR 97214
117				CURRENT RESIDENT	119 SE MAIN ST #201	PORTLAND OR 97214
118				CURRENT RESIDENT	45 SE TAYLOR ST	PORTLAND OR 97214
119				CURRENT RESIDENT	66 SE MADISON ST	PORTLAND OR 97214
120				CURRENT RESIDENT	79 SE TAYLOR ST #100	PORTLAND OR 97214
121				CURRENT RESIDENT	80 SE MADISON ST #210	PORTLAND OR 97214
122				CURRENT RESIDENT	1001 SE WATER AVE #190	PORTLAND OR 97214
123				CURRENT RESIDENT	1001 SE WATER AVE #217	PORTLAND OR 97214
124				CURRENT RESIDENT	1001 SE WATER AVE #244	PORTLAND OR 97214
125				CURRENT RESIDENT	1001 SE WATER AVE #245	PORTLAND OR 97214
126				CURRENT RESIDENT	1001 SE WATER AVE #247	PORTLAND OR 97214
127				CURRENT RESIDENT	1001 SE WATER AVE #262	PORTLAND OR 97214
128				CURRENT RESIDENT	1001 SE WATER AVE #285	PORTLAND OR 97214
129				CURRENT RESIDENT	1001 SE WATER AVE #300	PORTLAND OR 97214
130				CURRENT RESIDENT	1001 SE WATER AVE #310	PORTLAND OR 97214
131				CURRENT RESIDENT	1001 SE WATER AVE #340	PORTLAND OR 97214
132				CURRENT RESIDENT	1001 SE WATER AVE #360	PORTLAND OR 97214
133				CURRENT RESIDENT	1001 SE WATER AVE #370	PORTLAND OR 97214
134				CURRENT RESIDENT	1001 SE WATER AVE #410	PORTLAND OR 97214
135				CURRENT RESIDENT	1001 SE WATER AVE #430	PORTLAND OR 97214
136				CURRENT RESIDENT	1001 SE WATER AVE #435	PORTLAND OR 97214
137				CURRENT RESIDENT	1001 SE WATER AVE #460	PORTLAND OR 97214
138				CURRENT RESIDENT	1028 SE WATER AVE #230	PORTLAND OR 97214
139				CURRENT RESIDENT	1028 SE WATER AVE #238	PORTLAND OR 97214
140				CURRENT RESIDENT	1028 SE WATER AVE #286	PORTLAND OR 97214
141				CURRENT RESIDENT	109 SE SALMON ST #101	PORTLAND OR 97214
142				CURRENT RESIDENT	109 SE SALMON ST #A	PORTLAND OR 97214
143				CURRENT RESIDENT	110 SE MAIN ST #A	PORTLAND OR 97214
144				CURRENT RESIDENT	110 SE TAYLOR ST #A	PORTLAND OR 97214
145				CURRENT RESIDENT	110 SE TAYLOR ST #B	PORTLAND OR 97214
146				CURRENT RESIDENT	117 SE TAYLOR ST #201	PORTLAND OR 97214

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147				CURRENT RESIDENT	117 SE TAYLOR ST #301	PORTLAND OR 97214
148				CURRENT RESIDENT	135 SE MAIN ST #102	PORTLAND OR 97214
149				CURRENT RESIDENT	1420 SE WATER AVE	PORTLAND OR 97214
150				CURRENT RESIDENT	1430 SE WATER AVE #203	PORTLAND OR 97214
151				CURRENT RESIDENT	1430 SE WATER AVE #206	PORTLAND OR 97214
152				CURRENT RESIDENT	1430 SE WATER AVE #207	PORTLAND OR 97214
153				CURRENT RESIDENT	1433 SE WATER AVE	PORTLAND OR 97214
154				CURRENT RESIDENT	1515 SE WATER AVE #101	PORTLAND OR 97214
155				CURRENT RESIDENT	1515 SE WATER AVE #103	PORTLAND OR 97214
156				CURRENT RESIDENT	1515 SE WATER AVE #201	PORTLAND OR 97214
157				CURRENT RESIDENT	5 SE MADISON ST	PORTLAND OR 97214
158				CURRENT RESIDENT	60 SE MADISON ST	PORTLAND OR 97214
159				CURRENT RESIDENT	79 SE TAYLOR ST #402	PORTLAND OR 97214
160				CURRENT RESIDENT	80 SE MADISON ST #6	PORTLAND OR 97214
161				CURRENT RESIDENT	1001 SE WATER AVE #110	PORTLAND OR 97214
162				CURRENT RESIDENT	1001 SE WATER AVE #130	PORTLAND OR 97214
163				CURRENT RESIDENT	1001 SE WATER AVE #135	PORTLAND OR 97214
164				CURRENT RESIDENT	1001 SE WATER AVE #205	PORTLAND OR 97214
165				CURRENT RESIDENT	1001 SE WATER AVE #230	PORTLAND OR 97214
166				CURRENT RESIDENT	1001 SE WATER AVE #250	PORTLAND OR 97214
167				CURRENT RESIDENT	1001 SE WATER AVE #305	PORTLAND OR 97214
168				CURRENT RESIDENT	1001 SE WATER AVE #390	PORTLAND OR 97214
169				CURRENT RESIDENT	1001 SE WATER AVE #440	PORTLAND OR 97214
170				CURRENT RESIDENT	1001 SE WATER AVE #490	PORTLAND OR 97214
171				CURRENT RESIDENT	1028 SE WATER AVE #140	PORTLAND OR 97214
172				CURRENT RESIDENT	1028 SE WATER AVE #145	PORTLAND OR 97214
173				CURRENT RESIDENT	1028 SE WATER AVE #210	PORTLAND OR 97214
174				CURRENT RESIDENT	1028 SE WATER AVE #240	PORTLAND OR 97214
175				CURRENT RESIDENT	1028 SE WATER AVE #245	PORTLAND OR 97214
176				CURRENT RESIDENT	1028 SE WATER AVE #50	PORTLAND OR 97214
177				CURRENT RESIDENT	105 SE HAWTHORNE BLVD	PORTLAND OR 97214
178				CURRENT RESIDENT	111 SE MADISON ST #A	PORTLAND OR 97214
179				CURRENT RESIDENT	117 SE TAYLOR ST #2	PORTLAND OR 97214
180				CURRENT RESIDENT	119 SE MAIN ST #202	PORTLAND OR 97214
181				CURRENT RESIDENT	119 SE MAIN ST #203	PORTLAND OR 97214
182				CURRENT RESIDENT	119 SE MAIN ST #206	PORTLAND OR 97214
183				CURRENT RESIDENT	1216 SE WATER AVE	PORTLAND OR 97214
184				CURRENT RESIDENT	135 SE MAIN ST #101	PORTLAND OR 97214
185				CURRENT RESIDENT	1450 SE WATER AVE	PORTLAND OR 97214
186				CURRENT RESIDENT	1515 SE WATER AVE #104	PORTLAND OR 97214
187				CURRENT RESIDENT	1515 SE WATER AVE #300	PORTLAND OR 97214
188				CURRENT RESIDENT	1515 SE WATER AVE #402	PORTLAND OR 97214
189				CURRENT RESIDENT	49 SE CLAY ST	PORTLAND OR 97214
190				CURRENT RESIDENT	77 SE YAMHILL ST	PORTLAND OR 97214
191				CURRENT RESIDENT	1001 SE WATER AVE #121	PORTLAND OR 97214
192				CURRENT RESIDENT	1001 SE WATER AVE #122	PORTLAND OR 97214
193				CURRENT RESIDENT	1001 SE WATER AVE #200	PORTLAND OR 97214
194				CURRENT RESIDENT	1001 SE WATER AVE #210	PORTLAND OR 97214
195				CURRENT RESIDENT	1001 SE WATER AVE #236	PORTLAND OR 97214
196				CURRENT RESIDENT	1001 SE WATER AVE #240	PORTLAND OR 97214
197				CURRENT RESIDENT	1001 SE WATER AVE #246	PORTLAND OR 97214
198				CURRENT RESIDENT	1001 SE WATER AVE #260	PORTLAND OR 97214
199				CURRENT RESIDENT	1010 SE WATER AVE	PORTLAND OR 97214
200				CURRENT RESIDENT	1028 SE WATER AVE #250	PORTLAND OR 97214
201				CURRENT RESIDENT	1028 SE WATER AVE #255	PORTLAND OR 97214
202				CURRENT RESIDENT	1028 SE WATER AVE #275	PORTLAND OR 97214
203				CURRENT RESIDENT	1028 SE WATER AVE #280	PORTLAND OR 97214
204				CURRENT RESIDENT	1028 SE WATER AVE #285	PORTLAND OR 97214
205				CURRENT RESIDENT	109 SE SALMON ST #C	PORTLAND OR 97214
206				CURRENT RESIDENT	110 SE MAIN ST #C	PORTLAND OR 97214
207				CURRENT RESIDENT	116 SE YAMHILL ST	PORTLAND OR 97214
208				CURRENT RESIDENT	1221 SE WATER AVE	PORTLAND OR 97214
209				CURRENT RESIDENT	1430 SE WATER AVE #204	PORTLAND OR 97214
210				CURRENT RESIDENT	1510 SE WATER AVE	PORTLAND OR 97214
211				CURRENT RESIDENT	1515 SE WATER AVE #400	PORTLAND OR 97214
212				CURRENT RESIDENT	79 SE TAYLOR ST #401	PORTLAND OR 97214
213	RETURN SERVICE REQUESTED		OWNER	PDC DBA PROSPER PORTLAND	220 NW 2ND AVE #200	PORTLAND OR 97209
214	RETURN SERVICE REQUESTED	OWNERS AGENT	PDC DBA PROSPER PORTLAND	GAGLIARDI PAUL	222 NW 5TH AVE	PORTLAND OR 97209-3812
215	RETURN SERVICE REQUESTED	APPLICANT	BEAM DEVELOPMENT	MALSIN JONATHAN	1001 SE WATER AVE #400	PORTLAND OR 97214
216	RETURN SERVICE REQUESTED	CONTACT PERSON	MACKENZIE	STANLEY SUZANNAH	1515 SE WATER AVE #100	PORTLAND OR 97214
217	RETURN SERVICE REQUESTED		NEIGHBORS WEST-NORTHWEST	GARRETT DARLENE URBAN	434 NW 6TH AVE #202	PORTLAND OR 97209
218	RETURN SERVICE REQUESTED		PORTLAND DOWNTOWN NA	DEBARDELABEN MARIAN	434 NW 6TH AVE #202	PORTLAND OR 97209
219	RETURN SERVICE REQUESTED		LAND USE CONTACT	SE UPLIFT NEIGHBORHOOD PROGRAM	3534 SE MAIN ST	PORTLAND OR 97214

	A	B	C	D	E	F
220	RETURN SERVICE REQUESTED		DOWNTOWN RETAIL COUNCIL	MEAD SYDNEY	121 SW SALMON ST #1440	PORTLAND OR 97201
221	RETURN SERVICE REQUESTED		LAND USE CONTACT	PIONEER COURTHOUSE SQ	715 SW MORRISON #702	PORTLAND OR 97205
222	RETURN SERVICE REQUESTED		BUCKMAN COMMUNITY ASSOCIATION	OLSON NICK C/O SEUL	3534 SE MAIN ST	PORTLAND OR 97214
223	RETURN SERVICE REQUESTED		LAND USE CONTACT	CENTRAL CITY CONCERN	232 NW 6TH AVE	PORTLAND OR 97209
224	RETURN SERVICE REQUESTED		HOSFORD-ABERNETHY NEIGHBORHOOD DIST	(HAND) WADE MICHAEL C/O SEUL	3534 SE MAIN ST	PORTLAND OR 97214
225	RETURN SERVICE REQUESTED		PORTLAND METRO REGIONAL SOLUTIONS	C/O DLCD REGIONAL REPRESENTATIVE	1600 SW FOURTH AVE #109	PORTLAND OR 97201
226	RETURN SERVICE REQUESTED		LAND USE CONTACT	PORT OF PORTLAND PLANNING	PO BOX 3529	PORTLAND OR 97208
227	RETURN SERVICE REQUESTED		LAND USE CONTACT	TRANSIT DEVELOPMENT	1800 SW FIRST AVE #300	PORTLAND OR 97201
228	RETURN SERVICE REQUESTED			KARLA MOORE-LOVE (CITY HALL)	1221 SW 4TH AVE #130	PORTLAND OR 97204
229	RETURN SERVICE REQUESTED		RISK & LAND DEPARTMENT	NW NATURAL	250 SW TAYLOR ST	PORTLAND OR 97204-3038
230	RETURN SERVICE REQUESTED		LAND USE CONTACT	PACIFIC POWER & LIGHT	7544 NE 33RD DR	PORTLAND OR 97211
231	RETURN SERVICE REQUESTED		LAND USE CONTACT	JUDY PETERS	6916 NE 40TH ST	VANCOUVER WA 98661
232	RETURN SERVICE REQUESTED		MULT CO BRIDGE - 100 FOOT BUFFER	MULTNOMAH COUNTY BRIDGES	1403 SE WATER AVENUE	PORTLAND OR 97217
233	RETURN SERVICE REQUESTED		PORTLAND SCHOOL DISTRICT	LAND USE NOTICE CONTACT	501 N DIXON	PORTLAND OR 97227
234				LAND USE CONTACT	PORTLAND POLICE BUREAU	B119/R1552
235				LAND USE CONTACT	PROSPER PORTLAND	129/PROSPER
236				PORTLAND PARK TRAIL	TATE WHITE	B106/R1302
237					COMMUNICATIONS MANAGER (911/COMM)	911/COMM

CITY OF PORTLAND
ENVIRONMENTAL SERVICES

1120 SW Fifth Ave, Suite 613, Portland, Oregon 97204 ▪ Mingus Mapps, Commissioner ▪ Dawn Uchiyama, Director

Land Use Response

Date: June 21, 2024

To: Andrew Gulizia, BDS Land Use Services
503-865-6714, Andrew.Gulizia@portlandoregon.gov

From: Ella Ruth, BES Systems Development
503-823-8068, Ella.Ruth@portlandoregon.gov

Case File: LU 23-111784

Location: SE WATER AVE

R#: R673490, R673495, R673527, R673495

Proposal: HO HEARING: The applicant proposes to construct a new, 62,000-square-foot building on this site to be used as a concert venue with 1,280 seats and a maximum spectator capacity of 3,500. The applicant requests Conditional Use Review approval for a new Major Event Entertainment use in the IG1 zone. Type III Conditional Use Review is required by Zoning Code Sections 33.140.100.C and 33.815.040.A.1.The applicant also requests approval of three Adjustments to Zoning Code requirements for this project:¿ To reduce the minimum number of on-site, short-term bike parking spaces from 32 to zero (Zoning Code Section 33.266.200.B.1). The applicant proposes to install more than 32 bike parking spaces in the public right-of-way adjacent to the site subject to approval by the Portland Bureau of Transportation. However, bike parking in the public right-of-way does not count toward the Zoning Code requirement.¿ To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c). The applicant proposes to create 2 truck loading spaces which are primarily in the public right-of-way adjacent to the site subject to approval by the Portland Bureau of Transportation. However, loading areas in the public right-of-way do not count toward the Zoning Code requirement. ¿ To reduce the amount of ecoroof area required from 14,617 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 2,100 square feet (Zoning Code Section 33.510.243.B.1).

The following comments are based on the land use review plans and documents provided to the Bureau of Environmental Services (BES). Some references to Portland City Code (PCC) are included below; the applicant may also refer to the Auditor's Office Online Charter and Code page.

A. Response Summary

BES does not object to approval of the Conditional Use application. The proposed development will be subject to BES standards and requirements during the permit review process.

The requested adjustment does not appear to have an impact on the ability to manage stormwater per the City of Portland Stormwater Management Manual (SWMM) requirements. Therefore, BES does not object to the requested adjustment. Note that there are no BES-specific approval criteria in adjustment reviews; the information in this memo has been provided to assist BDS Land Use Services with review of the relevant approval criteria. The proposed development will be subject to BES standards and requirements during the permit review process.

B. Sanitary Service

For the conditional use application to be approved, the applicant must show that the proposal complies with the public services approval criterion related to sanitary waste disposal (PCC 33.815.215.A.4). The comments below are in response to this criterion.

1. *Existing Sanitary Infrastructure*: According to available GIS data, the following sewer infrastructure is located in the vicinity of the project site:

a. Public 12-inch concrete sanitary-only sewer in SE Water Avenue (BES as-built # 21836).

2. *Service Availability*: Sanitary connections from private property that are to be permitted according to PCC 17.32.090 must be separately conveyed to the property line and connected through individual laterals to a City sanitary or combined sewer. All discharge must be connected via a route of service approved by the BES Chief Engineer.

   a. *Proposed Development*: The development will be served by a new connection to the sewer in SE Water Ave within its frontage.

3. *Connection Requirements*: Connections to the City sewer system must meet the standards of the City of Portland's Sewer and Drainage Facilities Design Manual, PCC 17.32.090, administrative rules ENB-4.07 and ENB-4.17, and all other relevant City codes and rules. Sanitary sewage from private property must be separately conveyed to the property line and connected through individual laterals for discharge to the City separate sanitary or combined sewer. Per ENB-4.07, sewer connection permits are required to make new connections to City mains and laterals, relocate or upsize existing laterals, and repair sewers in City right-of-way. The permittee is responsible for verifying the location, depth and size of an existing sewer lateral and for ensuring the lateral is clear of obstructions prior to connection.

Staff finds the applicant's proposed sanitary sewer service acceptable for the purpose of reviewing the conditional use application against the sanitary sewer disposal approval criterion.

C. STORMWATER MANAGEMENT

For the conditional use application to be approved, the applicant must show that the proposal complies with the public services approval criterion related to stormwater disposal (PCC 33.815. 215.A.4). The comments below are in response to this criterion.

1. *Existing Stormwater Infrastructure*: According to available GIS data, the following stormwater infrastructure is located in the vicinity of the project site:

   a. Public 8-inch concrete storm-only sewer in SE Main Street (BES as-built # unknown).

   b. Public 18-inch concrete storm-only sewer in SE Water Ave (BES as-built #4219).

2. *General Stormwater Management Requirements*: Development and redevelopment sites that include any of the triggers listed in PCC 17.38.040 are subject to the policies and standards of PCC 17.38.035, Portland's Stormwater Management Manual (SWMM) and Source Control Manual (SCM). Projects must comply with the current adopted version of the SWMM as of the permit application date. A fundamental evaluation factor in the SWMM is the Stormwater Infiltration and Discharge Hierarchy (Section 1.3.3), which sets the framework that will be used to determine when a project's stormwater runoff must be infiltrated onsite and when offsite discharge will be permitted, and the parameters that must be met for either scenario. If tested infiltration rates on a property are greater than or equal to 2 inches per hour, onsite infiltration will be required unless the site qualifies for the ecoroof exception per Section 3.2.1 or infiltration is determined infeasible based on site conditions described in Chapter 2 of the SWMM. Note that maximum building coverage allowed by the zoning code, including below grade development, does not exempt the applicant from stormwater requirements. Pollution reduction and flow control requirements must be met using vegetated facilities to the maximum extent feasible, though roof runoff and some paved impervious surfaces are exempt when discharging directly to a UIC (refer to Sections 1.3.2, 1.3.4, 3.2.4 and 4.2.2 of the SWMM).

3. *Private Property Stormwater Management*: Stormwater runoff from this project must comply with all applicable standards of the SWMM and SCM and be conveyed to a discharge point along a route of service approved by the BES Director or the Director's designee. Staff reviewed the submitted stormwater report from Vega Civil (May 22, 2024). Onsite infiltration is prohibited on this site due to site contamination concerns. The applicant proposes for

runoff from the development to be discharged offsite to the storm sewer after pollution reduction and flow and volume control standards are met with an elevated flow through planter sized per the Presumptive Approach.

4. *Public Right-of-Way Stormwater Management*: Stormwater runoff from public right-of-way improvements as required by the City of Portland Bureau of Transportation (PBOT) must be managed according to the standards of the SWMM and the Sewer and Drainage Facilities Design Manual.

    a. PBOT requires construction, expansion or replacement of sidewalk behind the existing curbs, which qualifies for payment of an offsite management fee-in-lieu of building public stormwater facilities. The applicant has indicated the intent to pay the offsite management fee. Therefore, no public stormwater facilities will be built for the qualifying frontage. This information is adequate for the purpose of this land use review. However, if the applicant decides at a future stage to build facilities instead of paying the offsite management fee, this change may impact right-of-way dedication amounts and/or necessitate revisions to the land use decision or Public Works Permit. Payment of the offsite management fee will occur with the Public Works Permit.

Staff finds the applicant's proposed stormwater management plan acceptable for the purpose of reviewing the conditional use application against the stormwater management approval criterion.

D. CONDITIONS OF APPROVAL

BES has no recommended conditions of approval.

E. PERMIT INFORMATION

At the time of permit review the applicant should be aware of the following:

1. *Connection Fees*: Sewer system development charges and connection fees are assessed at the time of building plan review and change every fiscal year on July 1st. For additional information on these fees use the BDS Online Fee Estimator or call the BES Development Review Team at 503-823-7761, option 2.
2. *Building Plans*: Building plans for this project must include a detailed site utility plan which shows proposed and existing sanitary connections, as well as stormwater management that meets the requirements of the version of the SWMM that is in effect at the time permit applications are submitted.
3. *UIC Registration*: The Oregon Department of Environmental Quality (DEQ) regulates underground injection control (UIC) facilities to protect groundwater. Drywells and soakage trenches are examples of UICs. It is the applicant's responsibility to register all onsite UICs with DEQ, as appropriate. To learn more visit DEQ's website or contact the DEQ UIC Program at 503-229-5623. The SWMM also includes general UIC information.
4. *Source Control Requirements*: Source control requirements from the Source Control Manual (SCM), Portland City Code (PCC) Title 17, and BES Administrative Rules that may be applicable to this project are listed below with the corresponding chapter, section, code, and/or rule. For specific questions on the following, please contact BES Source Control at 503-823-7122. BES recommends that requirements related to site contamination be addressed prior to building permit reviews to help avoid potentially long delays.

    a. *Site Use and Activity-Based Source Control Requirements (SCM Chapter 6):* BES recommends the applicant review the following SCM sections to understand the structural, treatment, and operational BMP requirements that may impact the project design.

        1) *Waste and Recycling Storage (SCM Section 6.1)*

        2) *Food Cart Pods (SCM Section 6.2)*

b. *Contaminated Site Requirements* (*SCM Chapter 8*): This site is a known contaminated site listed in DEQ's Environmental Cleanup Site Information (ECSI) database as site #5936 and Leaking Underground Storage Tank (LUST) database as site #26-99-0182.

   1) *DEQ Site Status:* Please contact DEQ to ensure the proposed development will meet or will not conflict with or violate any prior DEQ conditions or decisions regarding site conditions.

   2) *Contaminated Soils (SCM Section 8.2.1)*: Additional erosion control measures are required. Stockpiles of soil must have a barrier on all four sides and be covered to protect the soils from stormwater contact. Contaminated soil piles must also have an impervious layer underneath the stockpile to inhibit contaminants from leaching back into the soil. A DEQ approved Contaminated Media Management Plan (CMMP) or Soil Management Plan (SMP) may also be required prior to building permit approval.

c. *Site Dewatering Requirements (SCM Chapter 9, PCC 17.34, PCC 17.36, PCC 17.38, PCC 17.39, ENB 4.32)* BES evaluates requests for temporary and long-term stormwater and groundwater dewatering discharges into the city sewer system for approval or denial. See Appendix 1 of the SCM for the Construction Dewatering Discharge Application Form. If approved, a Discharge Permit for the storm or combined sewer may be required.

   1) Fees are assessed for temporary construction discharges to the public sewer system – navigate HERE for current rates and information about dewatering as it relates to construction projects.

   2) Construction discharges to City UICs are prohibited.

   3) Construction discharges to private UICs (e.g., drywells or soakage trenches) must be authorized by DEQ's UIC Program.

   4) Groundwater levels at this location are relatively low (approximately 0 - 10 feet below grade surface based on seasonally adjusted USGS data). If the development is expected to reach this depth or encounters perched groundwater, additional requirements apply if long-term post-construction dewatering is needed. When using a private onsite facility to manage groundwater flows, the SWMM O&M Form and O&M Plan must be recorded with the County and submitted. A Notice of Conditions must also be recorded against the property deed.

   5) When dewatering is proposed on known/suspect contaminated site, BES may require analysis of the discharged stormwater or groundwater to determine the appropriate discharge system or if treatment may be needed prior to discharge.

d. *Grease Management Program (PCC 17.34, ENB 4.26)*: The City requires grease management (GM) devices in all food service establishments and for any business/industry that may introduce fats, oils, or grease (FOG) into the public sewer. A monitoring access structure (MAS) may also be required. Please refer to the MAS discussion below regarding MAS requirements. For additional information, go to the Cut Through the FOG webpage.

G. ADMINISTRATIVE REVIEW

The applicant may request a modification of a decision presented in this response, as applicable, via an administrative review as outlined in PCC sections 17.06.050, 17.32.150, 17.33.100, 17.34.115, 17.36.110, 17.38.060 and 17.39.120 and in those sections' associated administrative rules. Some portions of this response are not decisions, but guidance related to requirements that this proposal may be subject to during City review of other processes, such as a building permit or public works permit review. While these are not decisions that are ripe to be considered through an administrative review, if the outcome of a future administrative review needs to be anticipated at this time in order to inform the land use action, the administrative review process

may be utilized. Some items, such as technical standards, are not reviewable. For guidance on whether a modification can be requested and whether the land use process is the proper time to request it, consult with the BES staff identified above prior to submitting a request.

There is no fee charged for an administrative review, and all BES penalties and late fees will be stayed pending the outcome of the review process, as applicable. To request an administrative review, the applicant must complete the Administrative Review Request Form (located here: www.portlandoregon.gov/bes/68285) and submit it to the Systems Development staff listed above within 20 business days of the mailing date of this response. The applicant should coordinate with the BDS planner to determine whether applying for an administrative review would have an impact on state-mandated land use timelines.

PBOT
PORTLAND BUREAU OF TRANSPORTATION
1900 SW Fourth Ave., Suite 5000 Portland, OR 97201 503-823-5185
Fax 503-823-7576 TTY 503-823-6868 www.portlandoregon.gov/transportation

RESPONSE TO THE BUREAU OF DEVELOPMENT SERVICES
LAND USE REVIEW REQUEST

Portland Transportation
Development Review
Bureau of Transportation Engineering & Development

LU: 23-111784-000-00-LU Date: June 26, 2024

To: Andrew Gulizia, Bureau of Development Services, B299/R5000

From: Michael Pina, B106/800, 503-823-4249

Applicant: Johnathan Malsin, BEAM DEVELOPMENT
1001 SE WATER AVE., SUITE 400
PORTLAND OR

Location: SE WATER AVE

TYPE OF REQUEST: Type 3 procedure CU - Conditional Use

DESCRIPTION OF PROJECT

HO HEARING: Proposal: The applicant proposes to construct a new, 62,000-square-foot building on this site to be used as a concert venue with 1,280 seats and a maximum spectator capacity of 3,500. The applicant requests Conditional Use Review approval for a new Major Event Entertainment use in the IG1 zone. Type III Conditional Use Review is required by Zoning Code Sections 33.140.100.C and 33.815.040.A.1. The applicant also requests approval of two Adjustments to Zoning Code requirements for this project:

1. To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c). The applicant proposes to create 2 truck loading spaces which are primarily in the public right-of-way adjacent to the site subject to approval by the Portland Bureau of Transportation. However, loading areas in the public right-of-way do not count toward the Zoning Code requirement.

2. To reduce the amount of ecoroof area required from 14,617 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 2,100 square feet (Zoning Code Section 33.510.243.B.1).

Note: The applicant originally requested three Adjustments, including an Adjustment request to Zoning Code Section 33.266.200.B.1 to reduce the minimum number of on-site, short-term bike parking spaces from 32 to zero. The applicant had proposed to construct bike parking in the public right-of-way adjacent to the site as justification for this Adjustment. After discussion with the Portland Bureau of Transportation (PBOT), the applicant decided to withdraw this Adjustment request (Exhibit G-3). If this land use review is approved, the applicant will pay into PBOT's bike parking fund at the time of building permit review, as required by Zoning Code Section 33.266.210.E.1.b when there is insufficient space on-site to provide the required short-term bike parking. PBOT would then construct and maintain bike parking in the public right-of-way.

RESPONSE

The Portland Bureau of Transportation (PBOT) Development Review has reviewed the application for potential impacts regarding the public Right-of-Way (ROW), transportation services, Title 33, Title 17, and conformance with street designations according to the Transportation System Plan (TSP).

Major Event Entertainment (33.815.215)

To address the transportation approval criteria, the applicant submitted a professionally prepared Transportation Impact Study (TIS) by DKS and Associates, dated May 2024, in addition to the written narrative prepared by MacKenzie.

33.815.215.A.1: At this location, the City's Transportation System Plan (TSP) classifies the following abutting streets as follows:

Street Name	Traffic	Transit	Bicycle	Pedestrian	Freight	Emergency Response	Street Design
SE Salmon St	Local Service	Local Service	Major City Bikeway	Local Service in a Ped. Dist.	Freight District	Minor Response	Local Street
SE Water Ave	Traffic Access St	Local Service	Major City Bikeway	Major City Walkway in a Ped. Dist.	Priority Truck Street	Major Response	Neighborhood Main Street
SE Main St	Local Service	Local Service	City Bikeway	Local Service in a Ped. Dist.	Freight District	Minor Response	Local Street

The proposed Conditional Use project is supportive of the surrounding street designations of the Transportation Element of the Comprehensive Plan and TSP classifications. This criterion is met.

33.815.215.A.2: The proposed use is located within the Central Eastside Industrial Sanctuary. The applicant's TIS provided an analysis of existing, projected no-build, and post-development multi-modal transportation patterns. Conclusions indicate that since all of the development is located west of SE Water Ave, with the abutting east-west streets of SE Salmon and SE Main terminate into the Eastbank Esplanade, the proposed development will not conflict with existing truck and freight movement throughout the district. This criterion is met.

33.815.215.A.3.a: The applicant's traffic engineer has evaluated each of the evaluation factors to determine that that transportation system is capable of supporting the proposed use in addition to the existing uses in the area. PBOT Traffic Engineers have reviewed the applicant's TIS and approved the methodologies, analyses, assumptions, findings, and conclusions with regard to intersection capacity, Level of Service (LOS), trip generation, multi-modal safety, etc. to confirm that the transportation-related approval criteria have been addressed. This criterion is met.

The following is a summary of the applicant's TIS findings:

- *Safety:* For vehicle safety, the applicant's traffic engineer utilized Oregon Department of Transportation's (ODOT) Crash Data System over a five-year period from January 2016 to December 2020. There were 66 crashes recorded at the study intersections over the five-year period (see Table 4), with the most crashes occurring at the SE Stark St/SE Grand Ave and SE Stark St/SE MLK Jr Blvd intersections. Seven involved people walking or biking, including one at the SE Water Ave/SE Salmon St intersection. The most common collision types at the study intersections were angle, turning and rear-end crashes, many of which show "no yield" or "disregarded traffic signal" as the cited cause. In addition, the Union Pacific study rail crossings along the segment between SE Stark Street and SE Clay Street also had three reported incidents in the past five years, two in 2020 and one in 2022, two at the SE Salmon Street and one at the SE Clay Street crossings (see Table 5). Each of these incidents included a train striking a pedestrian, with two resulting in a fatality and one resulting in an injury.

  When an intersection's crash rate (crashes per million entering vehicles) is greater than the critical crash rate (an intersection's crash history compared to similar intersections, adjusting for volume), it's

an indication that a design deficiency may exist and further study is warranted. As shown in Table 6, one of the identified intersections is located at the intersection of SE Water Ave/SE Salmon St – where the proposed use is located. This is a 4-leg intersection with stop control of the side street approaches. Most of the collisions were angle/rear end type (4 of the 6 total collisions). Three of the collisions were caused by drivers failing to yield or passing the stop sign, two were caused by drivers running into a stopped or parked vehicle, and one was caused by a bike passing the stop sign.

PBOT standards are designed to provide safe conditions for all modes, especially pedestrian and cyclists. The applicant will be required to dedicate property along all three frontages and reconstruct the abutting pedestrian corridor to City standards, including safety improvements such as striped crosswalk, additional lighting, and curb extensions, mitigating potential conflicts in the future. PBOT will submit additional comments related to safety into the record prior to the public hearing.

- *Street Capacity/Level of Service (LOS)*: To determine the pre-build and post-build intersection capacity and LOS, turning movement data was obtained for the study intersections during the weekday and weekend pre-event period (6 p.m. to 8 p.m.) and post-event period (10:00 p.m. to 12:00 a.m.). Daily motor vehicle count data was also collected adjacent to the proposed venue along SE Water Avenue, south of SE Salmon Street and north of SE Main Street. The count data indicates that approximately 4,900 vehicles pass the proposed venue along SE Water Avenue during an average weekday. Of these vehicles, 1,300 travel northbound and 3,600 travel southbound. The highest number of trips along SE Water Avenue occurs from 5:00 – 6:00 p.m., with 488 vehicles passing the proposed venue (157 northbound and 331 southbound). During the pre-event and post-event peak hours, 165 and 35 vehicles pass the proposed venue along SE Water Avenue, respectively. For City study intersections along SE Water Avenue not designated on the Metro Regional Transportation Plan Arterial and Throughway Network, the City of Portland standards require a LOS "D" or better to be maintained for signalized intersections and a LOS "E" or better for intersections with stop control. As shown in Table 7, all study intersections meet the current mobility targets during the weekday and weekend pre-event and post event peak hours. All intersections along SE Water Avenue operate with a LOS B or better, while the signalized intersections at SE Stark Street/SE Grand Avenue and SE Stark Street/SE Martin Luther King Jr Boulevard operate with a LOS C or better, well below the current mobility targets.

  For Post-build expectations, Table 17 shows the future 2025 intersection operations at study intersections, with the proposed venue. As shown, all study intersections are expected to continue to meet mobility targets despite the added traffic growth from the proposed venue through 2025, despite an expected increase up to 14 percent during the pre-event peak hour and up to 41 percent during the post-event peak hour. All intersections along SE Water Avenue are expected operate with a LOS C or better, while the signalized intersections at SE Stark Street/SE Grand Avenue and SE Stark Street/SE Martin Luther King Jr Boulevard also operate with a LOS C or better. Therefore, the system evaluation found no street capacity or level of service impacts with the proposed venue, as shown in Table 17, 18 and 19.

- *Pedestrian, Cycling, and Transit Availability:* The proposed venue is very accessible to pedestrians and bicyclists and is well-served by a network of continuous sidewalks and bike facilities on the surrounding streets between nearby existing private vehicle parking, bike parking, ride hailing or transit stops. The proposed venue is also adjacent to existing bikeways along the Eastbank Esplanade, SE Water Avenue and SE Salmon Street. Current transit service near the proposed venue is primarily accessed via stops located on SE Grand Avenue and SE Martin Luther King Jr Boulevard between SE Salmon Street and SE Taylor Street, on the SE Madison Street and SE Hawthorne Boulevard viaducts (accessed via stairs from SE Water Avenue), on the SE Morrison Street and SE Belmont Street viaducts (accessed via stairs from SE Water Avenue), along SW 1st Avenue in downtown Portland across the Morrison Bridge, and near SE Tilikum Way. Event attendees and employees who utilize transit for travel to and from the venue would primarily utilize SE Water Avenue, SE Salmon Street and the Eastbank Esplanade to access transit services before and after events. Current schedules indicate that the TriMet Routes 6, 14 and 15 and MAX light-rail

service near the proposed venue extends beyond the conclusion of a typical event (i.e., expected to be 11:00 p.m. or later for most events).

- *Connectivity:* The subject site located at the intersection of three ROWs meeting the City's Street spacing standards noted in 17.88.040. Therefore, additional connections are not required.

- *Access Restrictions:* Of the three frontages, SE Main Street is the lowest classified street, therefore the appropriate frontage to which provide vehicular access. As discussed further below, the applicant proposes to provide loading from SE Main Street, reviewed through a PBOT Angle Loading Permit.

- *On-Street Parking Impacts:* Parking surveys were conducted between 6:00 p.m. and 11:00 p.m. on a weekday (Thursday, July 27, 2023) and a weekend (Saturday, August 5, 2023) within a 0.25 mile or about a 10-minute walk of the proposed venue, which is generally considered a comfortable walking distance. This roughly includes the blocks bounded by the Willamette River to the west, SE Morrison Street to the north, SE Grand Avenue to the east and SE Clay Street to the south. On-street parking in the surveyed area is either permit parking (i.e., Zone G or Zone N permit) or available via a 2-hour time limit for non-permit holders and enforced on weekdays only from 7 a.m. to 6 p.m. in non-metered spots and 8 a.m. to 6 p.m. in metered spots. As shown in Table 14, about 1,318 parking spots were identified within the surveyed area, including 1,084 on-street parking stalls and 234 parking spots in public off-street lots (see Figure 16 and Figure 17). A maximum estimated parking occupancy for the entire surveyed area of 32 percent was observed during the weekday and 17 percent was observed during the weekend, both occurring in the 5:00 p.m. and 7:00 p.m. survey period.

  Table 15 shows that a sold-out concert is estimated to generate demand for 915 parking spaces during both a weekday and weekend event, with attendee and employee arrivals occurring between 6:00 p.m. and 9:00 p.m. and most assumed to use parking locations within 0.25 miles of the proposed venue (i.e., 763 of the 915 parking spaces). The total occupied parking spaces with the proposed venue is estimated to be highest between 8:00 p.m. and 9:00 p.m. during both a weekday and weekend event when the attendee and employee parking demand is at its highest (i.e., demand for 763 spaces within 0.25 miles of the proposed venue). The parking occupancy rate during this period is estimated to reach 82 percent during a weekday event (i.e., 1,074 parking spaces) and 71 percent during a weekend event (i.e., 930 parking spaces) for the 1,318 parking spaces within 0.25 miles of the proposed venue. The estimated parking occupancy rates between 6:00 and 8:00 p.m. are under 80 percent for a weekday event and under 70 percent for a weekend event.

  Table 16 shows that a weekday special event is estimated to generate demand for 131 parking spaces, with attendee and employee arrivals occurring between 12:00 p.m. and 3:00 p.m. and all are assumed to use parking locations within 0.25 miles of the proposed venue. The total occupied parking spaces with the proposed venue is estimated to be highest between 1:00 p.m. and 2:00 p.m., when 1,135 parking spaces are utilized. This represents an 86 percent occupancy rate for the 1,318 parking spaces within 0.25 miles of the proposed venue. The estimated parking occupancy rates between 12:00 and 1:00 p.m. and are 2:00 and 3:00 p.m. are at or below 84 percent. PBOT regularly evaluates the on-street parking demand and has the ability to adjust controlling factors in accordance with existing practices and polices.

- *Neighborhood Impacts:* The applicant's TIS did not overtly address the potential of neighborhood impacts to the immediate vicinity or district as a whole. The purpose of the IG zone is to protect the Industrial Sanctuary area designated by the Comprehensive Plan. The Industrial Sanctuary zones identify areas where industrial uses may locate, while other uses - such as the current proposal - are restricted to prevent potential conflicts and to preserve land for industry. In this instance, the proposed venue is located in the outer portion of Central Eastside subdistrict, and the majority of proposed operations would occur when many industrial and allowed uses are closed, offsetting the impact to the district. PBOT shared concerns with the applicant that due to the proposed loading in SE Main St, the property directly to the south will be directly affected, which could impact the nature

of future development of the neighboring property. PBOT recommends that a letter from the property owner (Prosper Portland) be provided acknowledging the proposed development.

33.815.215.A.3.b: In accordance with 17.88.020, the proposed project will be required to dedicate and reconstruct the abutting frontages to City standards by providing a 12-ft wide pedestrian corridor along SE Salmon and SE Main streets, and a 15-ft wide corridor along SE Water Street. These improvements will be reviewed through a Public Works permit, which is to receive 30 percent concept approval and bond payment prior to issuance of the building permit. Additional frontage improvements such as street lighting, striped pedestrian crossings, curb extensions, signage, and preparation of ROW bike parking will also be evaluated at time of Public Works permit review.

The applicant also prepared a Transportation Demand Management (TDM) plan to reduce the impact of events on the transportation system and provide employees and attendees with information and incentives to use transportation methods other than single occupancy vehicles. The plan provides strategies to increase the walking, biking, transit, and ride hailing services to ensure that people who travel via motor vehicle effectively navigate to their parking, drop-off, or pick-up location with fewer delays than what would occur under an unmanaged setting. PBOT Parking Control and Traffic Engineering will evaluate ride hailing locations as deemed appropriate to serve the use and reserve the right to modify and relocate such service locations as the project comes online.

The applicant also identified several Capital Improvement Projects (CIP) in and around the area that will also help mitigate anticipated impacts and strengthen the City's mode-split goals.

Therefore, PBOT finds that with these measures, the transportation impact of the project will be able to sufficiently mitigate transportation-related impacts immediately surrounding the site and within the district. This criterion is met.

33.815.215.A.3.c: As noted above, all required frontage improvements, payment into the bike fund, and implementation of TDM strategies will be in place by the time the development is complete. This criterion is met.

In conclusion, based on the evidence included in the record, PBOT finds the applicant has demonstrated with required frontage improvements, implementation of proposed TDM measures, and adhering to strict conditions set forth in the required Angle Loading Permit, the proposed project will support access, safety, and function for users of all modes; and that the transportation system will be capable of supporting the proposed venue, in addition to accommodating the existing uses in the area.

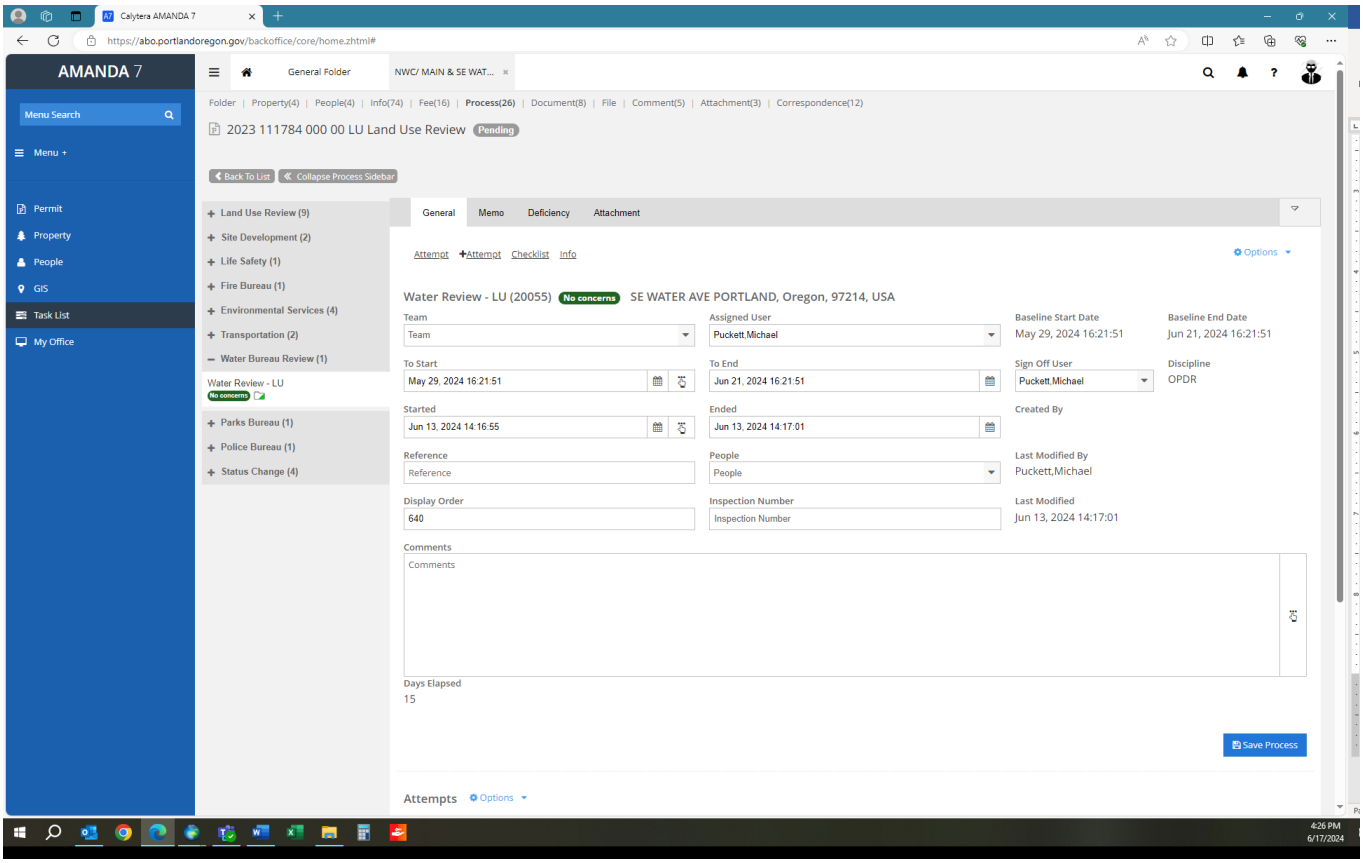
Adjustment Approval Criteria (33.805.040)
The applicant has requested an Adjustment to waive the on-site loading requirement for two Type A loading spaces, and instead, utilize the SE Main St ROW. While the building will have two Standard A loading docks near the southwest building corner, the standing area for the docked trailers and semi-tractors will be located mostly within the SE Main Street right-of-way rather than on the property itself. Rationale for this proposal is in part due to the size and function of the venue to operate effectively utilizing the full limitations of the site, and the size of two Type A loading spaces would take up a large part of the building footprint. Secondly, being located in the Central Eastside Industrial Sanctuary, truck loading has historically been accommodated in the ROW, with review from PBOT via an Angle Loading Permit. The applicant provided detailed information in the TIS describing the loading process, anticipated schedule, and safety measures to ensure that the proposed loading occurs safely and will not affect the other transportation functions of the abutting right-of-way. In discussions with the applicant, PBOT City Traffic Engineer expressed concerns over the safety of large vehicles maneuvering within the intersection of SE Water and SE Main Street, then backing up into the proposed loading spaces. The City Traffic Engineer conveyed to the applicant that if the proposed loading is found to be in violation of the conditions and stipulations of the Angle Loading permit, that the City retains the right to fine the venue owner/operator and/or revoke the site's Angle Loading Permit at any time. However, assuming ongoing compliance with all applicable permits and standards, PBOT finds that the proposed will not

negatively impact the surrounding area, and that the proposed Adjustment equally meets the purpose of the code.

RECOMMENDATION

PBOT has no objections to the proposed Major Event Entertainment Conditional Use, subject to the following conditions:

1. The applicant must receive 30 precent Public Works concept approval and bond payment prior to issuance of building permit for required frontage improvements abutting the site.
2. The applicant must apply for and obtain an annual Angle Loading Permit for the proposed loading in SE Main street. The applicant must adhere to all the conditions and stipulations of said permit for the life of the proposed use. If any conditions are found to be in violation, applicant may be fined and/or revocation of said Angle Loading Permit.
3. The applicant must implement the TDM measures identified the TDM plan within their control.
4. Applicant must assess their bike parking capacity on an annual basis for first 5 years and then every other year after that. That assessment shall include bike counts averages for events throughout the year. Applicant must send their assessment to PBOT Development Review and PBOT Active Transportation and Safety. If demand consistently exceeds provided bike parking, the applicant must work with PBOT on remedies, including but not limited to adding additional bike racks or a contract for offering temporary bike racks during events.
5. The applicant shall provide a letter for the record that the property to the south (R673495) acknowledges and accepts the limitations placed upon the site with the proposed loading occurring in SE Main St by the subject property.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2023 111784 000 00 LU Land Use Review
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Land Use Review (9)
Site Development (2)
Life Safety (1)
Fire Bureau (1)
Environmental Services (4)
Transportation (2)
Water Bureau Review (1)
Water Review - LU
No concerns
Parks Bureau (1)
Police Bureau (1)
Status Change (4)
General
Memo
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Water Review - LU (20055)
No concerns
SE WATER AVE PORTLAND, Oregon, 97214, USA
Team
Team
Assigned User
Puckett,Michael
Baseline Start Date
May 29, 2024 16:21:51
Baseline End Date
Jun 21, 2024 16:21:51
To Start
May 29, 2024 16:21:51
To End
Jun 21, 2024 16:21:51
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OPDR
Started
Jun 13, 2024 14:16:55
Ended
Jun 13, 2024 14:17:01
Created By
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Display Order
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Inspection Number
Last Modified
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Comments
Comments
Days Elapsed
15
Save Process
Attempts
Options
4:26 PM
6/17/2024

PORTLAND FIRE & RESCUE

Rene Gonzalez, Commissioner
Ryan Gillespie, Fire Chief
Kari Schimel, Fire Marshal
Prevention Division
1300 SE Gideon St.
Portland, OR, 97202
Phone: (503)823-3770

LAND USE REVIEW RESPONSE

TO: **Andrew Gulizia, City of Portland, Land Use Review**
FROM: **Dawn Krantz, Portland Fire Bureau 971-313-3675**
DATE: **June 17, 2024**
SUBJECT: **LU 23-111784 CU**
SITE LOCATION : SE WATER AVE

The following conditions of approval and informational comments are based on the land use review information provided to the Fire Bureau. Fire Bureau requirements are generated from the 2021 Portland Fire Code. All current Fire Code requirements apply and are required to be met. If these conditions cannot be met, an appeal providing an alternative method is an option for the applicant. If the applicant chooses to appeal a requirement, the appeal must be listed as a condition in the decision. Fire Code Appeals can be obtained at the Fire Bureau web page, www.portlandonline.com.

CONDITIONS OF APPROVAL AT TIME OF DEVELOPMENT

A separate building permit is required for this proposal. All applicable Fire Code requirements shall apply at the time of permit review and development.

CITY OF PORTLAND, OREGON

Bureau of Police
Ted Wheeler, Mayor
Robert Day, Chief of Police
1111 S.W. 2nd Avenue • Portland, OR 97204 • Phone: 503-823-0000

Integrity • Compassion • Accountability • Respect • Excellence • Service

Date: June 10, 2024

To: Andrew Gulizia, Land Use Services
From: Jonathan Miller, Strategic Services Division

Subject: Land Use Review Response
Case Number: LU 23-111784 CU AD
Site Address: west side of SE Water Ave. between SE Salmon St. and SE Main St.

The Police Bureau has reviewed this land use case and has no concerns with the proposal.

The proposal was evaluated on whether police can provide adequate public safety services to the proposed Conditional Use and Adjustment. The Police Bureau is currently able to serve the existing site and will be able to provide services after the proposed change.

Police officers can reasonably access the site using the existing or proposed right of ways by foot and vehicle without restriction.

The Portland Police Bureau does not request any conditions of approval.

Please contact me with any questions.

City of Portland, Oregon
Bureau of Development Services
Site Development
FROM CONCEPT TO CONSTRUCTION

Carmen Rubio, Commissioner
David Kuhnhausen, Interim Director
Phone: (503) 823-7300
TTY: 711
www.portland.gov/bds

Land Use Review Response
Site Development Section, BDS

To:	Andrew Gulizia, LUR Division
From:	Kevin Wells, Site Development (503-823-5618)
Location/Legal:	LOT 1 TL 3602, PARTITION PLAT 2016-7; LOT 1 TL 4305, PARTITION PLAT 2016-8; LOT 1 TL 1705, PARTITION PLAT 2016-9
Land Use Review:	LU 23-111784
Proposal:	HO HEARING: The applicant proposes to construct a new, 62,000-square-foot building on this site to be used as a concert venue with 1,280 seats and a maximum spectator capacity of 3,500. The applicant requests Conditional Use Review approval for a new Major Event Entertainment use in the IG1 zone. Type III Conditional Use Review is required by Zoning Code Sections 33.140.100.C and 33.815.040.A.1. The applicant also requests approval of three Adjustments to Zoning Code requirements for this project: To reduce the minimum number of on-site, short-term bike parking spaces from 32 to zero (Zoning Code Section 33.266.200.B.1). The applicant proposes to install more than 32 bike parking spaces in the public right-of-way adjacent to the site subject to approval by the Portland Bureau of Transportation. However, bike parking in the public right-of-way does not count toward the Zoning Code requirement. To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c). The applicant proposes to create 2 truck loading spaces which are primarily in the public right-of-way adjacent to the site subject to approval by the Portland Bureau of Transportation. However, loading areas in the public right-of-way do not count toward the Zoning Code requirement. To reduce the amount of ecoroof area required from 14,617 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 2,100 square feet (Zoning Code Section 33.510.243.B.1).
Quarter Sec. Map:	3130
Date:	June 24, 2024

The Bureau of Development Services (BDS) Site Development section provides the following comments based on the land use application and documents provided by the applicant. References to Portland City Code (PCC) may be included below. City codes are available for on-line review from the City Auditor's Online Charter and Code page.

Response Summary

Site Development does not object to the proposed conditional use and zoning code adjustments.

Site Conditions

Topography: The site is relatively level with an approximate elevation of 35 feet NAVD.

Potential Landslide Hazard Area: The site is not in a regulated Potential Landslide Hazard Area.

Flood Hazards: The site is not within a FEMA or City of Portland Flood Hazard Area.

Building Permits

The applicant must obtain a building permit to facilitate the proposed improvements. As required by Title 24.10.070, any owner or authorized agent who intends to construct, enlarge, alter, repair, move, change the

character or use of the occupancy, or change the occupancy of a building or structure that is regulated by the State Building Code, must first make application to BDS and obtain a building permit.

Geotechnical Engineering Requirements

The applicant must submit a geotechnical report and site-specific seismic hazard study with the building permit application. Since the proposed structure qualifies as a major structure in accordance with ORS 455.447, a site-specific seismic hazard study is required in addition to a geotechnical report.

The site is mapped within a liquefaction hazard area. The geotechnical engineer must evaluate the potential for liquefaction and provide recommendations for mitigation should liquefaction occur at the site.

Stormwater Disposal and Treatment

The Bureau of Environmental Services will review the project for conformance to the Stormwater Management Manual.

Erosion Control

An erosion control plan must be submitted at the building permit application. Since the project area meets the criteria specified in Title 10.30.030 as a Special Site, an erosion control plan prepared by a Certified Professional in Erosion and Sediment Control (CPESC) or State of Oregon registered professional engineer (PE), and special inspections by the CPESC or P.E. during construction, may be required at the time of building permit review. Please refer to the City of Portland **Erosion and Sediment Control Manual** for additional information regarding erosion and sediment control requirements.

DEQ permit: A 1200-C permit from the Oregon Department of Environmental Quality (DEQ) is required for construction activities including clearing, grading, excavation, and stockpiling that will disturb one or more acres and may discharge to surface waters or conveyance systems leading to surface waters of the state.

Conditions of Approval

Site Development does not request conditions of approval.

City of Portland, Oregon - Bureau of Development Services

1900 SW Fourth Avenue • Portland, Oregon 97201 | 503-823-7300 | www.portland.gov/bds

To: Andrew Gulizia
From: Chanel Horn, Life Safety Plans Examiner
Date: June 10, 2024
RE: SE WATER AVE, 23-111784-LU

LIFE SAFETY PLAN REVIEW RESPONSE

The following comments are based on the plans and documents provided to the Life Safety Plan reviewer. They are intended to provide the applicant with preliminary Building Code information that could affect the Land Use Review, Public Records request and/or future Building Permit reviews. The comments may not identify all conflicts between the Land Use proposal and the Building Codes. A complete Life Safety plan review will be provided at the time of Building Permit submittal at which time any additional Building Code issues will be noted. The comments are based on the Oregon Structural Specialty Code (OSSC), the International Existing Building Code (IEBC), the Oregon Mechanical Specialty Code (OMSC), or the Oregon Residential Specialty Code (ORSC).

RESPONSE SUMMARY

☒ Life Safety Plan Review does not object to the approval of this proposal. The applicant should be aware that several building code requirements may impact the final design of this building. For information regarding future compliance, see the **GENERAL LIFE SAFETY COMMENTS** below.

☐ Life Safety Plan Review does not object to the approval of this proposal. This approval is conditional on the finalization of the property line adjustment approved through this LUR/PR. If this public record is not finalized, a Covenant Not to Sell the Properties Separately must be established for this project. For information regarding future compliance, see the **GENERAL LIFE SAFETY COMMENTS** below.

☐ Life Safety Plan Review does not object to the approval of this proposal. Prior to Life Safety approval of the final plat or Land Use proposal, the applicant must address the Building Code issues listed as part of the **GENERAL LIFE SAFETY COMMENTS** below.

☐ Life Safety Plan Review cannot support approval of the current Land Use proposal. Prior to Life Safety approval of the final plat, the applicant must address the Building Code issues listed as part of **the GENERAL LIFE SAFETY COMMENTS** below.

Item #	GENERAL LIFE SAFETY COMMENTS
1	**Building Permit Required -** A separate Building Permit is required for the work proposed and the proposal must be designed to meet all applicable building codes and ordinances. Information about submitting a permit application request is available online at: https://www.portland.gov/bds/permit-review-process/apply-or-pay-permits.
2	**Assigned Process Manager -** It is recommended the applicant contact the assigned project Process Manager to arrange a Preliminary Life Safety Meeting. The Process Management main phone number is (503) 823-2727. Additional information for the Process Management program is available online at: https://www.portland.gov/bds/commercial-permitting/process-management.

PORTLAND PARKS & RECREATION
Healthy Parks, Healthy Portland

Urban Forestry
1900 SW 4th Ave. Ste 5000, Portland, OR 97201
Tel: 503-823-TREE (8733) Fax: 503-823-4493
email: trees@portlandoregon.gov
web: portlandoregon.gov/trees

Urban Forestry
Land Use Review Response

Date: June 17, 2024
From: Andrew Gallahan
503-823-4511, Andrew.Gallahan@portlandoregon.gov
Case File: 23-111784-000-00-LU
Location SE WATER AVE
Proposal: HO HEARING: Conditional Use Review and Adjustments for new concert venue. Adjustments are requested to 33.266.200.B.1. (number of short-term bike parking spaces provided permanently on the site), 33.266.310.C.2.c. (number of Standard A loading spaces located entirely on the site) and 33.510.243.B.1. (ecoroof coverage).

Urban Forestry has reviewed the proposal for its impact on existing city trees, street trees and heritage trees, street tree planting requirements and related mitigation in accordance with Title 11, Trees and for potential impacts upon urban tree canopy. It is the applicant's responsibility to disclose all aspects of their land use proposal that may impact required street tree plantings and existing street trees during the land use review process.

UNLESS EXPLICITLY STATED HEREIN, THIS REVIEW DOES NOT APPROVE STREET TREE REMOVALS AND DOES NOT PROVIDE ANY EXEMPTIONS TO TITLE 11 REQUIRMENTS.

Permits required after land use approval are subject to all applicable development standards and all provisions of the City Code, including Title 11. Title 11 regulations will be applied during the permit review process.

PLEASE NOTE THERE MAY BE OTHER APPLICABLE TREE REQUIREMENTS AS PER TITLE 33 PLANNING & ZONING.

A. Response Summary

Urban Forestry does not object to approval of the land use proposal. The proposed development will be subject to Title 11 regulations during the permit review process.

B. Tree Plan (11.50.070)

A Title 11 compliant tree plan must be submitted with each phase of development review and permitting including land use reviews, building permits, and public works permits. The same tree plan shall be included with each permit.

C. Street Trees

1. *Existing Street Conditions*
   According to available GIS data, the frontages have the following configuration.
   a. SE Main St: The site has approximately 175 feet of street frontage. The right-of-way is improved with pavement and sidewalks. There are no overhead high voltage power lines. There are 0 street trees.

b. SE Water Ave: The site has approximately 200 feet of street frontage. The right-of-way is improved with pavement, curbs, and sidewalks There are overhead high voltage power lines. There are 0 street trees.
c. SE Salmon St: The site has approximately 175 feet of street frontage. The right-of-way is improved with pavement and sidewalks. There are no overhead high voltage power lines. There are 0 street trees.
A field visit by Urban Forestry staff have confirmed the following trees:

2. *Street Tree Planting* (11.50.060.C)
One street tree must be planted or retained for each full increment of 25 linear feet (11.50.060.C.1). Street trees must be planted at a minimum 2.5 caliper inches.

Street tree planting may be exempt under 11.50.060.B when existing above or below grade utilities prevent planting street trees or when the existing planting strip is less than 3-feet wide.

When the required number of trees cannot be planted, a fee in lieu of planting may be required during the permit review process. Fees-in-lieu will be charged in accordance with the Title 11 Trees Fee Schedule.

Due to the existing condition of the right-of-way, street tree planting may not be required unless PBOT requires frontage improvements. If PBOT requires frontage improvements street trees may be required during the permit review process.

D. On Site Trees

City Managed Sites (11.50.040.C.2.a)
For development on City owned or managed sites applicants are required to consult with the City Forester at the preliminary project design phase if City or Street Tree removal is likely to occur to complete the project. The purpose of this consultation is to identify potential impacts and opportunities to retain existing trees, as well as any measures required to protect trees on site. (11.50.040)

There is no record of Urban Forestry having been consulted in regard to this project. A Preliminary Project Design Form must be submitted with Urban Forestry. The Preliminary Design Form can be found here: https://www.portland.gov/trees/trees-development/documents/urban-forestry-preliminary-project-design-form

1. *Existing On-Site Conditions*
   a. Vacant lot with no trees.

2. *On-Site Tree Density Standards* (11.50.050.D)
   a. The required tree area is based on the size and the type of proposed existing development as shown in Title 11 Table 50-2. Trees must be planted at a minimum 1.5 caliper inches. Trees will be required to be planted through the permit review process.

E. Recommendations
Urban Forestry has no objection to the proposed project.

City of Portland, Oregon - Bureau of Development Services

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Land Use Review Application

File Number: LU 23-111784 CU AD

FOR INTAKE, STAFF USE ONLY

Date Rec 12/22/23 by EW

☐ Type I ☐ Type Ix ☐ Type II ☐ Type IIx ■ Type III ☐ Type IV ☐ ELD

LU Reviews CU AD

[Y] [N] Unincorporated MC

[Y] [N] Flood Hazard Area (LD & PD only)

[Y] [N] Potential Landslide Hazard Area (LD & PD only)

[Y] [N] 100-year Flood Plain [Y] [N] DOGAMI

Qtr Sec Map(s) 3130 Zoning IG1

Plan District Central City - Central Eastside

Historic and/or Design District None

Neighborhood Buckman

District Coalition SEU

Business Assoc Central Eastside Industrial

Related File # EA 22-128857 PC, PJ 22-136335

APPLICANT: Complete all sections below that apply to the proposal. Please print legibly.
Email this application and supporting documents to: LandUseIntake@portlandoregon.gov

Development Site Address or Location NWC Main & SE Water Ave

Cross Street SE Salmon and SE Main **Sq. ft./Acreage** 0.80 AC (34,862 SF)

Site tax account number(s)

R 673490 **R** **R**

R **R** **R**

Describe project (attach additional page if necessary)

Conditional Use Review and Adjustments for new concert venue.

Describe proposed stormwater disposal methods

Stormwater will be managed partially with an ecoroof and partially with a vegetated flow through planter. After management, stormwater runoff will be piped to the public storm-only main in SE Main Street. Outfall to the Willamette river occurs north of the project site, aligned with SE Yamhill Street.

Identify requested land use reviews

Conditional Use Review and Adjustments

- **Design & Historic Reviews -** For **new development**, provide project valuation. $_____
  For **renovation**, provide exterior alteration value. $_____
  AND provide total project valuation. $_____
- **Land Divisions -** Identify number of lots (include lots for existing development). _____
  New street (public or private)? ☐ yes ☐ no
- **Affordable Housing -** For buildings containing five or more dwelling units, will 50% or more of the units be affordable to households with incomes equal to or less than 60% of the median family income for the county or state, whichever is greater? ☐ yes ☐ no ☐ N/A

continued / over

Applicant Information

- Identify the primary contact person, applicant, property owner and contract purchaser. Include any person that has an interest in your property or anyone you want to be notified. Information provided, including telephone numbers and e-mail addresses, will be included in public notices.
- For all reviews, the applicant must sign the Responsibility Statement.
- For land divisions, all property owners must sign the application.

PRIMARY CONTACT:

Typed Full Name: Suzannah Stanley ☑ I acknowledge this typed name as my signature

Company/Organization: Mackenzie

Mailing Address: 1515 SE Water Ave Ste 100

City: Portland State: OR Zip Code: 97214

Day Phone: 971-346-3808 FAX: email: sstanley@mcknze.com

Check all that apply ☐ Applicant ☐ Owner ☑ Other Contact person

Typed Full Name: Paul Gagliardi ☑ I acknowledge this typed name as my signature

Company/Organization: PDC DBA Prosper Portland

Mailing Address: 222 NW 5th Ave

City: Portland State: OR Zip Code: 97209-3812

Day Phone: FAX: email: gagliardip@propserportland.us

Check all that apply ☐ Applicant ■ Owner ■ Other Owner's Agent

Typed Full Name: Jonathan Malsin ☑ I acknowledge this typed name as my signature

Company/Organization: Beam Development

Mailing Address: 1001 SE Water Ave., Suite 400

City: Portland State: OR Zip Code: 97214

Day Phone: FAX: email: jonathan@beamdevelopment.com

Check all that apply ■ Applicant ☐ Owner ☐ Other

Typed Full Name: ☐ I acknowledge this typed name as my signature

Company/Organization:

Mailing Address:

City: State: Zip Code:

Day Phone: FAX: email:

Check all that apply ☐ Applicant ☐ Owner ☐ Other

Responsibility Statement As the applicant submitting this application for a land use review, I am responsible for the accuracy of the information submitted. The information being submitted includes a description of the site conditions. I am also responsible for gaining the permission of the owner(s) of the property listed above in order to apply for this review and for reviewing the responsibility statement with them. If the proposal is approved, the decision and any conditions of the approval must be recorded in the County Deed Records for the property. The City of Portland is not liable if any of these actions are taken without the consent of the owner(s) of the property. In order to process this review, City staff may visit the site, photograph the property, or otherwise document the site as part of the review. I understand that the completeness of this application is determined by the Director. By my signature, I indicate my under-standing and agreement to the Responsibility Statement.

Name of person submitting this application agrees to the above Responsibility Statement and acknowledges typed name as signature:

Suzannah Stanley Date: 12/18/23

Phone number: 971-346-3808

Email this application and supporting documents to LandUseIntake@portlandoregon.gov

Submittal of locked or password protected documents will delay intake of your application.

revised application form submitted 6/26/24

City of Portland, Oregon - Bureau of Development Services

1900 SW Fourth Avenue • Portland, Oregon 97201 | 503-823-7300 | www.portland.gov/bds

Land Use Review Application

File Number: LU 23-111784 CU AD

FOR INTAKE, STAFF USE ONLY

Date Rec 12/22/23 by EW

☐ Type I ☐ Type Ix ☐ Type II ☐ Type IIx ■ Type III ☐ Type IV ☐ ELD

LU Reviews CU AD

[Y] [N] Unincorporated MC

[Y] [N] Flood Hazard Area (LD & PD only)

[Y] [N] Potential Landslide Hazard Area (LD & PD only)

[Y] [N] 100-year Flood Plain [Y] [N] DOGAMI

Qtr Sec Map(s) 3130 Zoning IG1

Plan District Central City - Central Eastside

Historic and/or Design District None

Neighborhood Buckman

District Coalition SEU

Business Assoc Central Eastside Industrial

Related File # EA 22-128857 PC, PJ 22-136335

APPLICANT: Complete all sections below that apply to the proposal. Please print legibly.
Email this application and supporting documents to: LandUseIntake@portlandoregon.gov

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Cross Street SE Salmon and SE Main **Sq. ft./Acreage** 0.80 AC (34,862 SF)

Site tax account number(s)

R 673490 **R** **R**

R **R** **R**

Describe project (attach additional page if necessary)

Conditional Use Review and Adjustments for new concert venue.

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Identify requested land use reviews

Conditional Use Review and Adjustments

- **Design & Historic Reviews -** For **new development**, provide project valuation. $
  For **renovation**, provide exterior alteration value. $
  AND provide total project valuation. $
- **Land Divisions -** Identify number of lots (include lots for existing development).
  New street (public or private)? ☐ yes ☐ no
- **Affordable Housing -** For buildings containing five or more dwelling units, will 50% or more of the units be affordable to households with incomes equal to or less than 60% of the median family income for the county or state, whichever is greater? ☐ yes ☐ no ☐ N/A

continued / over

Applicant Information

- Identify the primary contact person, applicant, property owner and contract purchaser. Include any person that has an interest in your property or anyone you want to be notified. Information provided, including telephone numbers and e-mail addresses, will be included in public notices.
- For all reviews, the applicant must sign the Responsibility Statement.
- For land divisions, all property owners must sign the application.

PRIMARY CONTACT:

Typed Full Name: Suzannah Stanley ☑ I acknowledge this typed name as my signature

Company/Organization: Mackenzie

Mailing Address: 1515 SE Water Ave Ste 100

City: Portland State: OR Zip Code: 97214

Day Phone: 971-346-3808 FAX: email: sstanley@mcknze.com

Check all that apply ☐ Applicant ☐ Owner ☑ Other: Contact person

Typed Full Name: Paul Gagliardi ☑ I acknowledge this typed name as my signature

Company/Organization: PDC DBA Prosper Portland

Mailing Address: 222 NW 5th Ave

City: Portland State: OR Zip Code: 97209-3812

Day Phone: FAX: email: gagliardip@propserportland.us

Check all that apply ☐ Applicant ☑ Owner ☑ Other: Owner's Agent

Typed Full Name: Jonathan Malsin ☑ I acknowledge this typed name as my signature

Company/Organization: Beam Development

Mailing Address: 1001 SE Water Ave., Suite 400

City: Portland State: OR Zip Code: 97214

Day Phone: FAX: email: jonathan@beamdevelopment.com

Check all that apply ☑ Applicant ☐ Owner ☐ Other

Typed Full Name: ☐ I acknowledge this typed name as my signature

Company/Organization:

Mailing Address:

City: State: Zip Code:

Day Phone: FAX: email:

Check all that apply ☐ Applicant ☐ Owner ☐ Other

Responsibility Statement As the applicant submitting this application for a land use review, I am responsible for the accuracy of the information submitted. The information being submitted includes a description of the site conditions. I am also responsible for gaining the permission of the owner(s) of the property listed above in order to apply for this review and for reviewing the responsibility statement with them. If the proposal is approved, the decision and any conditions of the approval must be recorded in the County Deed Records for the property. The City of Portland is not liable if any of these actions are taken without the consent of the owner(s) of the property. In order to process this review, City staff may visit the site, photograph the property, or otherwise document the site as part of the review. I understand that the completeness of this application is determined by the Director. By my signature, I indicate my under-standing and agreement to the Responsibility Statement.

Name of person submitting this application agrees to the above Responsibility Statement and acknowledges typed name as signature:

Suzannah Stanley Date: 12/18/23

Phone number: 971-346-3808

Email this application and supporting documents to LandUseIntake@portlandoregon.gov | **Submittal of locked or password protected documents will delay intake of your application.**

Carmen Rubio, Commissioner
David Kuhnhausen, Interim Director
Phone: (503) 823-7300
TTY: 711
www.portland.gov/bds

January 12, 2024

Suzannah Stanley
Mackenzie
1515 SE Water Ave., Ste. 100
Portland, OR 97214
sstanley@mcknze.com

Re: Land Use Review LU 23-111784 CU AD

Dear Suzannah:

The Bureau of Development Services received your application for a Conditional Use Review and Adjustment Review for property located at SE Water Ave. and SE Main St. on December 22, 2023. Your case has been assigned to me, Andrew Gulizia. In order to continue to review your application, additional information is needed. Once you submit this information, your application will be considered complete, and I will proceed with a full review of your proposal. Up to this point, your application has been reviewed to determine if all required information has been submitted. The application has not been fully reviewed to determine if it meets the relevant approval criteria.

I. Information Necessary to Complete Application
The following information must be submitted to make your application complete:

1. Area plans. Please submit a revised narrative which addresses relevant policies from the Buckman Neighborhood Plan (https://www.portland.gov/bps/planning/comp-plan-2035/documents/buckman-neighborhood-plan-1991/download) and the Central City 2035 Plan (https://www.portland.gov/bps/planning/cc2035/cc2035-documents#toc-cc2035-as-adopted-plan) in your discussion of "desired character" for the Adjustment Review approval criterion in 33.805.040.B. Area plans are referenced in the definition of "desired character" in 33.910.

2. Stormwater planter clarification. Parts of the narrative refer to an at-grade stormwater facility, but the plans seem to show the stormwater planter on top of a roof. Please clarify this. (Clarification is also requested in BES' memo, attached.)

3. Floor plans. Please add a floor plan for each level of the building to your plan set.

4. Portland Bureau of Transportation (PBOT) issues. Please work with PBOT staff on the issues identified in their attached memo.

5. Ground floor active use standard. Since the site abuts SE Water Ave., 33.510.225 requires active use areas such as lobbies, offices, or concessions to occupy at least 50% of each street-facing façade. This code section also includes dimensional standards for the active use areas. Please note the City Attorney's Office has determined that this standard applies to all street frontages on the site, not just the SE Water Ave. frontage. Please provide a ground floor plan and section drawing that shows how this standard is addressed for each of the three street frontages. If necessary, you could apply for an additional Adjustment to allow the "back of house" to face one of the streets. If you apply for an additional Adjustment, please address the approval criteria for this Adjustment (33.805.040.A-F) in a revised narrative. Upon receipt of a revised narrative requesting an additional Adjustment, I would ask our administrative staff to

send you an invoice and payment instructions for the additional Adjustment fee ($3,937), unless you withdraw one of the Adjustment requests you already made as suggested in Section II, below. In your responses to the Adjustment Review approval criteria for this standard, you could note the Housing Regulatory Relief Project currently under review by the City Council would limit the applicability of this standard to streets identified on Map 510-9. (However, even if this code update is adopted as proposed, this project would remain vested under the current code language per 33.700.080.)

II. Issues to Consider

While not strictly necessary to make the application complete, please consider the following about the approvability of your proposal:

- Photo simulation. To better make your case for the building design, please consider providing a photo simulation. Interested parties viewing the elevation drawings alone might not visualize the building design as it's intended.

- Short-term bike parking standard. The PBOT memo attached indicates PBOT will oppose the Adjustment to waive the requirement for short-term bike parking on-site (33.266.200.B). Since staff is unlikely to recommend approval for this Adjustment, please consider withdrawing this Adjustment request. Without this Adjustment, a fee-in-lieu payment under 33.266.210.E.1.b would be added to the fees due at building permit issuance ($27,700 under the current fee schedule). Temporary bike parking in the right-of-way could still remain part of your transportation demand management (TDM) proposal for the Conditional Use Review approval criteria if agreed with PBOT. If you withdraw this Adjustment request, we will refund $3,937 of the Adjustment Review fees you paid unless you add an Adjustment request for the ground floor active use standard mentioned in Section I, above.

- Ecoroof standard. Since a significant reduction to the ecoroof standard in 33.510.243 is requested, please consider the following to increase the likelihood of a staff recommendation for approval:

  - Provide a planting plan for the ecoroof areas and details on how the plants selected are likely to fare in the conditions provided and what specific habitat benefits they will provide. Ideally, you would be able to show how your planting plan would create denser ecoroof plantings than usually seen, with taller and more varied plants.

  - Provide more detailed plans including a planting plan for the "ecoscreen" mentioned in your narrative and provide details on how the plants selected are likely to fare in the conditions provided (green walls often fail over time) and what specific habitat benefits the plants will provide.

  - Consider how the proposed ecoroof area can be expanded further, even if onto sloped roof forms. To the extent that mechanical equipment needs constrain this, explain how the mechanical equipment needs were determined.

  - Consider if an at-grade planted area designed for wildlife habitat can be provided on one of the neighboring lots under the same ownership.

- Low carbon buildings standard. Please note this requirement in 33.510.244 would apply to a building permit review.

- Tree density standard. Please note the tree density requirement in 11.50.050 would apply to a building permit review. 11.50.040.D.3.c provides a fee-in-lieu option.

III. Time to Complete Application
The Portland Zoning Code allows you up to 180 days to complete your application. Since the 180-day period began on the day we received the application, the deadline to make your application complete is **Monday, June 17, 2024.**

IV. Determination of a Complete Application
The application will be determined complete when you have submitted:

1. All of the requested information included in Section I, above. If you cannot provide all of the requested information at one time and intend to submit additional information, please include a written statement with each separate submittal indicating that you still intend to provide the additional missing information by the **Monday, June 17, 2024** deadline, **or**

2. Some of the requested information included in Section I, above, and a written statement that no additional information will be provided; **or**

3. A written statement that none of the requested information included in Section I, above, will be provided.

Please be aware that not submitting the requested information may result in your application being denied. The information is needed to demonstrate the approval criteria are met. Once the application is deemed complete, review of your application can proceed using the information you have provided.

Your application will be approved if it meets the relevant land use review approval criteria. It is your responsibility to document how the approval criteria are met. The items listed above will help provide that documentation.

Voiding of Application
If your application is not complete by **Monday, June 17, 2024**, it will be voided, and the application fee will not be refunded. The City's land use review procedures are outlined in Chapter 33.730 of the Portland Zoning Code.

Please contact me if you have any questions about this letter. My telephone number is 503-865-6714 and my e-mail address is Andrew.Gulizia@portlandoregon.gov. Requested information noted above should be emailed to me. Please email me for file dropbox instructions if document or drawing file sizes are greater than 5MB. Please label all correspondence and materials you submit with the case number LU 23-111784.

Sincerely,

Andrew Gulizia, Planner
Land Use Services Division

cc: Paul Gagliardi, gagliardip@propserportland.us
Jonathan Malsin, jonathan@beamdevelopment.com

encl: BES memo, PBOT memo

CITY OF PORTLAND
ENVIRONMENTAL SERVICES

1120 SW Fifth Ave, Suite 613, Portland, Oregon 97204 ▪ Mingus Mapps, Commissioner ▪ Dawn Uchiyama, Director

Completeness Response

Date: January 4, 2024

To: Andrew Gulizia, BDS Land Use Services
503-865-6714, Andrew.Gulizia@portlandoregon.gov

From: Ella Ruth, BES Systems Development
503-823-8068, Ella.Ruth@portlandoregon.gov

Case File: LU 23-111784

Location: SE WATER AVE

Proposal: Conditional Use Review and Adjustments for new concert venue. Adjustments are requested to 33.266.200.B.1. (number of short-term bike parking spaces provided permanently on the site), 33.266.310.C.2.c. (number of Standard A loading spaces located entirely on the site) and 33.510.243.B.1. (ecoroof coverage).

BES provides the following comments in response to materials received for the purpose of determining completeness of the above-referenced Land Use application. Items requested in this memo should not be considered final, as staff reserves the right to request additional materials during the formal review period.

1. The applicant has submitted the minimum level of information for BES to recommend the application be deemed complete and to begin conducting a full review of the land use application. As staff begins reviewing the application against relevant approval criteria and BES code requirements, additional information may be requested.
2. BES requests clarity and alignment between the stormwater report and the associated CU narrative and application. For example, the stormwater report and the CU narrative indicate that stormwater will be managed with an at-grade planter, however, the application and site plan identify partial eco-roof coverage and an elevated stormwater planter. Please update the submittal materials so they are all in alignment.

PBOT
PORTLAND BUREAU OF TRANSPORTATION
1900 SW Fourth Ave., Suite 5000 Portland, OR 97201 503-823-5185
Fax 503-823-7576 TTY 503-823-6868 www.portlandoregon.gov/transportation

RESPONSE TO THE BUREAU OF DEVELOPMENT SERVICES REQUEST FOR COMPLETENESS

Portland Transportation
Development Review
Bureau of Transportation Engineering & Development

LU: 23-111784-000-00 LU Date: January 11, 2024

To: Andrew Gulizia, Bureau of Development Services, B299/R5000

From: Michael Pina, B106/800, 503-823-4249

Applicant: Johnathan Malsin, BEAM DEVELOPMENT
1001 SE WATER AVE., SUITE 400
PORTLAND OR

Location: SE WATER AVE (R673490)

TYPE OF REQUEST: Type 3 procedure CU - Conditional Use

DESCRIPTION OF PROJECT

Conditional Use Review and Adjustments for new concert venue. Adjustments are requested to 33.266.200.B.1. (number of short-term bike parking spaces provided permanently on the site), 33.266.310.C.2.c. (number of Standard A loading spaces located entirely on the site) and 33.510.243.B.1. (ecoroof coverage).

RESPONSE

Portland Transportation/Development Review (PBOT) has reviewed the application for completeness and offers the following comments.

- **Transportation Impact Study (TIS):** The applicant has submitted a TIS to support the Major Event Entertainment approval criteria listed in 33.815.215, which is being reviewed at this time. However, upon first review by PBOT Traffic Engineering, there are elements which will needed to be added or expanded upon prior to approval of the TIS. More information will be provided once review of the TIS is complete.

- **Bike Parking Adjustment:** PBOT is not supportive of waving the short-term bike parking. As recommended in the applicant's Transportation Demand Management (TDM) Plan C.2, paying into the bike fund allows PBOT to direct funding to install permanent bike racks and/or bike corals within the immediate vicinity of the subject site. ***PBOT does not support this Adjustment request.***

- **On-Site Loading Adjustment:** PBOT has concerns regarding the change in proposed truck loading from the Pre-Application Conference (22-128857 PC) to what was proposed in the TIS. PBOT's response in Pre-App stated, "*Providing sufficient on-site loading is to the site's benefit and PBOT does not recommend an Adjustment to loading*." However, as also noted, if requesting to waive or reduce on-site loading requirements, a Loading Demand Study is required. The applicant's TIS scope did not propose to waive on-site loading, therefore further analysis of potential off-site loading impacts was not reviewed prior to submittal of the formal TIS.

PBOT's Traffic Engineers have concerns regarding the safety of all modes by the proposed truck turning movements into eastbound SE Main St and then backing up across SE Water Ave into the proposed loading docks. The applicant will need to further demonstrate how all truck movements occurring west of SE Water Ave are possible or infeasible to avoid impacting road users of SE Water Ave. The applicant should also explore a property line adjustment or easement with the neighboring property to the west to accommodate on-site loading perpendicular to SE Main St, so Trucks are able to enter and exit SE Main in a forward motion.

PBOT understands the nature of large vehicles needing to access and deliver equipment to support the uses of the proposed development and is open to work with the applicant to explore safe alternative truck loading options to support the project.

Therefore, at this time, the applicant has not demonstrated to the satisfaction of the City Traffic Engineer that in the materials provided the proposed truck loading movements will not impede the safety of all modes utilizing the Right-of-Way, and as such does not support the truck routing and loading in the ROW as shown. ***This item remains outstanding.***

If approved, the following information will be required prior to PBOT' support of the Land Use application:

- Permits and Approvals: Depending on how the use is ultimately permitted, preliminary support / approvals must be documented and attached as an exhibit, provided prior to PBOT's support of the Land Use application. ***This item remains outstanding.***
- Neighboring Property Agreements: TIS materials noted that "*additional buses will be staged elsewhere on private property*". With a full build out of the site, there are not additional locations on the subject site to place buses. Any agreements with other nearby properties to store additional vehicles will need to be documented and attached as an exhibit. ***This item remains outstanding.***
- Traffic Control Plan: TIS materials did not provide specifications on a proposed Traffic Control Plan when loading vehicles. Traffic Control Plans are subject to permitting through PBOT Temporary Street Use and Permitting (TSUP). See more information under TDM below. ***This item remains outstanding.***

- **Driveway Design Exception (DDE):** In accordance with TRN 10.40.E.1.a(4), Commercial uses are permitted a driveway width between 20-24 feet wide. The submitted plan proposes a driveway much wider than standard. The applicant has not submitted a DDE application at time of response. An approved DDE will be needed prior to PBOT's support of the Land Use application. ***This item remains outstanding.***

- **TDM Plan:** The applicant's TDM is lacking information needed to support the Conditional Use request.
  - TDM Strategy B.2 recommended temporary closure of SE Main St to facilitate event loading and staging. PBOT generally supports this strategy, however, additional information including but not limited to the limits of closure, length of closure, number of times per year, site plan, and location of fire lane. etc. is needed to complete our review. ***This item remains outstanding.***

    Street closures are permitted through PBOT Temporary Street Use and Permitting (TSUP) program. Current rates are $396/week for a street closure, plus an additional $131/week for a sidewalk closure. TSUP fees are updated annually. Moreover, twice a year, there are moratoriums on permits in this area due to city-wide events. More information can be found here: https://www.portland.gov/transportation/permitting/temporary-street-use-permitting-tsup.

    This strategy also recommended temporary bike and scoter parking in this area, thus mixing loading / back-of-house uses with event attendees. PBOT encourages the applicant to reconsider this strategy as mixing users could be problematic.

  - TDM Strategy B.1 & C.1 recommended temporary closure of SE Salmon to facilitate bike and scoter parking. PBOT generally supports this strategy, however, additional information including but not limited to the limits of closure, length of closure, number of times per year, site plan, and

location of fire lane / through bike lane, etc. is needed to complete our review. Similar to above, closure would incur additional TSUP permits and fees. ***This item remains outstanding.***

The applicant should be aware that closure of two streets and two sidewalks approximately every weekend could cost the applicant approximately $54,808 per year in fees.

Strategy B.1 also recommended to further study the feasibility of permanent closure of both lanes of SE Salmon Street west of SE Water Ave. Portland Transportation System Plan (TSP) classifies this section of SE Salmon as a Major City Walkway, Major City Bikeway and is the primary route connecting to the Eastbank Esplanade. ***PBOT does not support this TDM measure.***

- TDM Strategy B.3 will be completed by the applicant abutting the site associated with required frontage improvements.

- TDM Strategy E.1 calls for designated special event loading/ride hailing zones on streets that do not border the proposed site. This is not a typical PBOT process and is not supported by PBOT at this time. The applicant should consider, however, the utilization of SE Main St as the location for Ride Hailing services.

- Curb Extension into SE Water: TIS materials indicate that a new curb extension is proposed at SE Salmon St. However, this location is identified on PBOT's Curb Extension Exemption map as noted in TRN 1.28. Therefore, no curb extension will be permitted at this location. Please remove from plans.

Therefore, PBOT recommends the application be deemed incomplete until the aforementioned items can be addressed.

From: Suzannah Stanley
To: Gulizia, Andrew; Pina, Michael
Cc: Jonathan Malsin; Krueger, Kurt
Subject: Re: CEV bike parking solution
Date: Tuesday, June 25, 2024 8:31:05 AM
Attachments: image002.png

OK, thanks. We will talk about that and let you know.

I can now confirm that we are definitely going to withdraw the bike parking adjustment. Thanks again, Michael, for the additional explanation and plan from PBOT.

Suzannah Stanley
D 971-346-3808 **C** 503-839-7036
Land Use Planning
Senior Associate
Professional Licenses & Certifications

From: Gulizia, Andrew <Andrew.Gulizia@portlandoregon.gov>
Sent: Monday, June 24, 2024 4:22 PM
To: Pina, Michael <Michael.Pina@portlandoregon.gov>; Suzannah Stanley <SStanley@mcknze.com>
Cc: Jonathan Malsin <jonathan@beamdevelopment.com>; Krueger, Kurt <Kurt.Krueger@portlandoregon.gov>
Subject: RE: CEV bike parking solution

You could submit revised documents into the record anytime before the July 10th public hearing. (But I'll defer back to Michael if he needs anything to be submitted before he finishes his memo this week.)

Andy Gulizia, City Planner
City of Portland Bureau of Development Services
Title 33 Section, Land Use Services Division
1900 SW 4th Avenue, Suite 5000
Portland, OR 97201 (503) 865-6714
work hours: Monday-Friday, 8:00 – 5:00

From: Pina, Michael <Michael.Pina@portlandoregon.gov>
Sent: Monday, June 24, 2024 4:04 PM
To: Stanley, Suzannah <SStanley@mcknze.com>; Gulizia, Andrew <Andrew.Gulizia@portlandoregon.gov>
Cc: Jonathan Malsin <jonathan@beamdevelopment.com>; Krueger, Kurt <Kurt.Krueger@portlandoregon.gov>
Subject: RE: CEV bike parking solution

I'll defer to Andy on that one.

Michael Piña | Development Review Planner II

Portland Bureau of Transportation
Phone: 503.823.4249
michael.pina@portlandoregon.gov

From: Suzannah Stanley <SStanley@mcknze.com>
Sent: Monday, June 24, 2024 4:01 PM
To: Pina, Michael <Michael.Pina@portlandoregon.gov>; Gulizia, Andrew <Andrew.Gulizia@portlandoregon.gov>
Cc: Jonathan Malsin <jonathan@beamdevelopment.com>; Krueger, Kurt <Kurt.Krueger@portlandoregon.gov>
Subject: RE: CEV bike parking solution

Hi Michael,
When would you and Andy need those by?

Suzannah Stanley
D 971-346-3808 **C** 503-839-7036
Land Use Planning
Senior Associate
Professional Licenses & Certifications

From: Pina, Michael <Michael.Pina@portlandoregon.gov>
Sent: Monday, June 24, 2024 3:09 PM
To: Suzannah Stanley <SStanley@mcknze.com>; Gulizia, Andrew <Andrew.Gulizia@portlandoregon.gov>
Cc: Jonathan Malsin <jonathan@beamdevelopment.com>; Krueger, Kurt <Kurt.Krueger@portlandoregon.gov>
Subject: RE: CEV bike parking solution

You're welcome Suzannah, my pleasure.

If not too much trouble, I feel it would be a cleaner application if you were able to remove that section in the narrative, findings, and TIS. If not, Andy indicated he would address it directly in his staff report and presentation.

Thank you.

Michael Piña | Development Review Planner II
Portland Bureau of Transportation
Phone: 503.823.4249
michael.pina@portlandoregon.gov

From: Suzannah Stanley <SStanley@mcknze.com>
Sent: Monday, June 24, 2024 2:51 PM
To: Gulizia, Andrew <Andrew.Gulizia@portlandoregon.gov>; Pina, Michael <Michael.Pina@portlandoregon.gov>
Cc: Jonathan Malsin <jonathan@beamdevelopment.com>; Krueger, Kurt

<Kurt.Krueger@portlandoregon.gov>
Subject: RE: CEV bike parking solution

Thanks very much for this additional explanation, Michael. Helpful.

I believe we will be withdrawing this Adjustment. Just waiting on a 100% confirm statement from Jonathan.

Suzannah Stanley
D 971-346-3808 **C** 503-839-7036

Land Use Planning
Senior Associate
Professional Licenses & Certifications

From: Gulizia, Andrew <Andrew.Gulizia@portlandoregon.gov>
Sent: Monday, June 24, 2024 8:24 AM
To: Pina, Michael <Michael.Pina@portlandoregon.gov>; Suzannah Stanley <SStanley@mcknze.com>
Cc: Jonathan Malsin <jonathan@beamdevelopment.com>; Krueger, Kurt <Kurt.Krueger@portlandoregon.gov>
Subject: RE: CEV bike parking solution

Hi Suzannah,

The BDS staff report wouldn't recommend approval of this Adjustment without PBOT's support for it, so it will be easiest if you agree to withdraw this Adjustment. At this point in the process (before the staff report is published) we can refund $1,181.10 of the Adjustment Review fee if you withdraw.

If you choose not to withdraw, you could still plan to make your best argument to the Hearings Officer for approval of this Adjustment. I'm sure you could make a well-reasoned argument, but I do think Michael's point about PBOT control of the public right-of-way is persuasive.

Whatever you decide on this question won't affect my recommendation for the rest of the proposal. Please just let me know by tomorrow afternoon, if possible, if you decide to withdraw this Adjustment request.

Thanks,

Andy Gulizia, City Planner
City of Portland Bureau of Development Services
Title 33 Section, Land Use Services Division
1900 SW 4th Avenue, Suite 5000
Portland, OR 97201 (503) 865-6714
work hours: Monday-Friday, 8:00 – 5:00

From: Pina, Michael <Michael.Pina@portlandoregon.gov>
Sent: Friday, June 21, 2024 5:59 PM
To: Stanley, Suzannah <SStanley@mcknze.com>

Cc: Gulizia, Andrew <Andrew.Gulizia@portlandoregon.gov>; Jonathan Malsin <jonathan@beamdevelopment.com>; Krueger, Kurt <Kurt.Krueger@portlandoregon.gov>
Subject: RE: CEV bike parking solution

Hello Suzannah and Jonathan. Thank you for reaching out to resolve the short-term Bike Parking Adjustment.

First, I must correct two statements from our previous conversation. I incorrectly said I had documentation with your team that this Adjustment had been worked out. Looking back at my emails, I couldn't find any. But we did have a virtual meeting with Jonathan in which City Traffic Engineer Wendy Cawley, Public Works Development Director Kurt Krueger and myself specifically discussed PBOT's proposal to place a significant amount of bike parking infrastructure with payment of the bike fund fee. (See attached schematic) While I do not have notes from that meeting, I felt we had sufficiently vetted the proposal to Jonathan and walked away with a common understanding that we would not support the requested Adjustment. Secondly, I was under the impression that an agreement was being written for said bike parking. After checking in with that section of PBOT, I learned those aren't prepared until time of deployment. I apologize for my misinformation.

And for why. In accordance with 17.25.005, PBOT has "*jurisdiction and exercises regulatory management over all public right-of-way within the City, as provided under City Charter, ordinances, and Oregon law."* Because the use of the public Right-of-Way (ROW) may change in the future, PBOT cannot support mitigating private developmental impacts within the ROW, which could cause the site to be out of conformance with a land use decision. Therefore, because of PBOT's overall authority to manage the ROW, the appropriate way to mitigate the requirement is to pay into the bike fund in accordance with 33.266.210.E.1.b as a way to comply with the purpose and intent of the code outright. Therefore, PBOT will not support an Adjustment to waive all short-term bike parking – and the provision to comply – as we find the proposal does not (A.) equally or better meet the purpose of the regulation to be modified, (B.) consistent with the classifications of the adjacent streets and the desired character of the area, nor do the (C.) cumulative effect of the adjustments results in a project which is still consistent with the overall purpose of the zone.

Given the Major City Bikeway classification of SE Salmon, and being that gateway to the Central Eastside district to and from the Esplanade, we both agree that significant bike parking in this location is great idea and should happen. PBOT does not typically commit to such an investment for a specific development but felt prudent we partnered with the project to support the City's mode-split goals. Payment into the bike fund – and thus meeting the requirement outright – would provide direct investment to abutting site supporting the project.

I need to get my response to Andy by Wednesday, June 26th at the latest. I would encourage you to withdraw your short-term bike parking Adjustment prior to providing my response.

Thank you again the opportunity to provide the applicant team clear direction.

Michael Piña | Development Review Planner II
Portland Bureau of Transportation
Phone: 503.823.4249
michael.pina@portlandoregon.gov

From: Suzannah Stanley <SStanley@mcknze.com>
Sent: Thursday, June 20, 2024 4:27 PM
To: Pina, Michael <Michael.Pina@portlandoregon.gov>
Cc: Gulizia, Andrew <Andrew.Gulizia@portlandoregon.gov>; Jonathan Malsin <jonathan@beamdevelopment.com>
Subject: CEV bike parking solution

Hello Michael,
I'm out of the office tomorrow so just checking in on any language you can provide about the short-term bike parking spaces PBOT would plan to provide in the ROW in front of our venue. Can you Reply All with an update?

Thanks very much,

Suzannah Stanley
D 971-346-3808 **C** 503-839-7036

Land Use Planning
Senior Associate
Professional Licenses & Certifications

Disclaimer

Mackenzie.
ARCHITECTURE ▪ INTERIORS ▪ STRUCTURAL, CIVIL, AND TRAFFIC ENGINEERING
LAND USE AND TRANSPORTATION PLANNING ▪ LANDSCAPE ARCHITECTURE
PORTLAND, OR | VANCOUVER, WA | SEATTLE, WA
www.MACKENZIE.inc

Land Use Hearing Intake Form Template

- Hearings Office Case No.: 4240010
- BDS Assigned Case Number: LU 23-111784 CU AD
- Applicant/Owner: Suzannah Stanley
- Appellant: _____
- Site Address: west side of SE Water Ave. between SE Salmon St. and SE Main St.
- Planner: ANDY GULIZIA
- Planner's Phone Number: (503) 865-6714
- Deemed complete date: May 23, 2024
- Length of time needed: 2 HOURS
- Level of complexity: Medium
- Level of controversy: Low
- Type: III
- Is the HO Hearings Room 3000 large enough? (Capacity: 49)
  Yes
- Is this case subject to 100 day clock?: No
- Current date of 120th-day (re-calculate if necessary): September 20, 2024
- What date is the 51st day?: July 13, 2024
- Do you have a signed waiver or extension: No
- Preferred hearing dates (include 3): July 10, 2024, July 08, 2024, July 03, 2024, (Monday or Wednesday priority days)

Hearings Office
City of Portland
1900 SW 4th Avenue, Room 3100, Portland, OR 97201 phone: 503.823.7307
www.portland.gov/omf/hearings fax: 503.823.4347
email: HearingsOfficeClerks@portlandoregon.gov

Land Use Hearing Participation Information

Case Number: 23-111784 CU AD
(Hearings Office Case Number 4240010)
Site Address: West Side of SE Water Ave. between SE Salmon St. and SE Main St.
Hearing Date: July 10, 2024
Hearing Time: 1:00 PM

The above-referenced land use hearing will take place via the Zoom platform.

Zoom Participation Options and Instructions

Zoom Option

- You will need an internet connection and a personal computer or other internet capable device.
- You can listen, view the City Planner's PowerPoint presentation, and you have the opportunity to provide oral testimony.
- Instructions:

Go to:
https://us06web.zoom.us/j/83884494460

Telephone Option

- You will need a telephone.
- You will be able to listen and testify but you will not be able to view documents and presentations shared on the Zoom platform (if any).
- Instructions:

Dial: +1 669 900 6833

Meeting ID: 838 8449 4460 #

#

Written Testimony

- Prior to the Hearing and until the close of evidence, you may submit written testimony. In other words, written testimony can be provided up to the close of the record, which will be announced at the hearing.
- *Note: A document's timeliness is determined by the date/time when it is received by the Hearings Office Clerks.*
- Please reference the case number in any documents you wish to submit.
- Instructions/Options:

Online Case Management System
https://www.portland.gov/omf/hearings/land-use

Email: HearingsOfficeClerks@portlandoregon.gov
Fax: 503-823-4347
Mail: Hearings Office, 1900 SW 4th Avenue, Room 3100,
Portland, OR 97201

View File Contents

We use a fully electronic case file. Your online viewing options are available at our website: https://www.portland.gov/omf/hearings/land-use
If you do not have online access, you may make a written request for a hard copy of any exhibit to be mailed to you.

Meaningful Access

The City of Portland is committed to providing meaningful access.
For accommodations, modifications, translation, interpretation, or other services, please call 503-823-7307, the TTY at 503-823-6868 or the Oregon

Relay Service: 711. Traducción e interpretación | Chuyển Ngữ hoặc Phiên Dịch | 翻译或传译
Письменныйили устный перевод | 翻訳または通訳 | Traducere sau Interpretare 번역 및 통역 | Письмовий або усний переклад | Turjumida ama Fasiraadda|

Questions or Concerns

You may contact the Hearings Clerks via email at HearingsOfficeClerks@portlandoregon.gov or by calling 503-823-7307.

Hearing Office
City of Portland
1900 SW 4th Avenue, Room 3100, Portland, OR 97201
www.portlandoregon.gov/hearings
email: HearingsOfficeClerks@portlandoregon.gov
phone: 503.823.7307
fax: 503.823.4347

Land Use Hearing scheduled

A public hearing in land use case no. 4240010 has been scheduled for 1:00 PM, July 10 2024The Hearings Office Land Use Administrative Rules require that the Bureau of Development Services make available a copy of its staff report and recommendation in a Type III proceeding at least 10 days before the date of the hearing, and the administrative decision and appeal in a Type II proceeding at least 7 days before the date of the hearing.

In the discretion of the Hearings Officer, failure of the Bureau of Development Services to make available the report or administrative decision and appeal within the time required by the Code may constitute grounds for continuing the hearing or holding the record open. In so determining, the Hearings Officer will consider the particular circumstances of the case, the possible prejudice to the persons failing to receive a copy of the material or to any other party, and the reason for the failure to comply.

Carmen Rubio, Commissioner
David Kuhnhausen, Interim Director
Phone: (503) 823-7300
TTY: 711
www.portland.gov/bds

STAFF REPORT AND RECOMMENDATION TO THE HEARINGS OFFICER

CASE FILE: LU 23-111784 CU AD
(Pre-Application Conference # 22-128857 PC)
REVIEW BY: Hearings Officer (Hearings Office Case # 4240010)
WHEN: July 10, 2024, at 1:00 PM

This land use hearing will take place online using the Zoom platform. See the instructions on how to participate remotely (online or by phone) at this link: https://www.portland.gov/bds/zoning-land-use/documents/notice-land-use-hearing-lu-23-111784-cu-ad/download or contact the Hearings Office at HearingsOfficeClerks@portlandoregon.gov or 503-823-7307. Additional Hearings Office information is available at www.portland.gov/omf/hearings/land-use.

It is important to submit all evidence to the Hearings Officer. City Council will not accept additional evidence if there is an appeal of this proposal.

BUREAU OF DEVELOPMENT SERVICES STAFF: ANDREW GULIZIA / ANDREW.GULIZIA@PORTLANDOREGON.GOV

GENERAL INFORMATION

Applicant's Representative: Suzannah Stanley
Mackenzie
1515 SE Water Ave., Ste. 100
Portland OR 97214
(971) 346-3808
sstanley@mcknze.com

Applicant: Johnathan Malsin
Beam Development
1001 SE Water Ave., Ste. 400
Portland, OR 97214

Property Owner's Agent: Paul Gagliardi
PDC dba Prosper Portland
222 NW 5th Ave.
Portland, OR 97209

Property Owner: PDC dba Prosper Portland
220 NW 2nd Ave. #200
Portland, OR 97209

Site Address: west side of SE Water Ave. between SE Salmon St. and SE Main St.

Legal Description: LOT 1 TL 3602, PARTITION PLAT 2016-7; LOT 1 TL 4305, PARTITION PLAT 2016-8; LOT 1 TL 1705, PARTITION PLAT 2016-9
Tax Account No.: R649670250, R649670290, R649670330
State ID No.: 1S1E03AD 03602, 1S1E03AD 04305, 1S1E03AD 01705

Quarter Section:	3130
Neighborhood:	Buckman, contact John Rose or Josh Baker at buckmanlandusepdx@gmail.com
Business District:	Central Eastside Industrial Council, contact ceic@ceic.cc.
District Coalition:	Southeast Uplift, contact at operations@seuplift.org
Plan District:	Central City (Central Eastside Subdistrict)
Zoning:	IG1 – General Industrial 1
Case Type:	CU AD – Conditional Use Review and Adjustment Review
Procedure:	Type III, with a public hearing before the Hearings Officer. The decision of the Hearings Officer can be appealed to City Council.

Proposal: The applicant proposes to construct a new, 62,000-square-foot building on this site to be used as a concert venue with 1,280 seats and a maximum spectator capacity of 3,500. The applicant requests Conditional Use Review approval for a new Major Event Entertainment use in the IG1 zone. Type III Conditional Use Review is required by Zoning Code Sections 33.140.100.C and 33.815.040.A.1.

The applicant also requests approval of two Adjustments to Zoning Code requirements for this project:

- To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c). The applicant proposes to create 2 truck loading spaces which are primarily in the public right-of-way adjacent to the site. However, loading areas in the public right-of-way do not count toward the Zoning Code requirement.

- To reduce the amount of ecoroof area required from 14,617 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 2,100 square feet (Zoning Code Section 33.510.243.B.1).

Note: The applicant originally requested three Adjustments, including an Adjustment request to Zoning Code Section 33.266.200.B.1 to reduce the minimum number of on-site, short-term bike parking spaces from 32 to zero. The applicant had proposed to construct bike parking in the public right-of-way adjacent to the site as justification for this Adjustment. After discussion with the Portland Bureau of Transportation (PBOT), the applicant decided to withdraw this Adjustment request (Exhibit G-3). If this land use review is approved, the applicant will pay into PBOT's bike parking fund when the building permit is issued, as required by Zoning Code Section 33.266.210.E.1.b when there is insufficient space on-site to provide the required short-term bike parking. PBOT would then construct and maintain bike parking in the public right-of-way.

Relevant Approval Criteria: To be approved, this proposal must comply with the approval criteria of Title 33, the Portland Zoning Code. The applicable approval criteria are:

- Zoning Code Section 33.815.215.A-D (Conditional Use Review); and
- Zoning Code Section 33.805.040.A-F (Adjustment Review).

The Portland Zoning Code is available online at https://www.portland.gov/code/33.

ANALYSIS

Site and Vicinity: The subject site consists of three undeveloped lots owned by Prosper Portland in the Central Eastside industrial area. The middle lot, which abuts SE Salmon Street to the north, SE Water Avenue to the east, and SE Main Street to the south, is the subject of this development proposal. No new development is proposed for the other two Prosper Portland lots to the north and south, and these lots would continue to be used as parking. The site is at the

western edge of the industrial area, and properties to the north, east, and south of the Prosper Portland property are developed with commercial and industrial buildings. To the west of the subject site is the I-5 freeway right-of-way, and beyond that is the Eastbank Esplanade and the Willamette River. The on-ramp to the Hawthorne Bridge is just south of the site.

Zoning: The IG1 (General Industrial 1) zone is one of the three zones that implement the Industrial Sanctuary map designation of the Comprehensive Plan. The zone provides areas where most industrial uses may locate, while other uses are restricted to prevent potential conflicts and to preserve land for industry. IG1 areas generally have smaller lots and a grid block pattern.

The Central City plan district implements the Central City Plan and other plans applicable to the Central City area. The district implements portions of these plans by adding code provisions which address special circumstances existing in the Central City area.

Land Use Review History: Below are prior land use review decisions that include the subject site. None of these land use review decisions have conditions of approval that affect the current proposal.

- LU 14-235124 LC. 2015 approval of a lot consolidation.
- LU 11-171075 AD. 2011 approval of Adjustments to landscaping and exterior activity requirements for a temporary (3-year) asphalt and concrete processing use. The approval has since expired.
- LU 00-00704 GW AD. 2001 approval of a Greenway Review and Adjustments to landscaping and nonconforming upgrades requirements for a parking lot.
- LU 00-00134 GW. 2000 approval of a Greenway Review for new fencing.
- CU 063-86. 1986 Conditional Use Review approval for fill associated with a Willamette River greenway trail.

Agency Review: A "Request for Response" was sent to City agencies May 29, 2024 (Exhibit D-1). The following City reviewers responded:

- The Bureau of Environmental Services (BES) evaluated the approval criterion related to sanitary sewer service and stormwater disposal. The response is referenced in the findings for Zoning Code Section 33.815.215.A.4, below. (Exhibit E-1)
- PBOT evaluated the approval criteria related to the transportation system. The response is referenced in the findings for Zoning Code Section 33.815.215.A.1-3, below. (Exhibit E-2)
- The Water Bureau responded with no concerns. (Exhibit E-3)
- The Fire Bureau responded with information on building permit requirements and no objections to approval. (Exhibit E-4)
- The Police Bureau responded that police can adequately serve the proposed development. (Exhibit E-5)
- The Site Development Review Section of the Bureau of Development Services (BDS) responded with information on building permit requirements and no objections to approval. (Exhibit E-6)

- The Life Safety Review Section of BDS responded with information on building permit requirements and no objections to approval. (Exhibit E-7)

- The Urban Forestry Division of the Parks Bureau responded with information on street tree requirements and no objections to the land use review proposal. (Exhibit E-8)

Neighborhood Review: Signs notifying neighbors of the public hearing were posted on June 6, 2024 (Exhibit D-3) and a "Notice of Public Hearing" was mailed to neighbors on June 20, 2024 (Exhibits D-4 and D-5). At the time this report was prepared, no public comments had been submitted into the record.

ZONING CODE APPROVAL CRITERIA

Conditional Use Review

33.815.215 Major Event Entertainment
These approval criteria ensure that the potentially large size and impacts of these uses are not harmful to surrounding areas and that transportation services are or will be sufficient to serve the use. The approval criteria are:

A. Public services.

1. The proposed use is in conformance with the street designations shown in the Transportation Element of the Comprehensive Plan;

Findings: PBOT reviewed the proposal and submitted the following response to criterion A.1 (Exhibit E-2):

At this location, the City's Transportation System Plan (TSP) classifies the following abutting streets as follows:

Street Name	*Traffic*	*Transit*	*Bicycle*	*Pedestrian*	*Freight*	*Emergency Response*	*Street Design*
SE Salmon St	*Local Service*	*Local Service*	*Major City Bikeway*	*Local Service in a Ped. Dist.*	*Freight District*	*Minor Response*	*Local Street*
SE Water Ave	*Traffic Access St*	*Local Service*	*Major City Bikeway*	*Major City Walkway in a Ped. Dist.*	*Priority Truck Street*	*Major Response*	*Neighbor-hood Main Street*
SE Main St	*Local Service*	*Local Service*	*City Bikeway*	*Local Service in a Ped. Dist.*	*Freight District*	*Minor Response*	*Local Street*

The proposed Conditional Use project is supportive of the surrounding street designations of the Transportation Element of the Comprehensive Plan and TSP classifications. This criterion is met.

Based on this finding from PBOT, staff finds criterion A.1 is met.

2. If the proposed use will be located in an industrial zone, it will not have a significant adverse effect on truck and freight movement;

Findings: PBOT reviewed the proposal and submitted the following response to criterion A.2 (Exhibit E-2):

> *The proposed use is located within the Central Eastside Industrial Sanctuary. The applicant's TIS* [Exhibit A-10] *provided an analysis of existing, projected no-build, and post-development multi-modal transportation patterns. Conclusions indicate that since all of the development is located west of SE Water Ave, with the abutting east-west streets of SE Salmon and SE Main terminate into the Eastbank Esplanade, the proposed development will not conflict with existing truck and freight movement throughout the district. This criterion is met.*

Based on this finding from PBOT, staff finds criterion A.2 is met.

3. Transportation system:

   a. The transportation system is capable of supporting the proposed use in addition to the existing uses in the area. Evaluation factors include safety, street capacity, level of service, connectivity, transit availability, availability of pedestrian and bicycle networks, access restrictions, neighborhood impacts, impacts on pedestrian, bicycle, and transit circulation. Evaluation factors may be balanced; a finding of failure in one or more factors may be acceptable if the failure is not a result of the proposed development, and any additional impacts on the system from the proposed development are mitigated;

   b. Measures proportional to the impacts of the proposed use are proposed to mitigate on- and off-site transportation impacts. Measures may include transportation improvements to on-site circulation, public street dedication and improvement, private street improvements, intersection improvements, signal or other traffic management improvements, additional transportation and parking demand management actions, street crossing improvements, improvements to the local pedestrian and bicycle networks, and transit improvements.

   c. Transportation improvements adjacent to the development and in the vicinity needed to support the development are available or will be made available when the development is complete or, if the development is phased, will be available as each phase of the development is completed.

Findings: PBOT reviewed the proposal and submitted the following response to criterion A.3 (Exhibit E-2):

> *33.815.215.A.3.a: The applicant's traffic engineer has evaluated each of the evaluation factors to determine that that transportation system is capable of supporting the proposed use in addition to the existing uses in the area. PBOT Traffic Engineers have reviewed the applicant's TIS and approved the methodologies, analyses, assumptions, findings, and conclusions with regard to intersection capacity, Level of Service (LOS), trip generation, multi-modal safety, etc. to confirm that the transportation-related approval criteria have been addressed. This criterion is met.*
>
> *The following is a summary of the applicant's TIS findings:*
>
> - *Safety: For vehicle safety, the applicant's traffic engineer utilized Oregon Department of Transportation's (ODOT) Crash Data System over a five-year period from January 2016 to December 2020. There were 66 crashes recorded at the study intersections over the five-year period (see Table 4), with the most crashes occurring at the SE*

Stark St/SE Grand Ave and SE Stark St/SE MLK Jr Blvd intersections. Seven involved people walking or biking, including one at the SE Water Ave/SE Salmon St intersection. The most common collision types at the study intersections were angle, turning and rear-end crashes, many of which show "no yield" or "disregarded traffic signal" as the cited cause. In addition, the Union Pacific study rail crossings along the segment between SE Stark Street and SE Clay Street also had three reported incidents in the past five years, two in 2020 and one in 2022, two at the SE Salmon Street and one at the SE Clay Street crossings (see Table 5). Each of these incidents included a train striking a pedestrian, with two resulting in a fatality and one resulting in an injury.

When an intersection's crash rate (crashes per million entering vehicles) is greater than the critical crash rate (an intersection's crash history compared to similar intersections, adjusting for volume), it's an indication that a design deficiency may exist and further study is warranted. As shown in Table 6, one of the identified intersections is located at the intersection of SE Water Ave/SE Salmon St – where the proposed use is located. This is a 4-leg intersection with stop control of the side street approaches. Most of the collisions were angle/rear end type (4 of the 6 total collisions). Three of the collisions were caused by drivers failing to yield or passing the stop sign, two were caused by drivers running into a stopped or parked vehicle, and one was caused by a bike passing the stop sign.

PBOT standards are designed to provide safe conditions for all modes, especially pedestrians and cyclists. The applicant will be required to dedicate property along all three frontages and reconstruct the abutting pedestrian corridor to City standards, including safety improvements such as striped crosswalk, additional lighting, and curb extensions, mitigating potential conflicts in the future. PBOT will submit additional comments related to safety into the record prior to the public hearing.

- *Street Capacity/Level of Service (LOS): To determine the pre-build and post-build intersection capacity and LOS, turning movement data was obtained for the study intersections during the weekday and weekend pre-event period (6 p.m. to 8 p.m.) and post-event period (10:00 p.m. to 12:00 a.m.). Daily motor vehicle count data was also collected adjacent to the proposed venue along SE Water Avenue, south of SE Salmon Street and north of SE Main Street. The count data indicates that approximately 4,900 vehicles pass the proposed venue along SE Water Avenue during an average weekday. Of these vehicles, 1,300 travel northbound and 3,600 travel southbound. The highest number of trips along SE Water Avenue occurs from 5:00 – 6:00 p.m., with 488 vehicles passing the proposed venue (157 northbound and 331 southbound). During the pre-event and post-event peak hours, 165 and 35 vehicles pass the proposed venue along SE Water Avenue, respectively. For City study intersections along SE Water Avenue not designated on the Metro Regional Transportation Plan Arterial and Throughway Network, the City of Portland standards require a LOS "D" or better to be maintained for signalized intersections and a LOS "E" or better for intersections with stop control. As shown in Table 7, all study intersections meet the current mobility targets during the weekday and weekend pre-event and post event peak hours. All intersections along SE Water Avenue operate with a LOS B or better, while the signalized intersections at SE Stark Street/SE Grand Avenue and SE Stark Street/SE Martin Luther King Jr Boulevard operate with a LOS C or better, well below the current mobility targets.*

  For Post-build expectations, Table 17 shows the future 2025 intersection operations at study intersections, with the proposed venue. As shown, all study intersections are expected to continue to meet mobility targets despite the added traffic growth from the proposed venue through 2025, despite an expected increase up to 14

percent during the pre-event peak hour and up to 41 percent during the post-event peak hour. All intersections along SE Water Avenue are expected operate with a LOS C or better, while the signalized intersections at SE Stark Street/SE Grand Avenue and SE Stark Street/SE Martin Luther King Jr Boulevard also operate with a LOS C or better. Therefore, the system evaluation found no street capacity or level of service impacts with the proposed venue, as shown in Table 17, 18 and 19.

- *Pedestrian, Cycling, and Transit Availability: The proposed venue is very accessible to pedestrians and bicyclists and is well-served by a network of continuous sidewalks and bike facilities on the surrounding streets between nearby existing private vehicle parking, bike parking, ride hailing or transit stops. The proposed venue is also adjacent to existing bikeways along the Eastbank Esplanade, SE Water Avenue and SE Salmon Street. Current transit service near the proposed venue is primarily accessed via stops located on SE Grand Avenue and SE Martin Luther King Jr Boulevard between SE Salmon Street and SE Taylor Street, on the SE Madison Street and SE Hawthorne Boulevard viaducts (accessed via stairs from SE Water Avenue), on the SE Morrison Street and SE Belmont Street viaducts (accessed via stairs from SE Water Avenue), along SW 1st Avenue in downtown Portland across the Morrison Bridge, and near SE Tilikum Way. Event attendees and employees who utilize transit for travel to and from the venue would primarily utilize SE Water Avenue, SE Salmon Street and the Eastbank Esplanade to access transit services before and after events. Current schedules indicate that the TriMet Routes 6, 14 and 15 and MAX light-rail service near the proposed venue extends beyond the conclusion of a typical event (i.e., expected to be 11:00 p.m. or later for most events).*

- *Connectivity: The subject site located at the intersection of three ROWs meeting the City's Street spacing standards noted in 17.88.040. Therefore, additional connections are not required.*

- *Access Restrictions: Of the three frontages, SE Main Street is the lowest classified street, therefore the appropriate frontage to which provide vehicular access. As discussed further below, the applicant proposes to provide loading from SE Main Street, reviewed through a PBOT Angle Loading Permit.*

- *On-Street Parking Impacts: Parking surveys were conducted between 6:00 p.m. and 11:00 p.m. on a weekday (Thursday, July 27, 2023) and a weekend (Saturday, August 5, 2023) within a 0.25 mile or about a 10-minute walk of the proposed venue, which is generally considered a comfortable walking distance. This roughly includes the blocks bounded by the Willamette River to the west, SE Morrison Street to the north, SE Grand Avenue to the east and SE Clay Street to the south. On-street parking in the surveyed area is either permit parking (i.e., Zone G or Zone N permit) or available via a 2-hour time limit for non-permit holders and enforced on weekdays only from 7 a.m. to 6 p.m. in non-metered spots and 8 a.m. to 6 p.m. in metered spots. As shown in Table 14, about 1,318 parking spots were identified within the surveyed area, including 1,084 on-street parking stalls and 234 parking spots in public off-street lots (see Figure 16 and Figure 17). A maximum estimated parking occupancy for the entire surveyed area of 32 percent was observed during the weekday and 17 percent was observed during the weekend, both occurring in the 5:00 p.m. and 7:00 p.m. survey period.*

  Table 15 shows that a sold-out concert is estimated to generate demand for 915 parking spaces during both a weekday and weekend event, with attendee and employee arrivals occurring between 6:00 p.m. and 9:00 p.m. and most assumed to use parking locations within 0.25 miles of the proposed venue (i.e., 763 of the 915

parking spaces). The total occupied parking spaces with the proposed venue is estimated to be highest between 8:00 p.m. and 9:00 p.m. during both a weekday and weekend event when the attendee and employee parking demand is at its highest (i.e., demand for 763 spaces within 0.25 miles of the proposed venue). The parking occupancy rate during this period is estimated to reach 82 percent during a weekday event (i.e., 1,074 parking spaces) and 71 percent during a weekend event (i.e., 930 parking spaces) for the 1,318 parking spaces within 0.25 miles of the proposed venue. The estimated parking occupancy rates between 6:00 and 8:00 p.m. are under 80 percent for a weekday event and under 70 percent for a weekend event.

Table 16 shows that a weekday special event is estimated to generate demand for 131 parking spaces, with attendee and employee arrivals occurring between 12:00 p.m. and 3:00 p.m. and all are assumed to use parking locations within 0.25 miles of the proposed venue. The total occupied parking spaces with the proposed venue is estimated to be highest between 1:00 p.m. and 2:00 p.m., when 1,135 parking spaces are utilized. This represents an 86 percent occupancy rate for the 1,318 parking spaces within 0.25 miles of the proposed venue. The estimated parking occupancy rates between 12:00 and 1:00 p.m. and are 2:00 and 3:00 p.m. are at or below 84 percent. PBOT regularly evaluates the on-street parking demand and has the ability to adjust controlling factors in accordance with existing practices and policies.

- *Neighborhood Impacts: The applicant's TIS did not overtly address the potential of neighborhood impacts to the immediate vicinity or district as a whole. The purpose of the IG zone is to protect the Industrial Sanctuary area designated by the Comprehensive Plan. The Industrial Sanctuary zones identify areas where industrial uses may locate, while other uses - such as the current proposal - are restricted to prevent potential conflicts and to preserve land for industry. In this instance, the proposed venue is located in the outer portion of Central Eastside subdistrict, and the majority of proposed operations would occur when many industrial and allowed uses are closed, offsetting the impact to the district. PBOT shared concerns with the applicant that due to the proposed loading in SE Main St, the property directly to the south will be directly affected, which could impact the nature of future development of the neighboring property. PBOT recommends that a letter from the property owner (Prosper Portland) be provided acknowledging the proposed development.*

33.815.215.A.3.b: In accordance with 17.88.020, the proposed project will be required to dedicate and reconstruct the abutting frontages to City standards by providing a 12-ft wide pedestrian corridor along SE Salmon and SE Main streets, and a 15-ft wide corridor along SE Water Street. These improvements will be reviewed through a Public Works permit, which is to receive 30 percent concept approval and bond payment prior to issuance of the building permit. Additional frontage improvements such as street lighting, striped pedestrian crossings, curb extensions, signage, and preparation of ROW bike parking will also be evaluated at time of Public Works permit review.

The applicant also prepared a Transportation Demand Management (TDM) plan to reduce the impact of events on the transportation system and provide employees and attendees with information and incentives to use transportation methods other than single occupancy vehicles. The plan provides strategies to increase the walking, biking, transit, and ride hailing services to ensure that people who travel via motor vehicle effectively navigate to their parking, drop-off, or pick-up location with fewer delays than what would occur under an unmanaged setting. PBOT Parking Control and Traffic Engineering will evaluate ride hailing locations as deemed appropriate to serve the use and reserve the right to modify and relocate such service locations as the project comes online.

The applicant also identified several Capital Improvement Projects (CIP) in and around the area that will also help mitigate anticipated impacts and strengthen the City's mode-split goals.

Therefore, PBOT finds that with these measures, the transportation impact of the project will be able to sufficiently mitigate transportation-related impacts immediately surrounding the site and within the district. This criterion is met.

33.815.215.A.3.c: As noted above, all required frontage improvements, payment into the bike fund, and implementation of TDM strategies will be in place by the time the development is complete. This criterion is met.

In conclusion, based on the evidence included in the record, PBOT finds the applicant has demonstrated with required frontage improvements, implementation of proposed TDM measures, and adhering to strict conditions set forth in the required Angle Loading Permit, the proposed project will support access, safety, and function for users of all modes; and that the transportation system will be capable of supporting the proposed venue, in addition to accommodating the existing uses in the area.

PBOT has no objections to the proposed Major Event Entertainment Conditional Use, subject to the following conditions:

1. *The applicant must receive 30 precent Public Works concept approval and bond payment prior to issuance of building permit for required frontage improvements abutting the site.*

2. *The applicant must apply for and obtain an annual Angle Loading Permit for the proposed loading in SE Main Street. The applicant must adhere to all the conditions and stipulations of said permit for the life of the proposed use. If any conditions are found to be in violation, applicant may be fined and/or revocation of said Angle Loading Permit.*

3. *The applicant must implement the TDM measures identified the TDM plan within their control.*

4. *Applicant must assess their bike parking capacity on an annual basis for first 5 years and then every other year after that. That assessment shall include bike counts averages for events throughout the year. Applicant must send their assessment to PBOT Development Review and PBOT Active Transportation and Safety. If demand consistently exceeds provided bike parking, the applicant must work with PBOT on remedies, including but not limited to adding additional bike racks or a contract for offering temporary bike racks during events.*

5. *The applicant shall provide a letter for the record that the property to the south (R673495) acknowledges and accepts the limitations placed upon the site with the proposed loading occurring in SE Main St by the subject property.*

Based on these findings from PBOT, and with the conditions of approval recommended by PBOT, staff finds criterion A.2 is met.

4. Public services for water supply, police and fire protection are capable of serving the proposed use, and proposed sanitary waste disposal and stormwater disposal systems are acceptable to the Bureau of Environmental Services.

Findings: The Water Bureau and the Fire Bureau reviewed the proposal and responded with no objections (Exhibits E-3 and E-4, respectively), indicating that adequate water supply and fire protection would be available. The Police Bureau reviewed the proposal and responded that police would be able to adequately serve the proposed use (Exhibit E-5). The Bureau of Environmental Services reviewed the application and found the proposed sanitary sewer connection and stormwater management plan are acceptable (Exhibit E-1). For these reasons, staff finds criterion A.4 is met.

B. Appearance. The appearance of the facility is consistent with the intent of the zone in which it is to be located and with the character of the surrounding uses and development;

Findings: Zoning Code Section 33.140.030.C states the intent of the General Industrial zones, including the IG1 zone that applies to the subject site:

The General Industrial zones are two of the three zones that implement the Industrial Sanctuary map designation of the Comprehensive Plan. The zones provide areas where most industrial uses may locate, while other uses are restricted to prevent potential conflicts and to preserve land for industry. The development standards for each zone are intended to allow new development which is similar in character to existing development. The intent is to promote viable and attractive industrial areas.

1. *General Industrial 1. IG1 areas generally have smaller lots and a grid block pattern. The area is mostly developed, with sites having high building coverages and buildings which are usually close to the street. IG1 areas tend to be the City's older industrial areas.*

2. *General Industrial 2. IG2 areas generally have larger lots and an irregular or large block pattern. The area is less developed, with sites having medium and low building coverages and buildings which are usually set back from the street.*

The site is at the western edge of an older industrial area, and the I-5 freeway and the Willamette River are just west of the site. The lots to the north and south of the proposed building are undeveloped, and no development is currently proposed for these lots. Properties east of the site, on the opposite side of SE Water Street, are developed with one- and two-story industrial and commercial buildings. A larger, four-story building (the Eastbank Commerce Center) is one block north of the proposed concert venue.

As intended for the IG1 zone, this area has a grid block pattern and relatively small lots for an industrial area. (The concert venue lot would be about 32,000 square feet after required street dedications.) Since this proposal is to construct a new building on a currently vacant lot, and since that building would be close to all three abutting streets, covering most of the lot area, staff finds the proposal is consistent with the intent of the IG1 zone to have "high building coverages and buildings which are usually close to the street."

The new building would have a four-story scale and a modern design with angled roof lines and minimal ornamentation other than rooftop plantings (Exhibit C-4). The applicant describes the design as like an "upscale warehouse" (Exhibit A-12, page 9), and Exhibit A-3 shows how the exterior design, though modern, reflects existing buildings in the area.

Staff finds the appearance of the proposed building would be both attractive and compatible with the industrial character of the area, consistent with the intent of the General Industrial

zones to "promote viable and attractive industrial areas." Since staff finds the appearance of the facility would be consistent with the intent of the IG1 zone and with the character of surrounding uses and development, staff finds criterion B is met.

C. Benefit. Public benefits of the proposed use outweigh any impacts that cannot be mitigated;

Findings: The applicant has identified several public benefits from the proposal (Exhibit A-12, page 9). The proposal would develop a currently vacant lot, and the concert venue would create a higher level of activity in the evenings to deter crime and support nearby bars and restaurants without interfering with industrial businesses that operate primarily in the daytime. In addition, the applicant would be required to install public improvements such as wider sidewalks and street trees around the development site.

However, neither the applicant nor staff has identified any negative impacts from the proposed Major Event Entertainment use that cannot be mitigated. The venue would largely operate outside the hours of operation of most businesses in the industrial area, and as stated in the findings for criterion A, public services, including the transportation system, are adequate to accommodate the proposed use.

Since there are no negative impacts identified that cannot be mitigated and which public benefits must outweigh, staff finds criterion C is not applicable.

D. In the campus institutional zones. These approval criteria allow Major Event Entertainment facilities to be part of an institutional campus. They also ensure that the impacts of the facility on nearby areas are mitigated and that affected neighbors have an opportunity to comment on the proposals for mitigation. The approval criteria are:

1. The facility is to be established as part of a school or college. Such facilities are prohibited as part of a medical center campus;

2. The facility is limited to events that feature the athletic or performance skills of students, faculty or staff or which supplement the institution's programs;

3. In the IR zone the facility is listed in the mission statement as part of the institution's impact mitigation plan;

4. In the IR zone the mitigation activities completed to implement the impact mitigation plan are adequate to mitigate for the expected impact of the facility. The location chosen and mitigation measures used are consistent with the institution's approved impact mitigation plan; and

5. All approved limited uses and major event entertainment uses in aggregate occupy 30 percent or less of all campus net building area including portions of parking structures associated with these uses. If the institutional campus includes structured parking, 250 square feet of the structured parking will be associated with the major event entertainment facility for each parking space associated with the facility. Size exceptions are prohibited.

Findings: The campus institutional zones are listed in Zoning Code Section 33.150.020. Since this site is not in a campus institutional zone, criterion D does not apply.

Adjustment Review

33.805.040 Approval Criteria
Adjustment requests will be approved if the applicant has demonstrated that approval criteria A through F, below, have been met.

A. Granting the Adjustment will equally or better meet the purpose of the regulation to be modified; and

Findings: The applicant is requesting two Adjustments:

- To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c).

- To reduce the amount of ecoroof area required from 14,617 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 2,100 square feet (Zoning Code Section 33.510.243.B.1).

Consistency with the purpose of each requirement to be modified is discussed below.

Loading
Zoning Code Section 33.266.310.A states the purpose of the on-site loading space requirement:

A minimum number of loading spaces are required to ensure adequate areas for loading for larger uses and developments. These regulations ensure that the appearance of loading areas will be consistent with that of parking areas. The regulations ensure that access to and from loading facilities will not have a negative effect on the traffic safety or other transportation functions of the abutting right-of-way.

The applicant proposes to use the SE Main Street right-of-way adjacent to the site for truck loading when needed, and this Adjustment is necessary because the Zoning Code requires loading areas that are on-site rather than in the right-of-way. However, the proposal would still accommodate two large trucks simultaneously, as required by Zoning Code Section 33.266.310.C.2.c, and the loading area would be as large as would be required by Zoning Code Section 33.266.310.D.1. The street would not have the appearance of a loading area or parking area when not in use for truck loading, and using the public street for loading rather than creating a dedicated loading area on-site reduces visual impacts by reducing the amount of pavement area required for the proposal. PBOT evaluated this proposal and found that using SE Main Street for truck loading in this case would not have a negative effect on traffic safety or other transportation functions in the right-of-way, as long as the applicant obtains and maintains continuous compliance with an Angle Loading Permit (Exhibit E-2). For these reasons, and with the condition of approval recommended by PBOT to require the Angle Loading Permit, staff finds the Adjustment request equally meets the purpose of the standard.

Ecoroof
Zoning Code Section 33.510.243.A states the purpose of the ecoroof requirement:

Ecoroofs provide multiple complementary benefits in urban areas, including stormwater management, reduction of air temperatures, mitigation of urban heat island impacts, air quality improvement, urban green spaces, and habitat for birds, plants and pollinators. The standards are intended to:
- *Maximize the coverage of ecoroofs;*

- *Allow for the placement of structures and other items that need to be located on roofs; and*
- *Support the architectural variability of rooftops in the Central City.*

Without this Adjustment, ecoroofs would be required over all the roof area with slopes not steeper than 25% and not covered by mechanical equipment and elevator and stairwell overruns (Zoning Code Section 33.510.243.B.1). The proposed building design incorporates large, sloping roof forms that are not steep enough to be exempt from this requirement (Exhibit A-8, page 7). While 2,100 square feet of ecoroof is proposed over parts of the roof, the applicant states the long spans of the sloped roof areas are not capable of supporting the weight of additional ecoroof area (Exhibit A-6, page 3).

Although a revised roof design could likely accommodate greater ecoroof coverage than proposed, staff finds the proposed building design illustrated in Exhibit C-4 would be unique in the area, supporting architectural variability as noted in the purpose statement above.

Staff also finds the proposal creates meaningful, complementary benefits that are intended to be provided by ecoroofs in the purpose statement above. Besides the 2,100 square feet of ecoroof area, the applicant proposes an additional 2,150 square feet of planted area on top of roof canopies, including a 1,500-square-foot stormwater planter on the south side of the building (Exhibit A-8, page 7). Stainless steel cables would allow plants to climb toward the roof (Exhibit C-4), and the applicant would also be required to plant new street trees adjacent to the site (Exhibits C-1 and E-8). With these features, the site would be much greener than it is currently and would appear greener than typical for sites in the industrial area. While most of the new greenery would not qualify as ecoroof area under Zoning Code Section 33.510.243.B.2, all the new plants and trees would reduce stormwater runoff, improve air quality, mitigate heat island impacts, and provide habitat for birds and insects. The stormwater management requirements for the site would be fully met (Exhibit E-1), and the landscaping plan for the ecoroofs and the other planters includes several plant varieties known to attract pollinators (Exhibit A-8, pages 14-15). The applicant states the planters would utilize a geocell grid to prevent soil erosion, and that plantings would be denser than typical (Exhibit A-12, page 16). The applicant also submitted an operations and maintenance plan that would promote the long-term success of the planters (Exhibit A-11). Finally, staff notes the un-planted roof areas would be painted white (Exhibit A-12, page 15), which would reflect solar radiation to reduce heat island impacts.

For all these reasons, staff finds the Adjustment request equally meets the purpose of the standard.

Summary
With the condition of approval recommended by PBOT for the Angle Loading Permit, staff finds each Adjustment request equally meets the purpose of the requirement to be modified. With the condition of approval, staff finds criterion A is met.

B. If in a residential, CI1, or IR zone, the proposal will not significantly detract from the livability or appearance of the residential area, or if in an OS, C, E, I, or CI2 zone, the proposal will be consistent with the classifications of the adjacent streets and the desired character of the area; and

Findings: Since the site is in an industrial (I) zone, the Adjustments must be consistent with the classifications of adjacent streets and the desired character of the area.

Street classifications
The Adjustment to the loading requirement would allow SE Main Street, which is classified as a Freight District Street, to be used for truck loading for this development. PBOT is supportive of this request. PBOT noted that truck loading has been traditionally accommodated in the right-of-way in this area, and that with continuous compliance with a PBOT-approved Angle Loading Permit, negative impacts on streets adjacent to the site are not expected (Exhibit E-2).

The Adjustment to the ecoroof requirement affects only the interior of the site and would have no impact on travel demand or the function of adjacent streets.

With the condition of approval recommended by PBOT for the Angle Loading Permit, staff finds the proposal is consistent with the adjacent street classifications.

Desired character of area
"Desired character" is defined in Zoning Code Chapter 33.910. Pursuant to this definition, the desired character for this site is determined by:

- the character statement for the IG1 zone
- the purpose statement for the Central City Plan District
- the Buckman Neighborhood Plan
- the Central City 2035 Plan

IG1 zone
The character statement for the IG1 zone is in Zoning Code Section 33.140.030.C:

> *The General Industrial zones are two of the three zones that implement the Industrial Sanctuary map designation of the Comprehensive Plan. The zones provide areas where most industrial uses may locate, while other uses are restricted to prevent potential conflicts and to preserve land for industry. The development standards for each zone are intended to allow new development which is similar in character to existing development. The intent is to promote viable and attractive industrial areas.*
>
> 1. *General Industrial 1. IG1 areas generally have smaller lots and a grid block pattern. The area is mostly developed, with sites having high building coverages and buildings which are usually close to the street. IG1 areas tend to be the City's older industrial areas.*
>
> 2. *General Industrial 2. IG2 areas generally have larger lots and an irregular or large block pattern. The area is less developed, with sites having medium and low building coverages and buildings which are usually set back from the street.*

The new building would cover most of the lot and would be close to each of the abutting streets, and as discussed in the Conditional Use Review findings, the quality building design would be compatible with nearby development and contribute to a more attractive industrial area. Staff finds the proposal is therefore consistent with the character intended for the IG1 zone, and that neither of the Adjustment requests would detract from this character.

Central City Plan District
The purpose statement for the Central City Plan District is in Zoning Code Section 33.510.010:

> *The Central City plan district implements the Central City 2035 Plan. The regulations address the unique role the Central City plays as the region's premier center for jobs,*

health and human services, tourism, entertainment and urban living. The regulations encourage a high-density urban area with a broad mix of commercial, residential, industrial and institutional uses, and foster transit-supportive development, pedestrian and bicycle-friendly streets, a vibrant public realm and a healthy urban river.

A new concert venue for 3,500 spectators at this location would broaden the use mix in the Central Eastside and reinforce the Central City's role as the premiere location in the region for entertainment and tourism. The location is easily accessible by multiple transit lines, and pedestrians and cyclists can easily access the site from the nearby Eastside Esplanade as well as from the neighborhood street grid. Neither of the Adjustment request would detract from the purpose of the Central City Plan District.

Buckman Neighborhood Plan
Staff finds the following objectives from the Buckman Neighborhood Plan to be relevant:

Objective 1.6. Support planning and design of new developments that enhance neighborhood livability.

Objective 1.7. Promote the development of a clear identity for commercial nodes on Burnside, Belmont/Morrison, Hawthorne and the Central Eastside.

Objective 5.1. Control neighborhood traffic and parking to ensure safety and livability for neighborhood residents.

Objective 5.2. Encourage alternatives to automobile use.

Objective 5.10. Discourage trucks from blocking the streets when loading and unloading, except in the designated truck zone.

Objective 6.16. Encourage visual, literary, and performing arts to thrive in Buckman.

Objective 7.2. Encourage pedestrian-oriented commercial development.

The proposal would create a new destination and amenity in the Buckman Neighborhood, support the performing arts, and contribute to a higher profile for the Central Eastside. Since the concert venue would be several blocks from residential areas, impacts on neighborhood livability would be minimal.

The development would have a pedestrian-oriented design with the building facades close to the street lot lines, improved public sidewalks, and no on-site motor vehicle parking. PBOT found that street parking in the vicinity would be adequate to support the development, and PBOT also recommended a condition of approval to require compliance with a transportation demand management (TDM) plan to limit single-occupancy vehicle trips associated with the proposed use.

The Adjustment to the loading requirement would allow trucks to partially, but not fully, block SE Main Street when loading or unloading, but only within a designated, PBOT-approved truck loading area. PBOT recommended a condition of approval requiring continuous compliance with an Angle Loading Permit to prevent truck loading from significantly impacting the functions of the public right-of-way (Exhibit E-2).

For these reasons, and with the conditions of approval recommended by PBOT, staff finds the proposal is consistent with the Buckman Neighborhood Plan.

Central City 2035 Plan
Staff finds the following statements from the Central City 2035 Plan to be relevant:

Goal 1.A. Portland's Central City is the preeminent regional center for commerce and employment, arts and culture, entertainment, tourism, education and government.

Policy 1.1. Regional image. Strengthen the roles of the Central City and Willamette River in enhancing a positive image for the city, region and state.

Policy 1.4. Tourism, retail and entertainment. Expand upon activities in the Central City that support tourism and complement economic success, vibrancy, and livability, with a special focus on retail, cultural events and institutions, public spaces, arts and entertainment, urban design, and transportation.

Policy 1.CE-1.a. Industrial center. Protect the Central Eastside as a centralized hub of industrial businesses and services that support the regional economy by serving other industrial districts and businesses located throughout the Portland metropolitan area.

Policy 3.16. Loading. Support the delivery of goods in the Central City. Pursue strategies that bring new ways of delivering goods to the Central City in a way that optimizes loading and freight access and makes efficient use of limited urban space.

Policy 5.6. Distinct and vibrant districts. Enhance the existing character and diversity of the Central City and its districts, strengthening existing places and fostering the creation of new urban places and experiences.

Central Eastside 2035 Vision. The Central Eastside is a large, multimodal and vibrant employment district where existing industrial and distribution businesses continue to thrive while the district's job base grows and diversifies to attract new and emerging industries.

The new investment on this site would broaden the use mix in the Central Eastside, reinforce the Central City's role as the region's premiere location for entertainment and tourism, and support a positive image of the city as a vibrant, healthy community.

Since the site is at the edge of the industrial area, and since the concert venue would operate in the evenings, the proposal would not significantly impact neighboring industrial businesses, which operate primarily in the daytime.

The Adjustment to allow truck loading from the SE Main Street right-of-way is supported by PBOT (Exhibit E-2) and would make efficient use of urban space by avoiding the need for a separate truck loading area on-site.

For these reasons, staff finds the proposal is consistent with the Central City 2035 Plan.

Summary
With the conditions of approval recommended by PBOT for the transportation demand management plan and the Angle Loading Permit, staff finds the proposal is consistent with the classifications of adjacent streets and with the desired character of the area. With the condition of approval, staff finds criterion B is met.

C. If more than one Adjustment is being requested, the cumulative effect of the Adjustments results in a project which is still consistent with the overall purpose of the zone; and

Findings: Zoning Code Section 33.140.030.C describes the purpose of the IG1 zone:

The General Industrial zones are two of the three zones that implement the Industrial Sanctuary map designation of the Comprehensive Plan. The zones provide areas where most industrial uses may locate, while other uses are restricted to prevent potential conflicts and to preserve land for industry. The development standards for each zone are intended to allow new development which is similar in character to existing development. The intent is to promote viable and attractive industrial areas.

1. *General Industrial 1. IG1 areas generally have smaller lots and a grid block pattern. The area is mostly developed, with sites having high building coverages and buildings which are usually close to the street. IG1 areas tend to be the City's older industrial areas.*

2. *General Industrial 2. IG2 areas generally have larger lots and an irregular or large block pattern. The area is less developed, with sites having medium and low building coverages and buildings which are usually set back from the street.*

As stated in the findings for criterion B, the new building would cover most of the lot and would be close to each of the abutting streets, and the quality building design would contribute to a more attractive industrial area. Staff finds the proposal is therefore consistent with the purpose statement above. The effects of the two Adjustment requests are to allow a smaller area of the roof to be ecoroof and to allow the SE Main Street right-of-way to be used for truck loading when needed. Whether considered individually or cumulatively, these effects do not detract from the proposal's consistency with the purpose of the IG1 industrial zone. Staff finds criterion C is met.

D. City-designated scenic resources and historic resources are preserved; and

Findings: City-designated scenic resources are identified on zoning maps with an "s," and historic resources are identified either with a dot or as being within the boundaries of a Historic or Conservation district. As there are no scenic resources or historic resources mapped on the subject site (Exhibit B), this criterion is not applicable.

E. Any impacts resulting from the Adjustment are mitigated to the extent practical; and

Findings: The Adjustment to waive the requirement for an on-site truck loading area would be mitigated by the truck loading area within the SE Main Street right-of-way. Though loading areas within the right-of-way do not count toward the Zoning Code requirement, the proposed loading area would be adjacent to the building's loading and staging room (Exhibit A-8, page 2) and would meet the dimensional requirements that would apply to an on-site loading area (Zoning Code Sections 33.266.310.C.2.c and 33.266.310.D.1).

The Adjustment to the ecoroof requirement would be mitigated by above-ground planters that would not count as ecoroofs but would create similar benefits. This Adjustment is also mitigated by the applicant's plan to paint un-planted roof areas white to reduce heat island impacts.

Staff finds the impacts of both Adjustment requests are mitigated to the extent practical and that criterion E is therefore met.

F. If in an environmental zone, the proposal has as few significant detrimental environmental impacts on the resource and resource values as is practicable;

Findings: Environmental overlay zones are designated on zoning maps with either a "p" (Environmental Protection overlay zone) or a "c" (Environmental Conservation overlay zone). As there are no environmental overlay zones mapped on the subject site (Exhibit B), this criterion is not applicable.

DEVELOPMENT STANDARDS

Unless specifically required in the approval criteria listed above, this proposal does not have to meet the development standards in order to be approved during this review process. The plans submitted for a building or zoning permit must demonstrate that all development standards of Title 33 can be met or have received an Adjustment or Modification via a land use review prior to the approval of a building or zoning permit.

CONCLUSIONS

Staff finds the proposal for a new concert venue on this site would not negatively impact the industrial area, and that adequate public services are available to support the proposal.

The proposed Adjustments to the loading and ecoroof requirements are consistent with the purpose of the standards to be modified, with the character of the area, and with the purpose of the IG1 zone. Impacts from the Adjustments would be mitigated to the extent practical.

With the recommended conditions of approval listed below, staff finds that each of the applicable Conditional Use Review and Adjustment Review approval criteria are met. With these conditions, staff recommends approval of the proposal.

TENTATIVE STAFF RECOMMENDATION

(May be revised upon receipt of new information at any time prior to the Hearings Officer decision)

Approval of Conditional Use Review to establish a Major Event Entertainment use on this site; and

Approval of two Adjustments:

- To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c).

- To reduce the amount of ecoroof area required from 14,617 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 2,100 square feet (Zoning Code Section 33.510.243.B.1).

The approvals are per the approved plans, Exhibit C-1 through C-4, and subject to the following conditions of approval:

A. As part of the building permit application submittal, each of the required site plans and any additional drawings must reflect the information and design approved by this land use review as indicated in Exhibits C-1 through C-4. The sheets on which this information appears must be labeled, "Proposal and design as approved in Case File # LU 23-111784 CU AD."

B. Prior to issuance of a building permit for this development, the applicant must receive 30 precent public works concept approval and make any required bond payment for required frontage improvements abutting the site.

C. Prior to issuance of a building permit for this development, the applicant must obtain approval of an annual Angle Loading Permit for the proposed truck loading in SE Main Street. The applicant must adhere to all the conditions and stipulations of said permit for the life of the proposed use. If any conditions are found to be in violation, the applicant may be fined and/or said Angle Loading Permit may be revoked.

D. Prior to issuance of a building permit for this development, the applicant must provide a letter for the record that Prosper Portland, the owner of the property to the south (R673495), acknowledges and accepts the limitations placed upon the site with the proposed truck loading occurring in SE Main Street adjacent to the subject property.

E. The applicant must continually implement the transportation demand management (TDM) measures identified in the TDM plan in Exhibit A-10 that are within their control.

F. The applicant must assess the bike parking capacity on an annual basis for the first 5 years after the concert venue begins operation and then every other year after that. That assessment must include bike count averages for events throughout the year. The applicant must send their assessment to PBOT Development Review and PBOT Active Transportation and Safety. If demand consistently exceeds the provided bike parking, the applicant must work with PBOT on remedies, including but not limited to adding additional bike racks or a contract for offering temporary bike racks during events.

PROCEDURAL INFORMATION

The application for this land use review was submitted on December 22, 2023, and was determined to be complete on May 23, 2024.

Zoning Code Section 33.700.080 states that land use review applications are reviewed under the regulations in effect at the time the application was submitted, provided that the application is complete at the time of submittal, or complete within 180 days. Therefore, this application was reviewed against the Zoning Code in effect on December 22, 2023.

ORS 227.178 states the City must issue a final decision on land use review applications within 120 days of the application being deemed complete. The 120-day review period may be extended at the request of the applicant. In this case, the applicant has not extended the 120-day review period. Unless extended by the applicant, the 120 days will expire on **September 20, 2024.**

Some of the information contained in this report was provided by the applicant**.** As required by Zoning Code Section 33.800.060, the burden of proof is on the applicant to show that the approval criteria are met. The Bureau of Development Services has independently reviewed the information submitted by the applicant and has included this information only where the Bureau of Development Services has determined the information satisfactorily demonstrates compliance with the applicable approval criteria. This report is the recommendation of the Bureau of Development Services with input from other City and public agencies.

Conditions of Approval. If approved, this project may be subject to specific conditions of approval, listed above. Compliance with the applicable conditions of approval must be documented in all related permit applications. Plans and drawings submitted during the permitting process must illustrate how applicable conditions of approval are met. Any project elements that are specifically required by conditions of approval must be shown on the plans and labeled as such.

These conditions of approval run with the land, unless modified by future land use reviews. As used in the conditions, the term “applicant” includes the applicant for this land use review, any person undertaking development pursuant to this land use review, the proprietor of the use or

development approved by this land use review, and the current owner and future owners of the property subject to this land use review.

This report is not a decision. The review body for this proposal is the Hearings Officer who will make the decision on this case. This report is a recommendation to the Hearings Officer by the Bureau of Development Services. The Hearings Officer may adopt, modify, or reject this recommendation. The Hearings Officer will make a decision about this proposal within 17 days of the close of the record. To comment, you may testify at the hearing, submit comments at www.portland.gov/omf/hearings/land-use; email your comments to HearingsOfficeClerks@portlandoregon.gov; write to the Land Use Hearings Officer, 1900 SW Fourth Ave., Suite 3100, Portland, OR 97201; or FAX your comments to 503-823-4347.

You will receive mailed notice of the decision if you write a letter received before the hearing or testify at the hearing, or if you are the property owner or applicant. This staff report will be posted on the Bureau of Development Services website at https://www.portland.gov/bds/zoning-land-use/public-notices. Enter the land use case file number in the keyword search.

Appeal of the decision. The decision of the Hearings Officer may be appealed to City Council, who will hold a public hearing. In the event of an appeal of the Hearings Officer's decision, only evidence previously presented to the Hearings Officer will be considered by the City Council.

You may appeal the decision only if you submit written comments which are received before the close of the record, if you testify at the hearing, or if you are the property owner or applicant. Appeals must be filed within 14 days of the decision. **An appeal fee of $6,079 will be charged.**

Neighborhood associations recognized by the Office of Community & Civic Life may qualify for a waiver of the appeal fee provided that the association has standing to appeal. The appeal must contain the signature of the chairperson or other person authorized by the association, confirming the vote to appeal was done in accordance with the organization's bylaws. Neighborhood associations who wish to qualify for a fee waiver must complete the Type III Appeal Fee Waiver Request for Organizations Form and submit it prior to the appeal deadline. The Type III Appeal Fee Waiver Request for Organizations Form contains instructions on how to apply for a fee waiver, including the required vote to appeal.

Assistance in filing the appeal and information on fee waivers are available from the Bureau of Development Services website: https://www.portland.gov/bds/zoning-land-use/land-use-review-fees-and-types/appeals-fees-and-fee-waivers.

Recording the final decision. If this land use review is approved the final decision will be recorded with the County Recorder. *Unless appealed,* the final decision will be recorded by the Bureau of Development Services.

Expiration of this approval. Generally, land use approvals (except Comprehensive Plan and Zoning Map Amendments) expire five years from the date of the final decision unless a permit has been issued for the approved development. See Zoning Code Section 33.730.130 for specific expiration rules.

Applying for permits. A building permit, occupancy permit, or development permit may be required before carrying out an approved project. At the time they apply for a permit, permittees must demonstrate compliance with:

- All conditions imposed herein;
- All applicable development standards, unless specifically exempted as part of this land use review;
- All requirements of the building code; and

- All provisions of the Municipal Code of the City of Portland, and all other applicable ordinances, provisions and regulations of the City.

Planner's Name: Andrew Gulizia
Date: June 27, 2024

EXHIBITS (not attached unless indicated)

A. Applicant's Statement:

Original submittal
1. Original narrative
2. Original plan set
3. Context images
4. Original stormwater report
5. Original transportation study

May 23, 2024 submittal
6. Letter in response to incompleteness determination letter
7. Revised narrative
8. Revised plan set
9. Revised stormwater report
10. Revised transportation study

June 24, 2024 submittal
11. Operations and maintenance plan for stormwater planters and ecoroofs

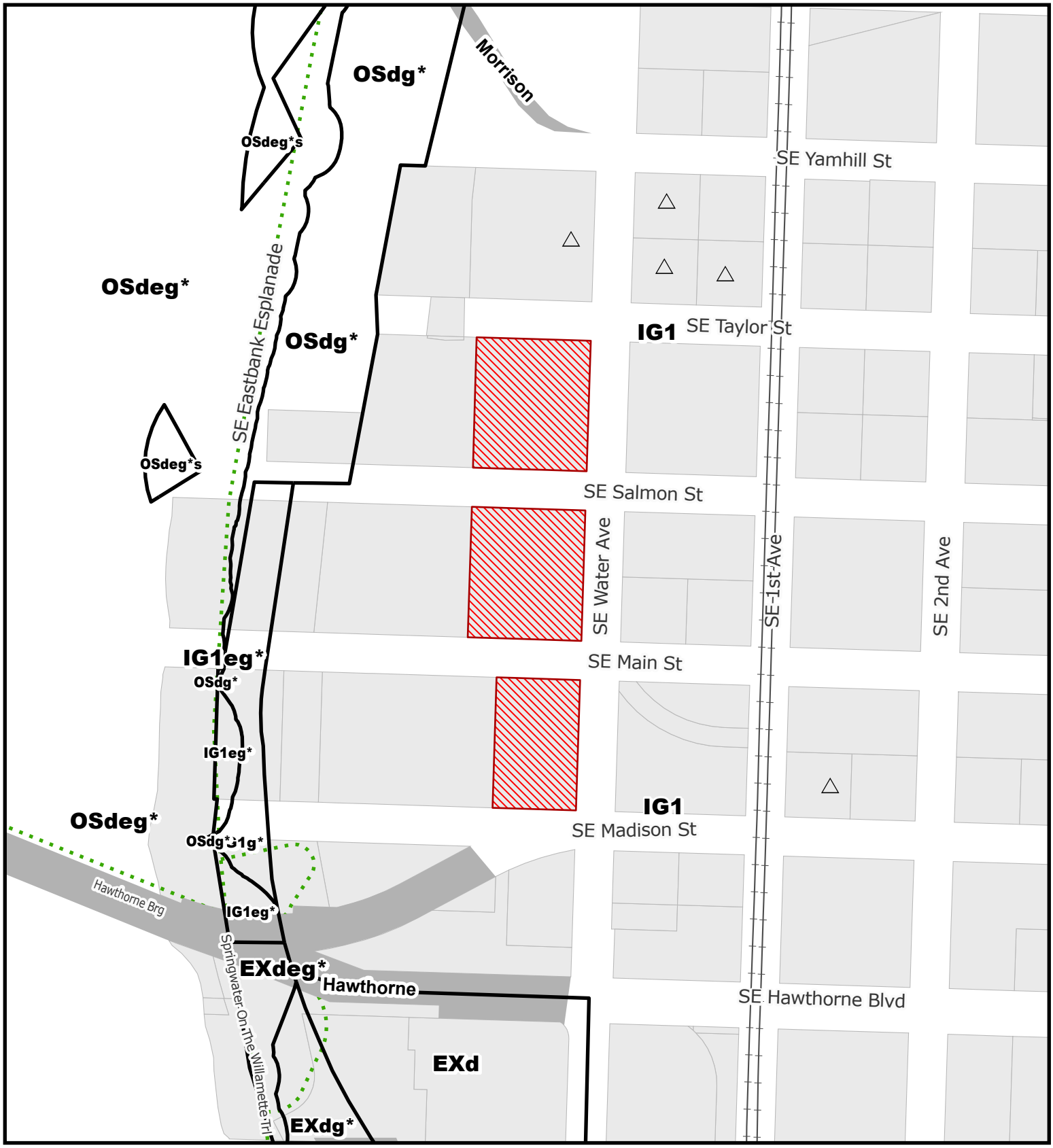
June 26, 2024 submittal
12. Final revised narrative

B. Zoning Map (attached)
C. Plans & Drawings:
   1. Site plan (attached)
   2. East and south building elevations (attached)
   3. West and north building elevations (attached)
   4. Photo simulation (attached)
D. Notification information:
   1. Request for Response
   2. Sign posting instructions
   3. Applicant's statement certifying posting
   4. Notice of Public Hearing, mailed June 20, 2024
   5 Mailing list for Notice of Public Hearing
E. Agency Responses:
   1. Bureau of Environmental Services
   2. Portland Bureau of Transportation
   3. Water Bureau
   4. Fire Bureau
   5. Police Bureau
   6. Site Development Review Section of BDS
   7. Life Safety Review Section of BDS
   8. Parks and Recreation - Urban Forestry Division
F. Correspondence (none received)
G. Other:

1. Land use review application
2. Incompleteness determination letter, dated January 12, 2024
3. Applicant email withdrawing bike parking Adjustment request, received June 25, 2024

H. Hearing Exhibits:

The Bureau of Development Services is committed to providing equal access to information and hearings. To request an accommodation or alternative format of communication, please contact us at least five business days prior to the hearing at 503-823-7300 (TTY 503-823-6868).



For Zoning Code in Effect Post October 1, 2022

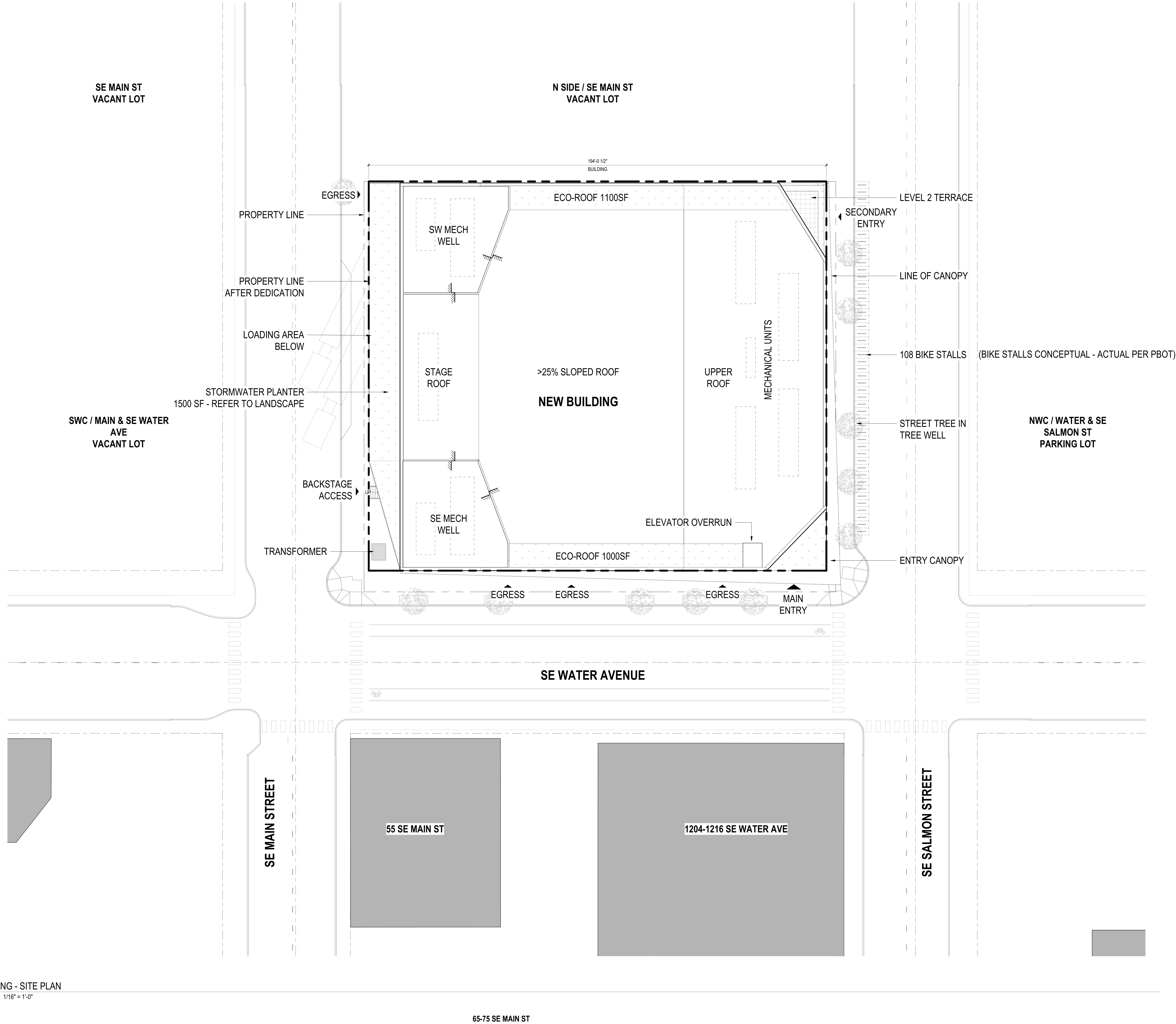
ZONING

THIS SITE LIES WITHIN THE:
CENTRAL CITY PLAN DISTRICT
CENTRAL EASTSIDE SUBDISTRICT

Site
Historic Landmark
Recreational Trails

File No. LU 23 - 111784 CU AD
1/4 Section 3130
Scale 1 inch =200 feet
State ID 1S1E03AD 3602
Exhibit B Jan 16, 2024

Portland Hearings Office
Case #LU 23-111784 CU AD
Bureau Case #LU 23-111784 CU AD
Exhibit #5
Page 23 of 27



1
Z090
ZONING - SITE PLAN
SCALE: 1/16" = 1'-0"

SITE DATA TABLE

SITE AREA:
34,860 SF

SITE AREA AFTER DEDICATION:
32,040 SF

BUILDING COVERAGE:
31,600 SF

TOTAL BUILDING AREA:
98,500 SF

VENUE CAPACITY:
APPROX 3,800 OCCUPANTS

CENTRAL EASTSIDE VENUE

NWC/MAIN & SE WATER AVE
PORTLAND, OR 97214

ARCHITECT

LEVER

4713 N. Albina Avenue,
4th Floor Portland, OR 97217
T. 503.928.6040
www.leverarchitecture.com

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REVISIONS

BIKE PARKING TOTALS

(TABLE 266-6 MAJOR EVENT ENTERTAINMENT)

LONG TERM BIKE PARKING:
REQUIRED: 10 PROVIDED:10

SHORT TERM BIKE PARKING:
3800 OCCS / 40
REQUIRED: 95 PROVIDED: 108

PHASE
SCHEMATIC DESIGN

DATE
DECEMBER 21, 2023

PROJECT NUMBER
271

SCALE
As indicated

N

SHEET TITLE
ZONING - SITE PLAN

Z090

5/23/2024 2:09:08 PM
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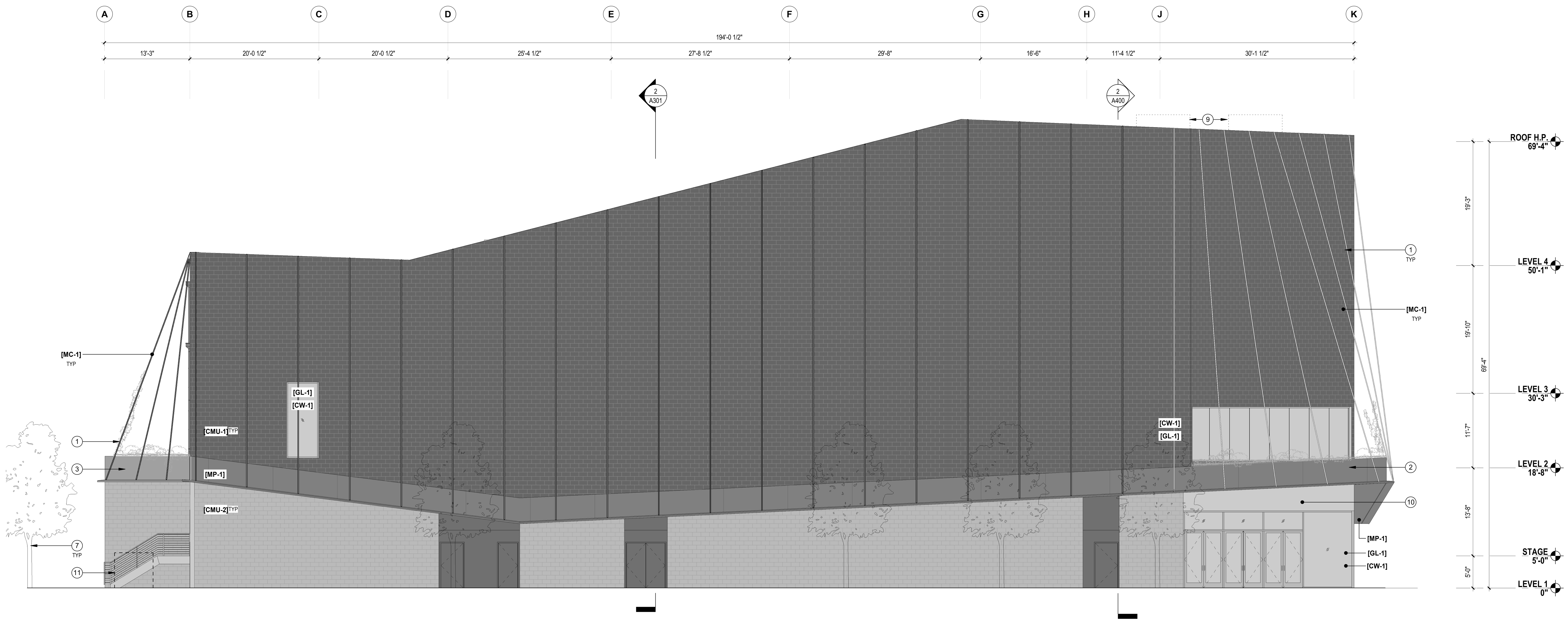

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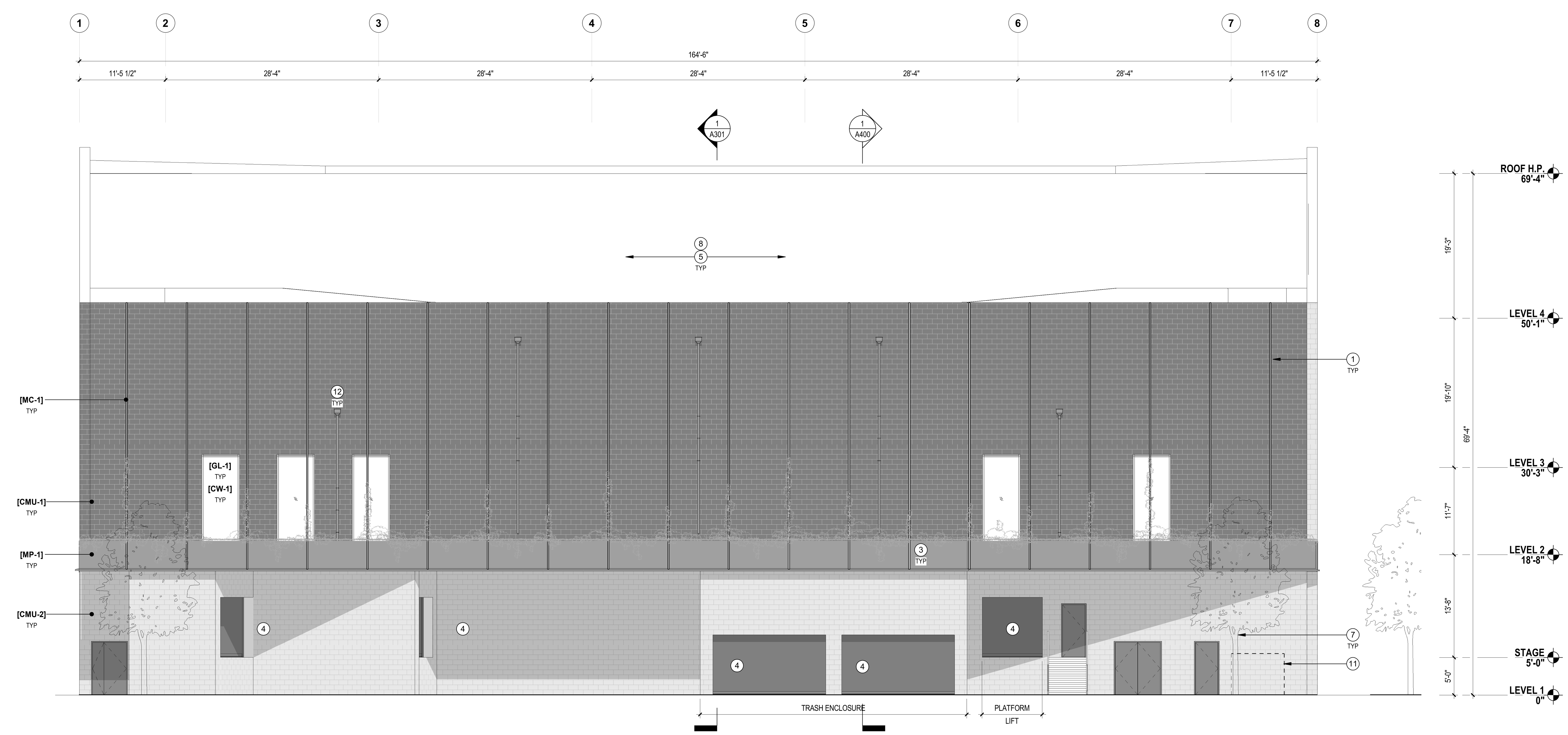
Z201
ZONING - EAST BUILDING ELEVATION
SCALE: 1/8" = 1'-0"



2
Z201
ZONING - SOUTH BUILDING ELEVATION
SCALE: 1/8" = 1'-0"

3/9/2024 1:15:52 PM
Autodesk Docs://Central Eastside Venue (CEV)/Arch_CEV_271_R23.rvt

ELEVATION KEYNOTES

1 NON-STRUCTURAL STEEL CLIMBING VINE TRELLIS.
2 CLIMBING VINE PLANTER/ CANOPY. REFER TO WALL SECTION FOR DETAILS.
3 STORMWATER PLANTER.
4 OVERHEAD ROLL-UP DOOR.
5 >25% SLOPED ROOF BEYOND.
6 EXISTING CURB EXTENSION
7 STREET TREE IN TREE WELL.
8 ROOFING MEMBRANE COMPLIANT WITH COOL ROOF REQUIREMENTS.
9 MECHANICAL UNIT BEYOND
10 LED DISPLAY
11 TRANSFORMER
12 SCUPPER & DOWNSPOUT

FINISH + MAT'L LEGEND

[CONC-1]	CAST-IN-PLACE CONCRETE
[CMU-1]	CONCRETE MANSONRY UNIT BOD: MUTUAL MAT'LS GROUND FACE 8-8-16 STANDARD IN SABLE
[CMU-2]	CONCRETE MANSONRY UNIT - FLUTED FACE WITH CLEAR FINISH BOD: MUTUAL MAT'LS 8-8-16 7-SCORE BOND BEAM SPLIT FACE
[CW-1]	ALUMINUM CURTAIN WALL
[CP-1]	PRECAST CONCRETE PAVER
[DP-1]	BITUMINOUS DAMPPROOFING
[GL-1]	1" INSULATED GLAZING UNIT
[GR-1]	EXTERIOR 42" GUARDRAIL BOD: STEEL PIPE + CARL STAHL X-TEND CABLE MESH
[GR-2]	BALCONY 42" GUARDRAIL BOD: REFER TO OWNER STANDARD
[HR-1]	HANDRAIL
[INSUL-1]	BATT INSULATION
[INSUL-2]	MINERAL WOOL INSULATION
[INSUL-3]	POLYISOCYANURATE INSULATION
[INSUL-4]	EXPANDED POLYSTYRENE INSULATION
[INSUL-5]	EXTRUDED POLYSTYRENE INSULATION
[INSUL-6]	CLOSED CELL SPRAY FOAM INSULATION
[MC-1]	STEEL TRELLIS SYSTEM BOD: CARL STAHL GREEN CABLE HEAVY
[MP-1]	COMPOSITE METAL PANEL
[MF-1]	SHEET METAL FLASHING
[MR-1]	MIRROR
[P-1]	PAINT - COLOR 1
[RF-1]	60 MIL SINGLE-PLY PVC ROOF
[RF-2]	2-PLY SBS ROOF ASSEMBLY
[SAM-1]	ASPHALTIC FLASHING MEMBRANE
[SAM-2]	BUTYL FLASHING MEMBRANE
[SAM-3]	HIGH-TEMP FLASHING MEMBRANE
[WOM-1]	RECESSED WALK-OFF MAT
[WP-1]	BELOW GRADE WATERPROOFING - BENTONITE
[WP-2]	BELOW GRADE WATERPROOFING - SHEET MEMBRANE
[WR-1]	WATER-REPELLANT COATING
[WR-2]	WATER-REPELLANT + GRAFFITI COATING
[VPR-1]	INTERIOR VAPOR RETARDER
[VPR-2]	ROOF VAPOR RETARDER
[VPR-3]	UNDER-SLAB VAPOR RETARDER

STEEL TRELLIS TOTALS

QTY:65
VARIED LENGTHS
LONGEST: 60' - 0" SHORTEST: 36' - 6"

CENTRAL EASTSIDE VENUE

NWC/MAIN & SE WATER AVE
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PHASE
SCHEMATIC DESIGN

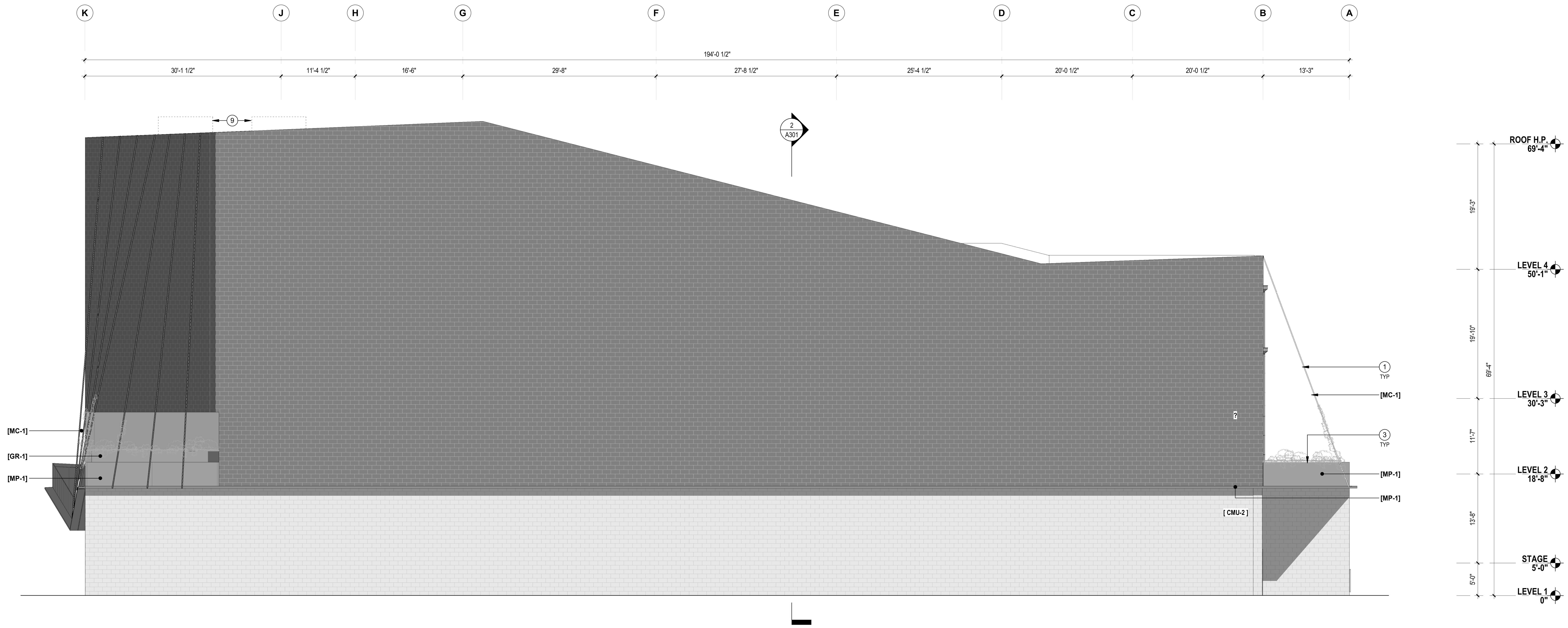
DATE
DECEMBER 21, 2023

PROJECT NUMBER
271

SCALE
As indicated

SHEET TITLE
EXTERIOR BUILDING ELEVATIONS - SOUTH & EAST

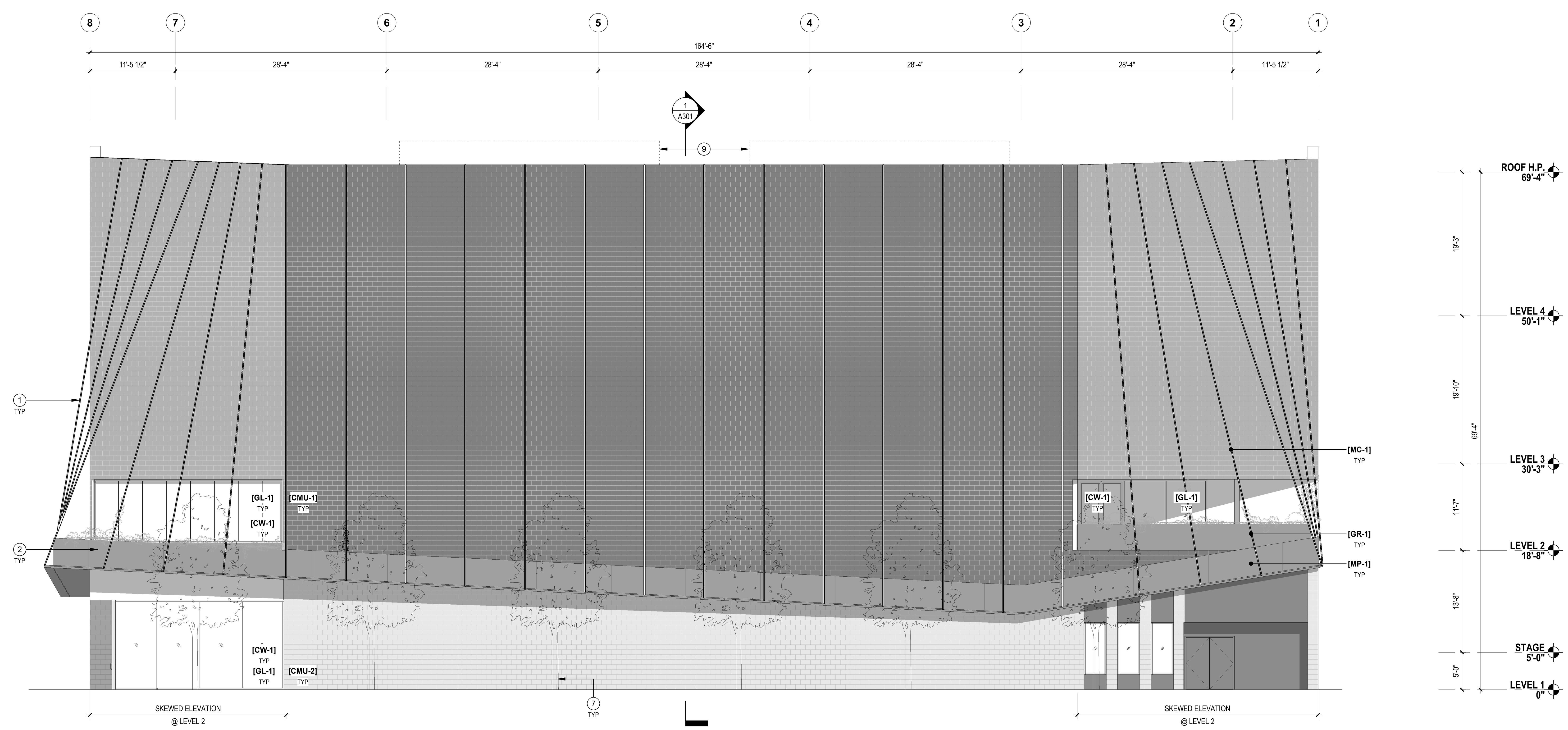
Z201



2
Z202

ZONING - WEST BUILDING ELEVATION

SCALE: 1/8" = 1'-0"



1
Z202

ZONING - NORTH BUILDING ELEVATION

SCALE: 1/8" = 1'-0"

3/9/2024 1:16:40 PM
Autodesk Docs://Central Eastside Venue (CEV)/Arch_CEV_271_R23.rvt

ELEVATION KEYNOTES

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2. CLIMBING VINE PLANTER/ CANOPY. REFER TO WALL SECTION FOR DETAILS.
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6. EXISTING CURB EXTENSION
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FINISH + MAT'L LEGEND

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DATE
DECEMBER 21, 2023

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SCALE
As indicated

SHEET TITLE
EXTERIOR BUILDING ELEVATIONS - NORTH & WEST

Z202


tonight: incididunt ut labore et dolor
tonight: incididunt ut labore et dolor

City of Portland, Oregon
Bureau of Development Services
Land Use Services
FROM CONCEPT TO CONSTRUCTION

Carmen Rubio, Commissioner
David Kuhnhausen, Interim Director
Phone: (503) 823-7300
TTY: 711
www.portland.gov/bds

Memorandum

Date: **July 5, 2024**

To: **Hearings Officer**

From: **Andy Gulizia, City Planner, Land Use Services, BDS**

Re: **LU 23-111784 CU AD (Hearings Office Case # 4240010)**

After the staff report was published on June 27, 2024, the applicant requested the Portland Bureau of Transportation (PBOT) consider changes to the conditions of approval PBOT had recommended for the staff report. Conditions of approval B through F from the June 27, 2024 staff report had been recommended by PBOT in Exhibit E-2:

A. *As part of the building permit application submittal, each of the required site plans and any additional drawings must reflect the information and design approved by this land use review as indicated in Exhibits C-1 through C-4. The sheets on which this information appears must be labeled, "Proposal and design as approved in Case File # LU 23-111784 CU AD."*

B. *Prior to issuance of a building permit for this development, the applicant must receive 30 percent public works concept approval and make any required bond payment for required frontage improvements abutting the site.*

C. *Prior to issuance of a building permit for this development, the applicant must obtain approval of an annual Angle Loading Permit for the proposed truck loading in SE Main Street. The applicant must adhere to all the conditions and stipulations of said permit for the life of the proposed use. If any conditions are found to be in violation, the applicant may be fined and/or said Angle Loading Permit may be revoked.*

D. *Prior to issuance of a building permit for this development, the applicant must provide a letter for the record that Prosper Portland, the owner of the property to the south (R673495), acknowledges and accepts the limitations placed upon the site with the proposed truck loading occurring in SE Main Street adjacent to the subject property.*

E. *The applicant must continually implement the transportation demand management (TDM) measures identified in the TDM plan in Exhibit A-10 that are within their control.*

F. *The applicant must assess the bike parking capacity on an annual basis for the first 5 years after the concert venue begins operation and then every other year after that. That assessment must include bike count averages for events throughout the year. The applicant must send their assessment to PBOT Development Review and PBOT Active Transportation and Safety. If demand consistently exceeds the provided bike parking, the applicant must work with PBOT on remedies, including but not limited to adding additional bike racks or a contract for offering temporary bike racks during events.*

After considering the applicant's request for changes, PBOT agreed to modify their recommended conditions of approval as follows:

- Update the language in condition C to reflect the fact that there is more than one type of permit that PBOT may use to review a request for truck loading in the SE Main Street right-of-way.

- Delete condition D because a letter from Prosper Portland that satisfies the intent of this condition is already in the record (Exhibit A-10, page 301).

- Update the language in condition F to reduce the requirement for annual reporting from the first 5 years to the first 3 years, and to end the requirement for every other year reporting after year 11. PBOT found that annual reporting for the first 3 years would be sufficient, and that an end date to the semi-annual reporting requirement was warranted.

Based on PBOT's revised recommendations, staff recommends the conditions of approval on pages 18 and 19 of the staff report be replaced with the following conditions of approval:

A. As part of the building permit application submittal, each of the required site plans and any additional drawings must reflect the information and design approved by this land use review as indicated in Exhibits C-1 through C-4. The sheets on which this information appears must be labeled, "Proposal and design as approved in Case File # LU 23-111784 CU AD."

B. Prior to issuance of a building permit for this development, the applicant must receive 30 percent public works concept approval and make any required bond payment for required frontage improvements abutting the site.

C. Prior to issuance of a building permit for this development, the applicant must obtain approval of the appropriate permit as determined by PBOT for the proposed truck loading in SE Main Street. The applicant must adhere to all the conditions and stipulations of said permit for the life of the proposed use. If any conditions are found to be in violation, the applicant may be fined and/or any applicable permits may be revoked.

D. The applicant must continually implement the transportation demand management (TDM) measures identified in the TDM plan in Exhibit A-10 that are within their control.

E. The applicant must assess the bike parking capacity on an annual basis for the first 3 years after the concert venue begins operation and then every other year after that ending with year 11. That assessment must include bike count averages for events throughout the year. The applicant must send their assessment to PBOT Development Review and PBOT Active Transportation and Safety. If demand consistently exceeds the provided bike parking, the applicant must work with PBOT on remedies, including but not limited to adding additional bike racks or a contract for offering temporary bike racks during events.

To Hearings Officer

I am writing this letter on behalf of Bunk Bar to address Bunk's support as a neighbor of the proposed venue project (Case File: LU 23-111784 CU AD). Currently our neighborhood is basically empty after 5pm and we feel that this new venue and the nighttime activity and traffic it would bring would be transformative to the Central Eastside Industrial District, especially on SE Water Ave. In the fourteen years we've been in business in this area we've seen lower foot traffic and greater safety concerns. We've reduced our hours and have seen lower sales. Two neighboring restaurants and bars have closed within the past year due to lack of nighttime activity and traffic in the area. The venue site slated for development has been blighted, underused and is often unsafe. Nighttime activity is this area would benefit small businesses like Bunk Bar, improving safety and increasing traffic at a time when the district is quiet. As a result, we would increase our hours and hire more employees. Consistent with the staff report, we agree that this project is complementary to the surrounding area, meets the relevant land use standards and we urge you to approve this proposal.

Thanks,
Nick Wood
Owner/Operator
Bunk Bar
1028 SE Water Ave #130
Portland, OR 97214

Land Use Hearing Letter Case File: LU 23-111784 CU AD Written Testimony

Boke Bowl <patrick@bokebowl.com>

Mon 7/8/2024 12:44 PM

To:Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>;Gulizia, Andrew <Andrew.Gulizia@portlandoregon.gov>

1 attachments (47 KB)

Land Use Letter.pdf;

Hello,
My name is Patrick Fleming Chef/Owner Boke Bowl restaurant in Central Eastside. Please see attached written testimony for the Land Use Hearing to take place 7/10.
Thank you for your consideration.
Patrick

--
--

Patrick Fleming

Boke Bowl
One Bowl at a Time

bokebowl.com
@bokebowl

Patrick Fleming
Boke Bowl Restaurant
1028 SE Water Ave
97214

RE: Case File: LU 23-111784 CU AD

Dear Hearing's Officer,

Hello, my name is Patrick Fleming. I'm the Chef and Owner of Boke Bowl restaurant residing at 1028 SE Water Ave in the heart of Central Eastside District (CEID). I am writing to encourage you to seriously consider supporting the land use application (**LU 23-111784 CU AD**) put forth by Beam Development and Colas Development Group in conjunction with Prosper Portland.

Boke Bowl has been a large part of the CEID community having been in business for 13 years at this location. We have experienced the highs and lows of this great city, and I can't imagine a better use for this land than this proposal before you nor a better developer than Beam Development.

Due to the non-housing zoning as well as a lack of active nighttime business in this section of the CEID our location has always been a destination location for consumers. Thus, nighttime business has always been a struggle on a financial and safety level. For years, the development site has been misused by vagrant populations and encampments at great costs to the city and local businesses. Activating this property for this type of development would be a game changer financially for every business in the CEID as well as Portland as a whole. Moreover, greatly activating CEID in the evening hours would help with the vandalism, break-ins and would continue to build on the strong foundation of community that presently exists amongst the businesses as well as the future businesses that will open. Without existing nighttime activity the SE Water Ave area can handle a large influx of people in the evening hours. A great example is the quarterly Portland Night Market which brings in 3000-5000 people on weekend evenings without issue.

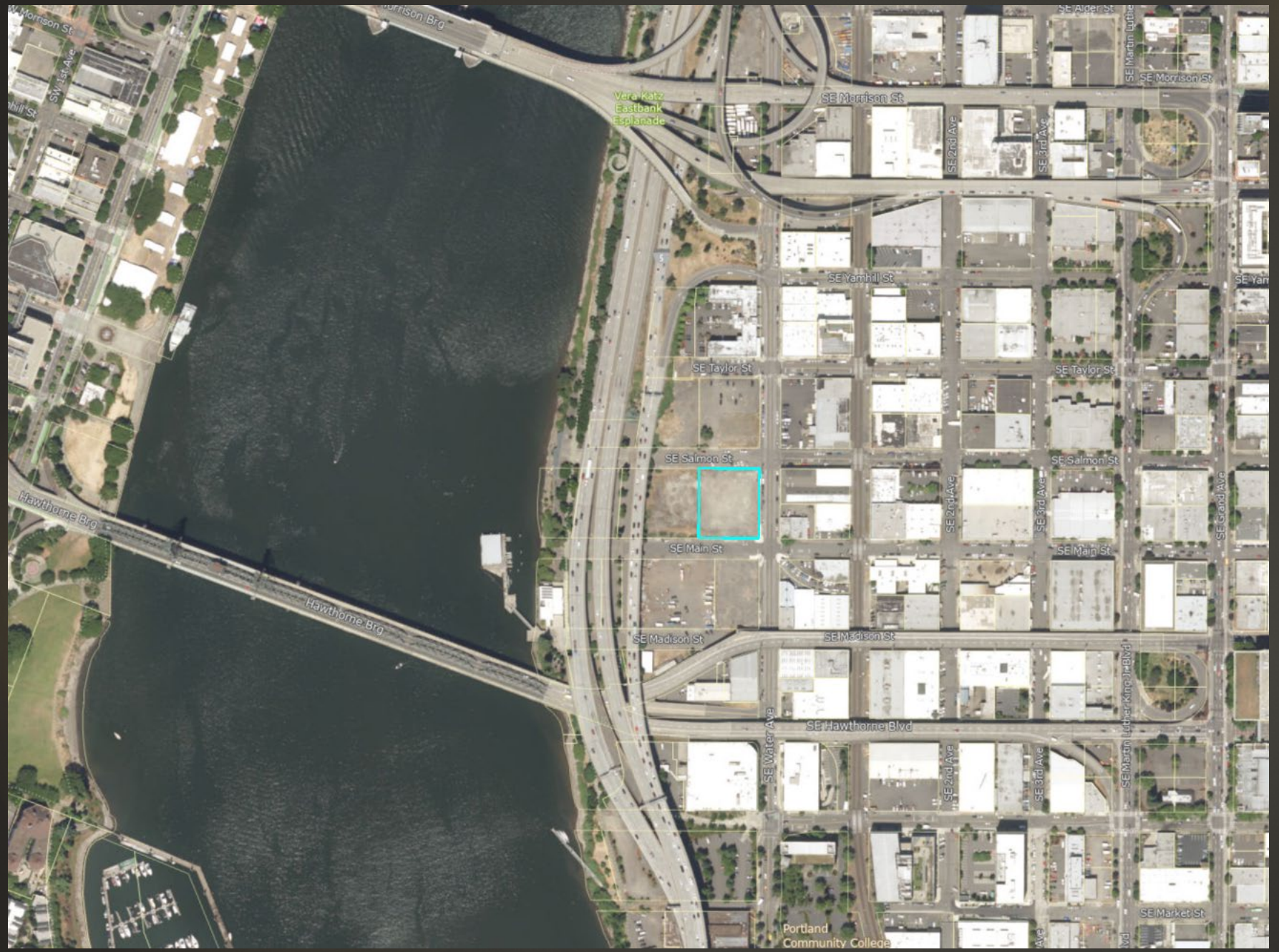
Over the past 13 years I have been involved in developing many restaurant related projects and have worked with a plethora of landlords. With every new venture, I have consulted with Beam development team because they have worked tirelessly and professionally within all departments within the city and state level. Beam Development truly cares about their tenants on a personal and professional level continually trying to champion the CEID and all of Portland. They would be the ideal developers for such a project given their past decades of dedication, integrity and holistic approach to development and continued management. Plus, they are located next store and will continually be involved in shepherding this project for many years.

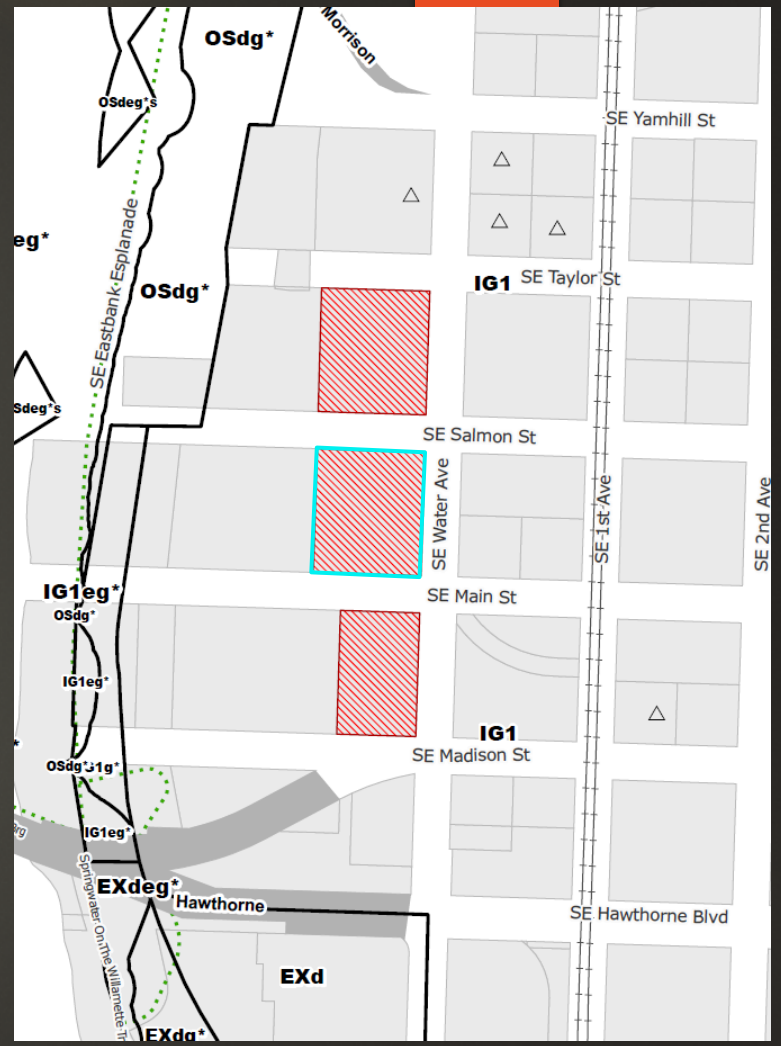
This is a fantastic location and the perfect use of this land- walking distance from downtown, short walk from mass transit on MLK and projects like this one would have a huge impact on tourism. Consumers love the feel of Industrial districts in cities and a venue such as this one would further strengthen the CEID and improve Portland's bruised reputation on a national level. It would be a great nighttime complement to the daytime attributes OMSI brings and have a tertiary effect on many businesses throughout Portland.

LU 23-111784 CU AD Conditional Use Review and Adjustment Review

STAFF PRESENTATION TO HEARINGS OFFICER

JULY 10, 2024


Vera Katz Eastbank Esplanade
SE Morrison St
SE Yamhill St
SE Taylor St
SE Salmon St
SE Main St
SE Madison St
SE Hawthorne Blvd
SE Market St
SE 2nd Ave
SE 3rd Ave
SE Water Ave
SE Martin Luther King Jr Blvd
Hawthorne Brg
Portland Community College


OSdg*
OSdeg*S
SE Eastbank Esplanade
IG1
SE Taylor St
SE Yamhill St
SE Salmon St
SE Water Ave
SE 1st Ave
SE 2nd Ave
IG1eg*
SE Main St
IG1
SE Madison St
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Hawthorne
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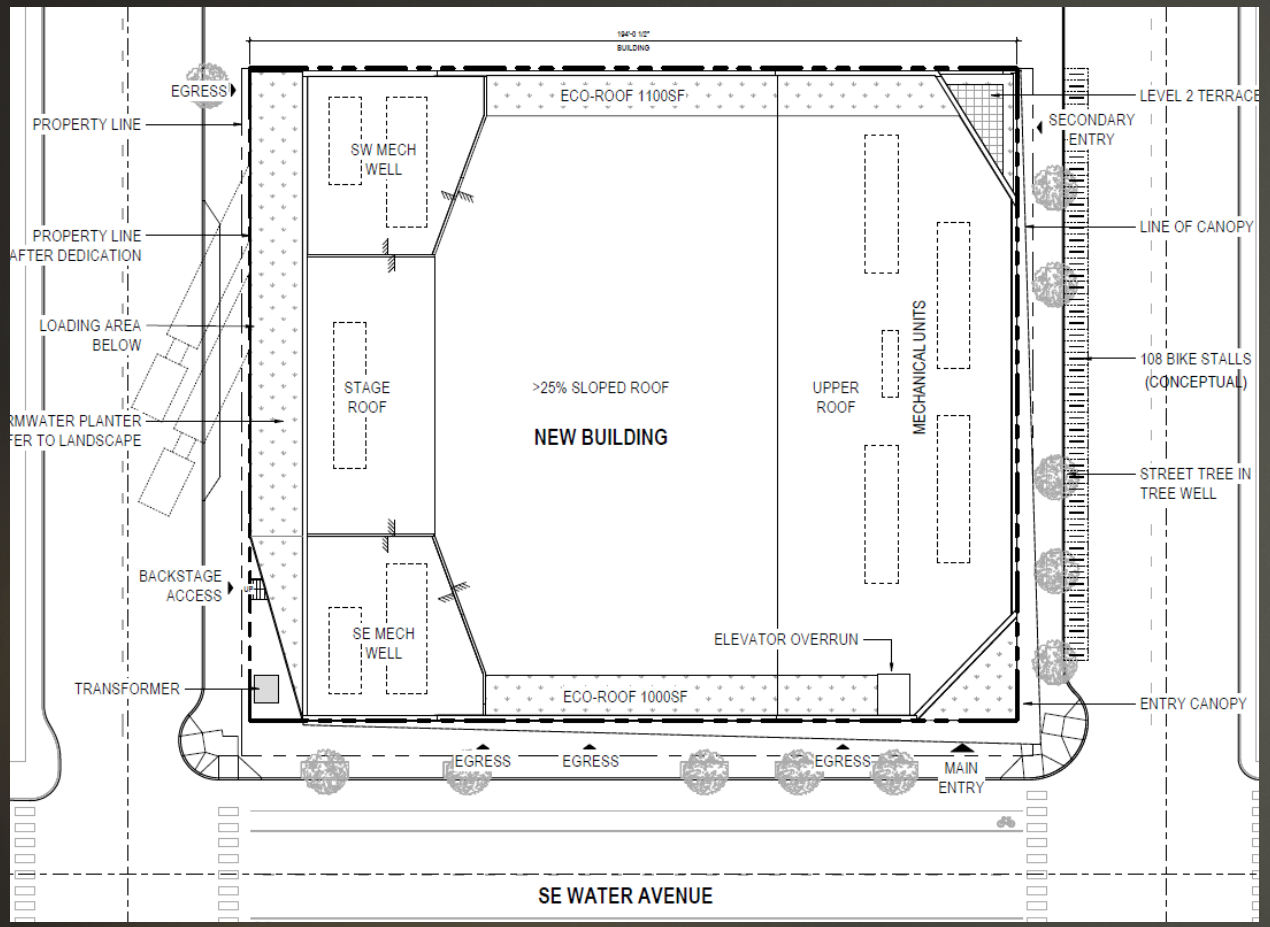
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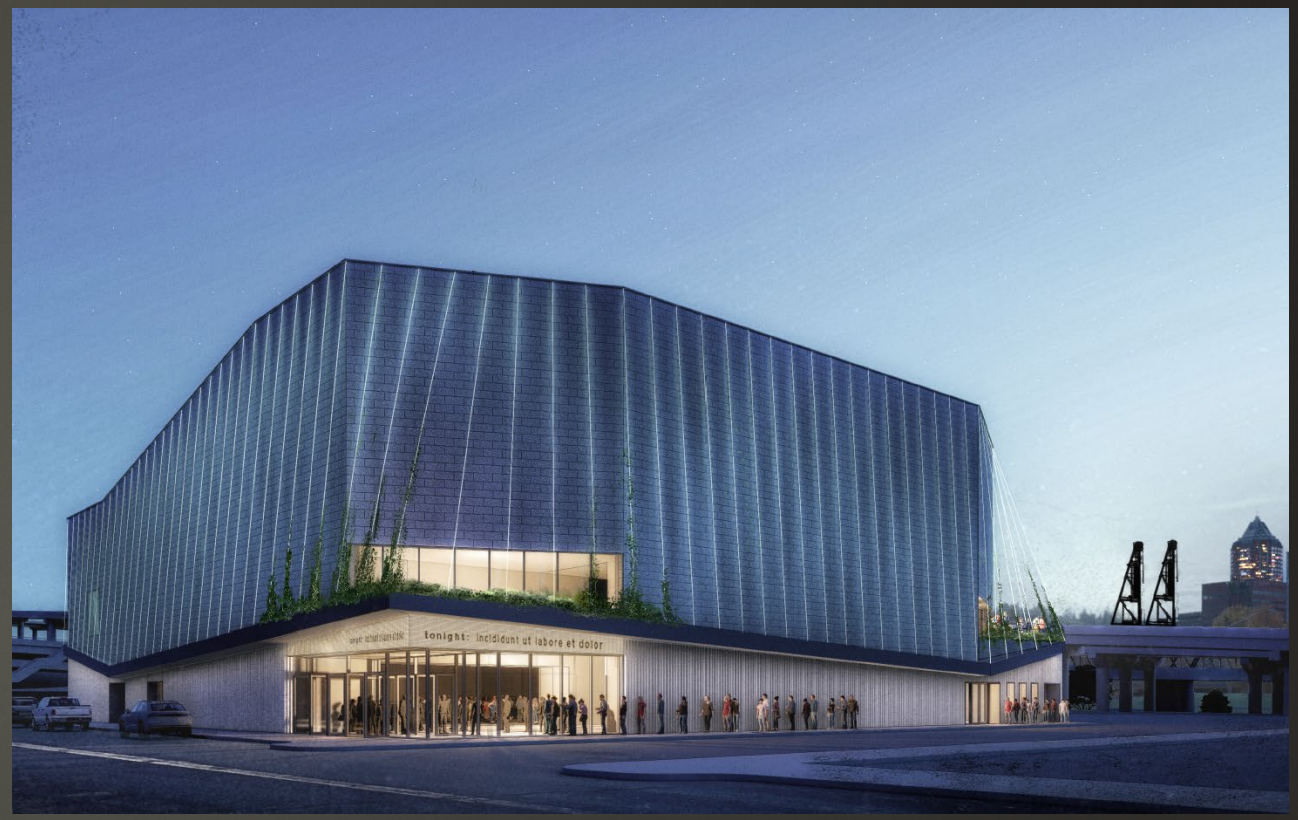
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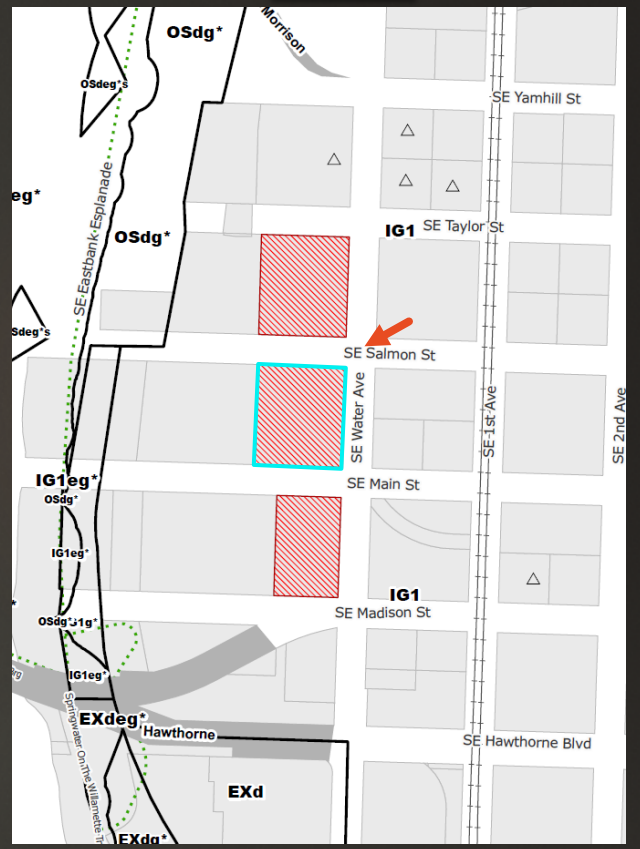
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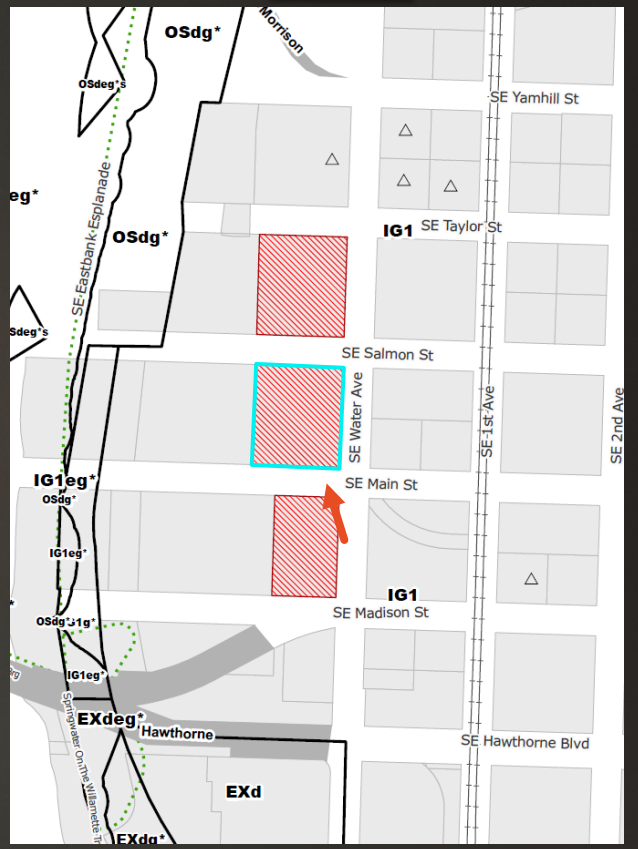
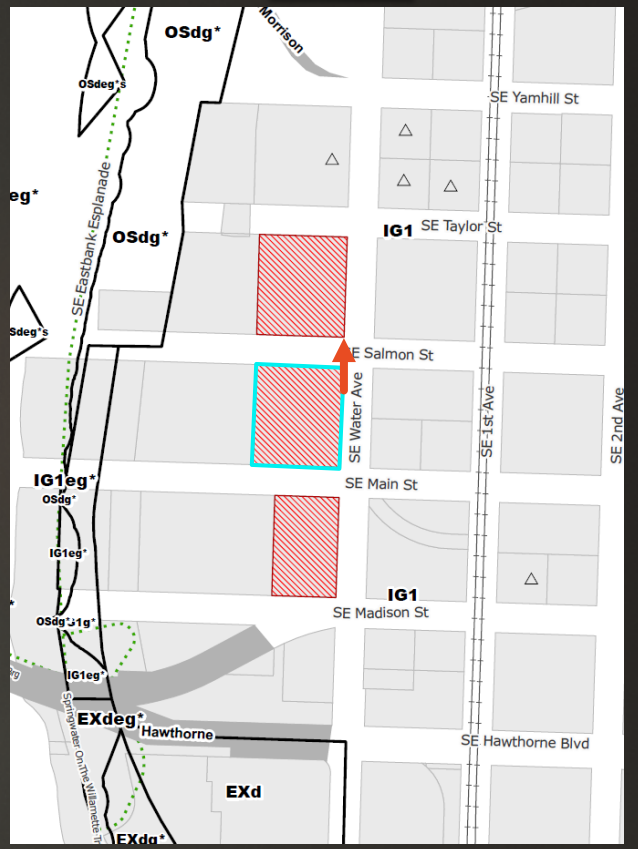


Portland Hearings Office
Case #4240010
Bureau Case #LU 23-111784 CU AD
Exhibit #9
Page 5 of 24



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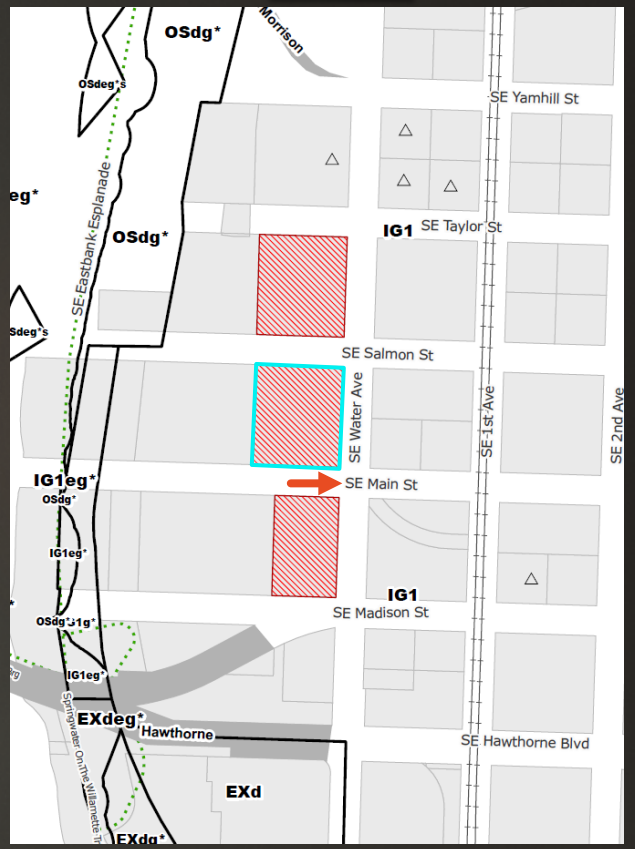
Page 6 of 24



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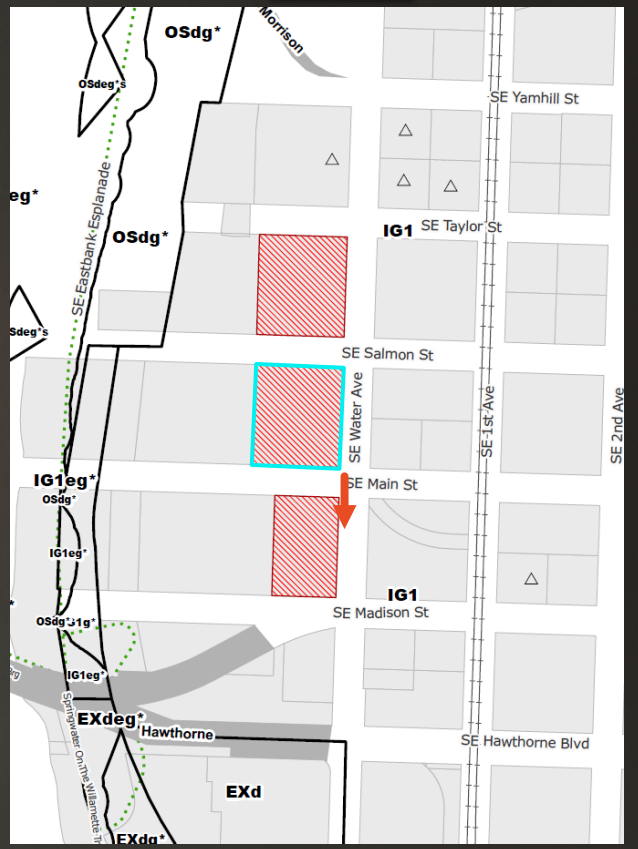
Page 7 of 24



Portland Hearings Office
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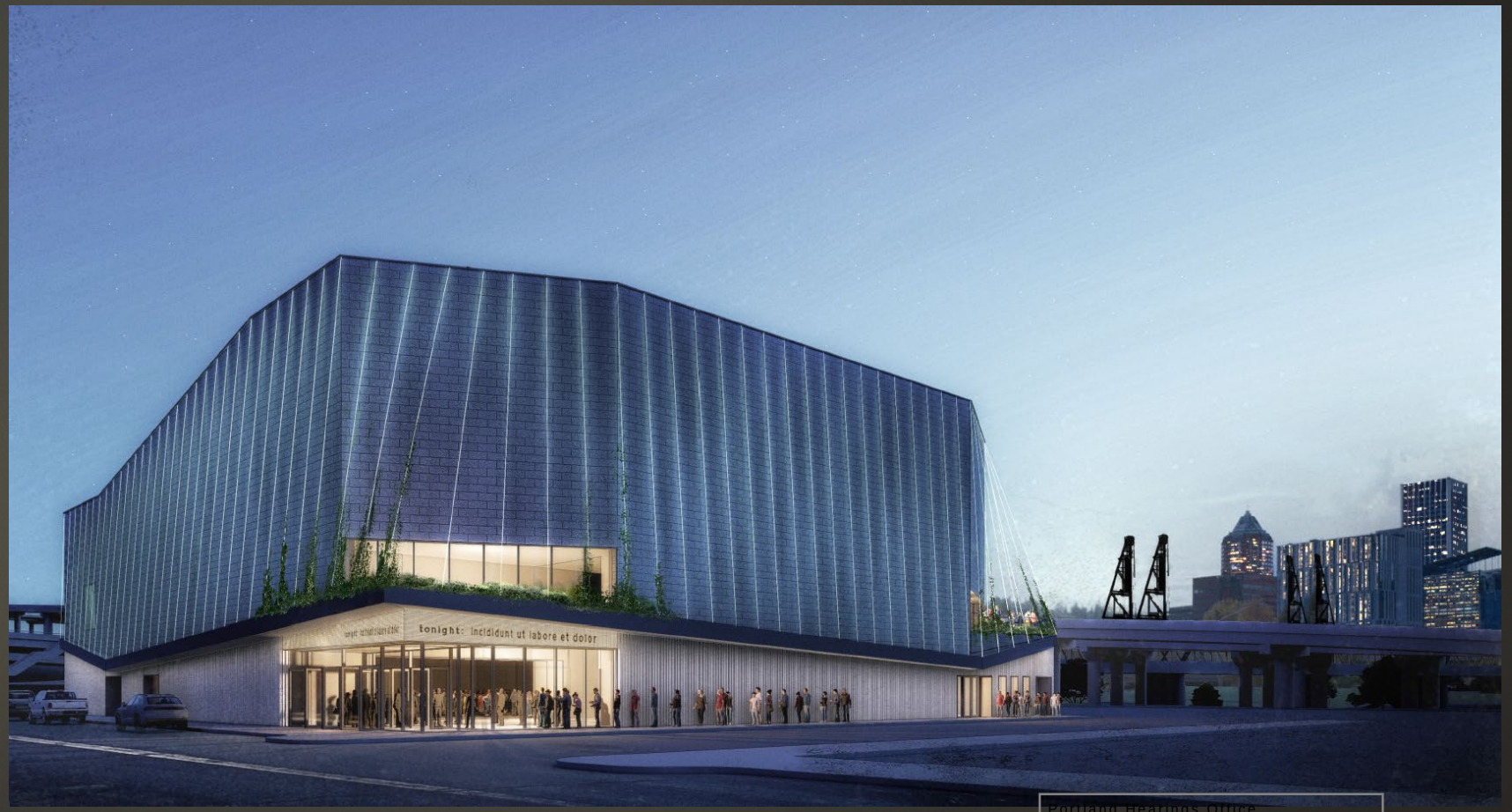
Exhibit #9
Page 8 of 24

Conditional Use Approval Criteria 33.815.215

A. Public services

B. Appearance

C. Public benefit



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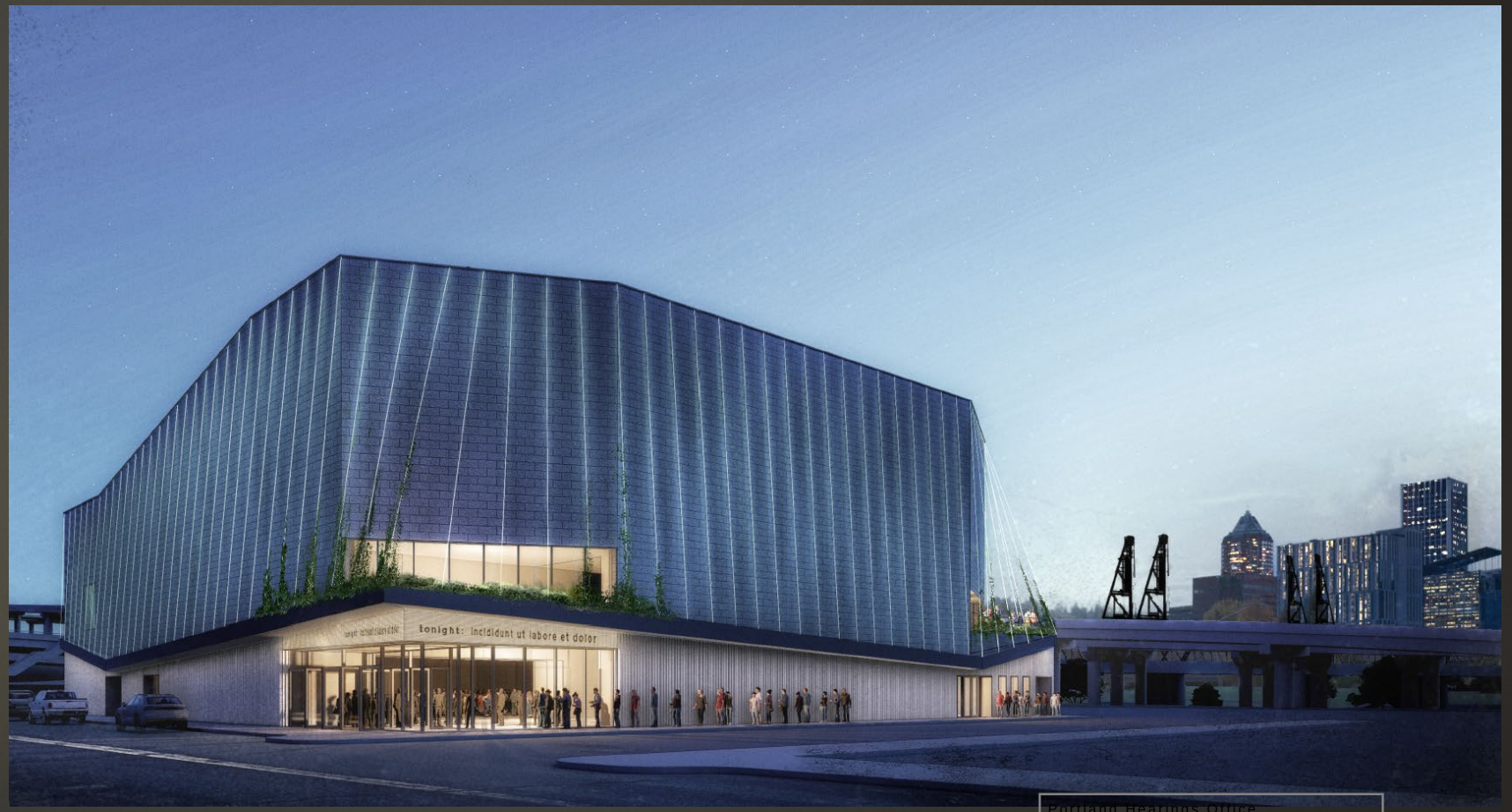

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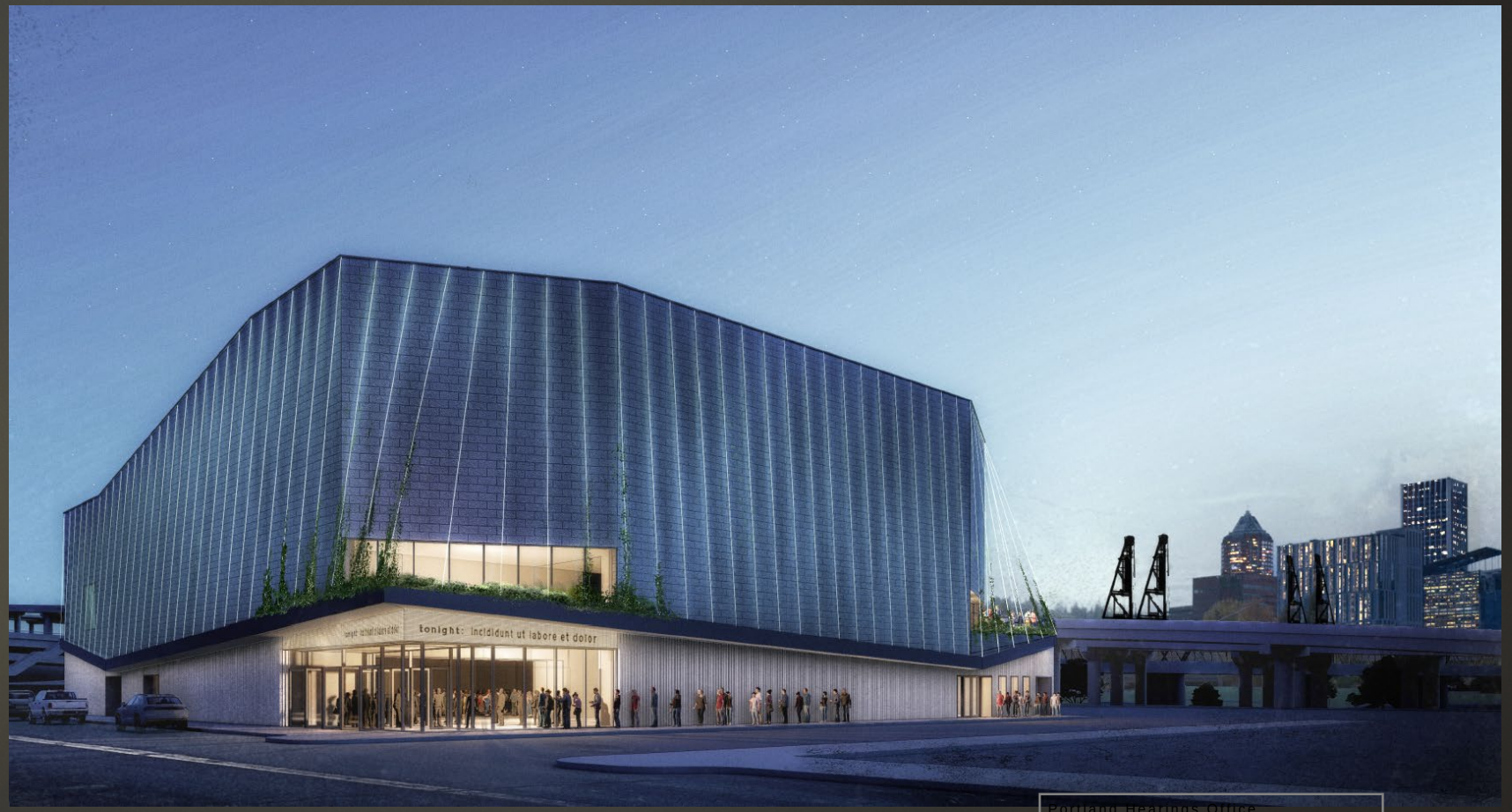

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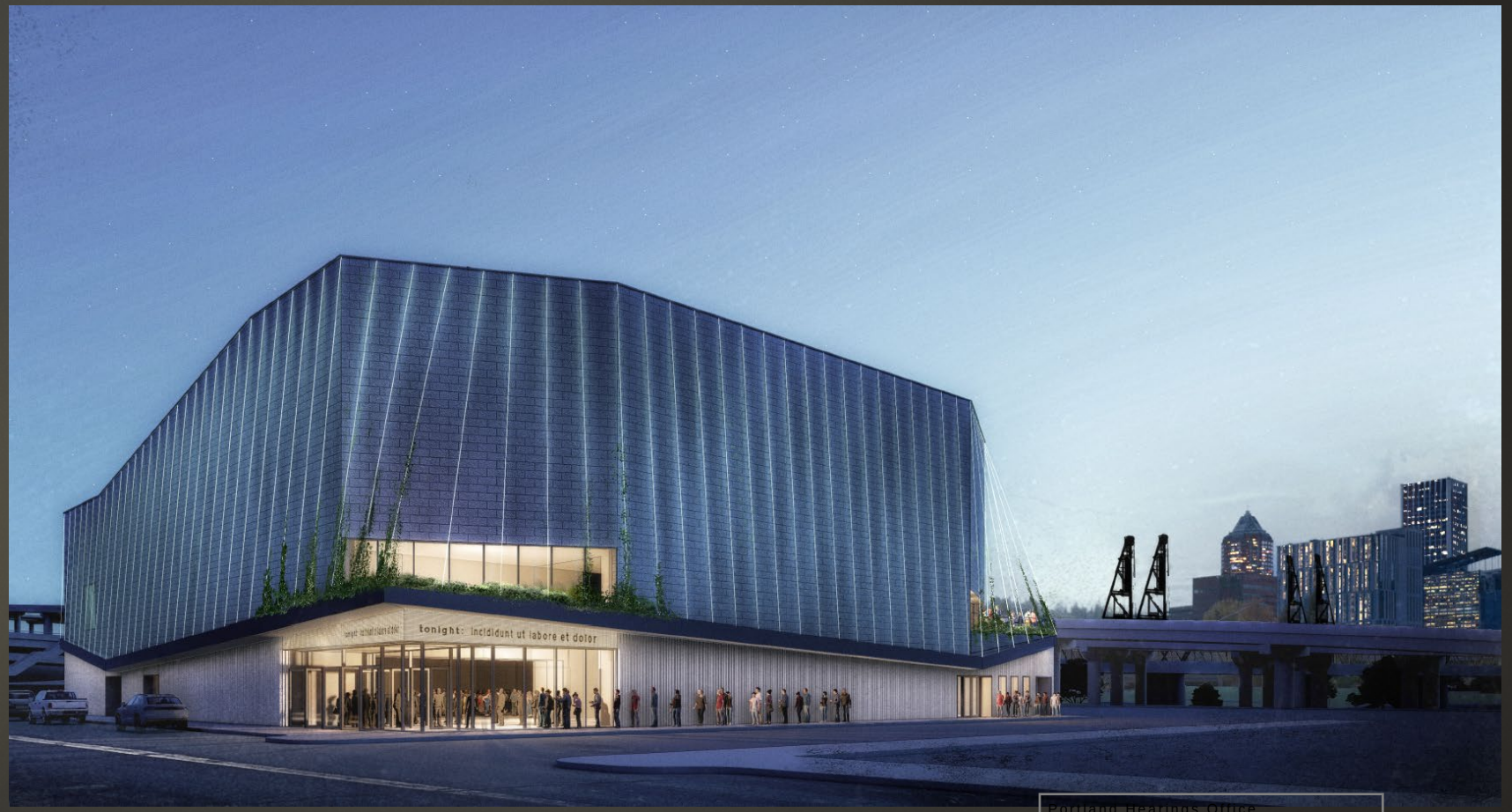
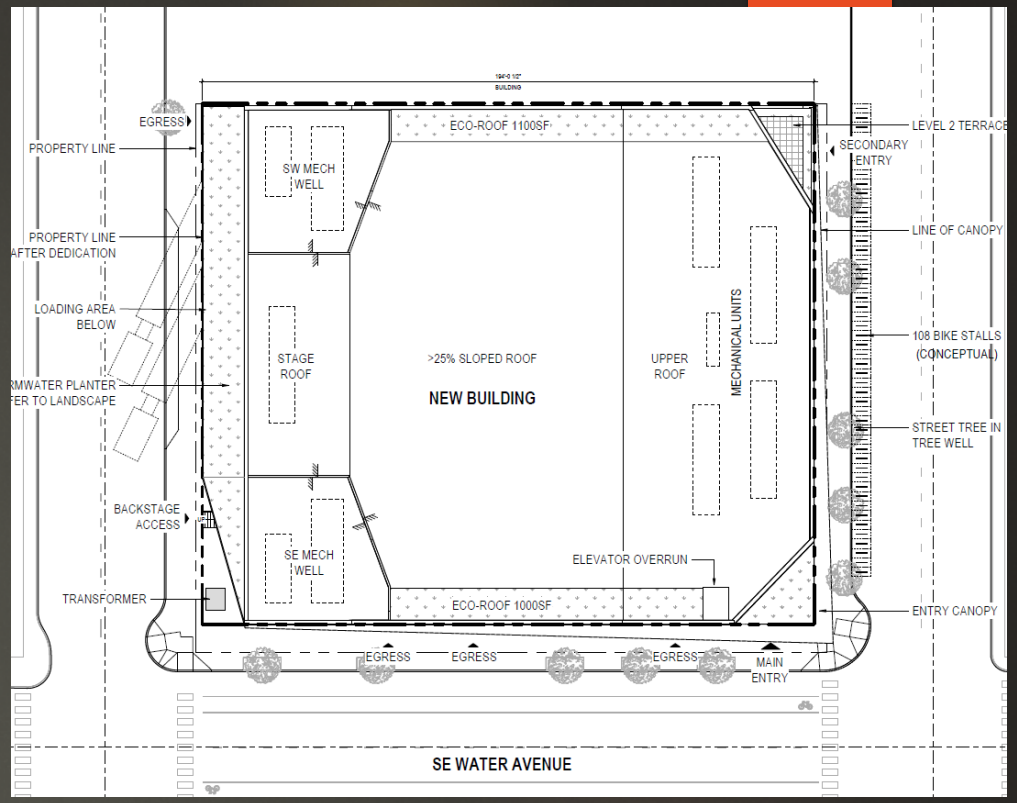


Adjustment request 1:
Waive the requirement for two truck loading spaces within the site

Approval criteria (33.805.040):

- Consistent with purpose of standard
- Consistent with street classifications and desired character
- Consistent with purpose of IG1 zone
- Impacts mitigated to the extent practical



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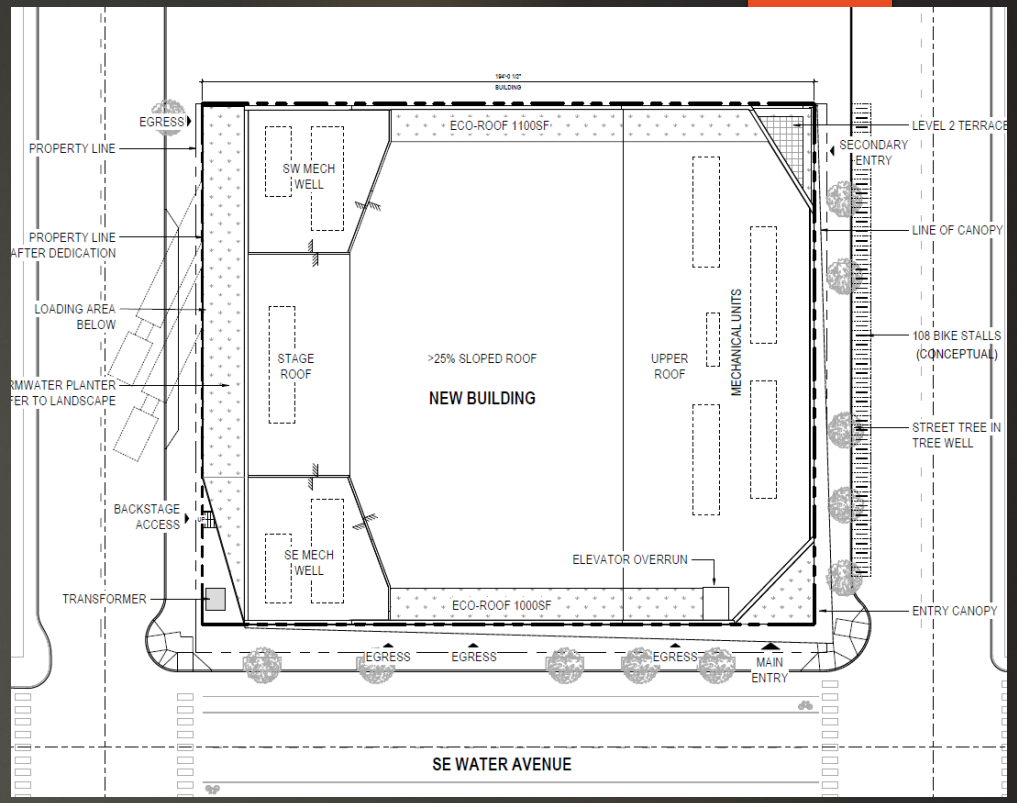

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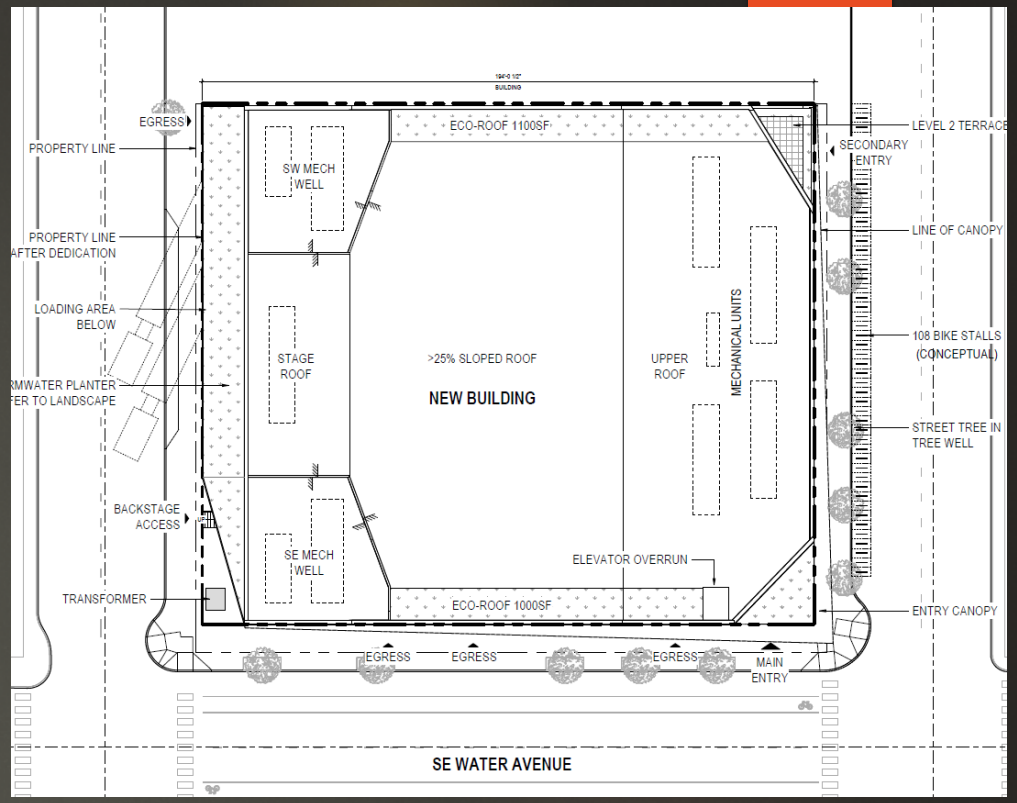

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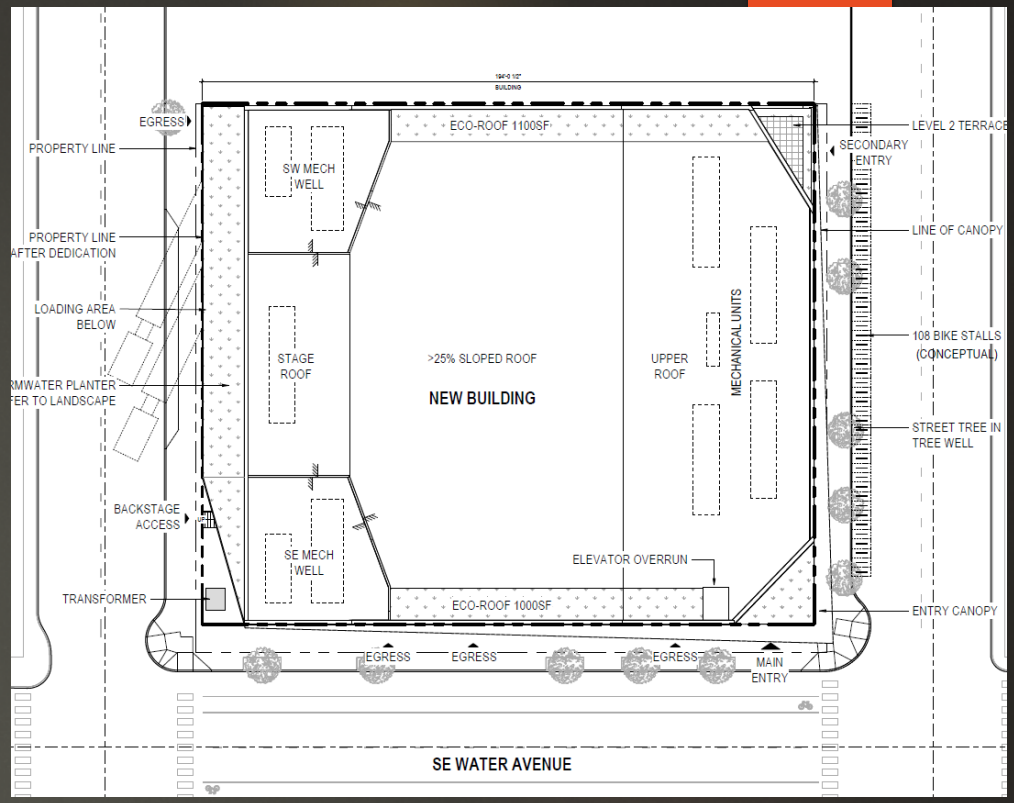

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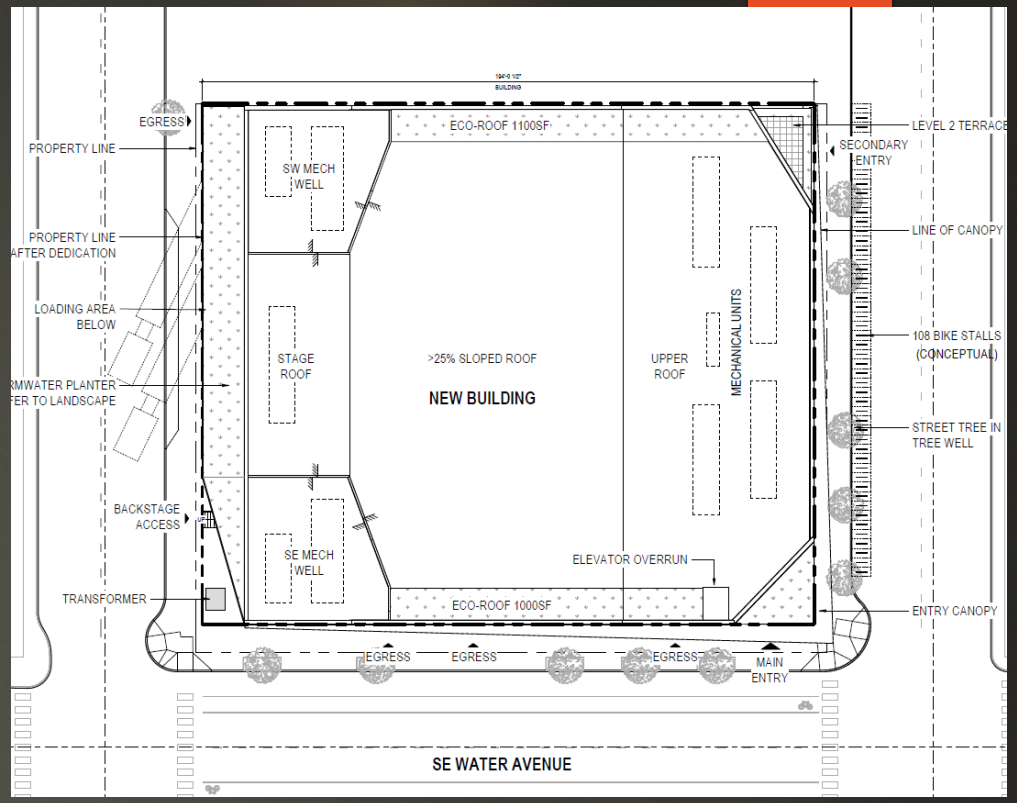

Adjustment request 2:
Reduce required ecoroof area from 14,617 square feet to 2,100 square feet

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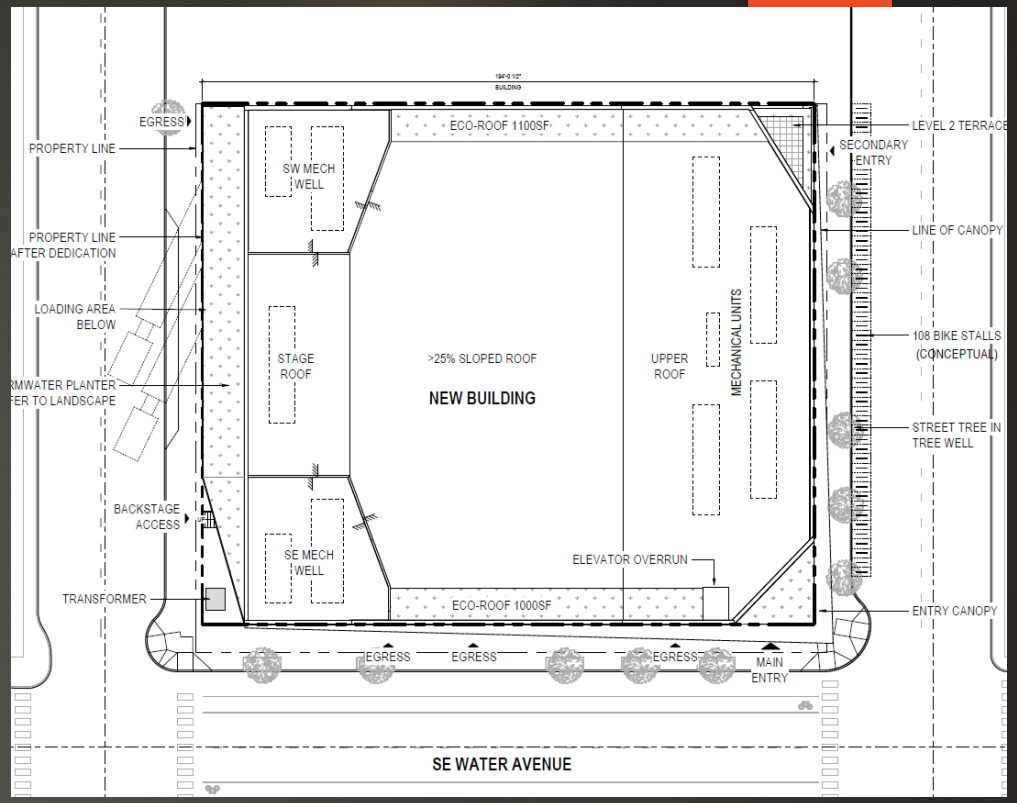

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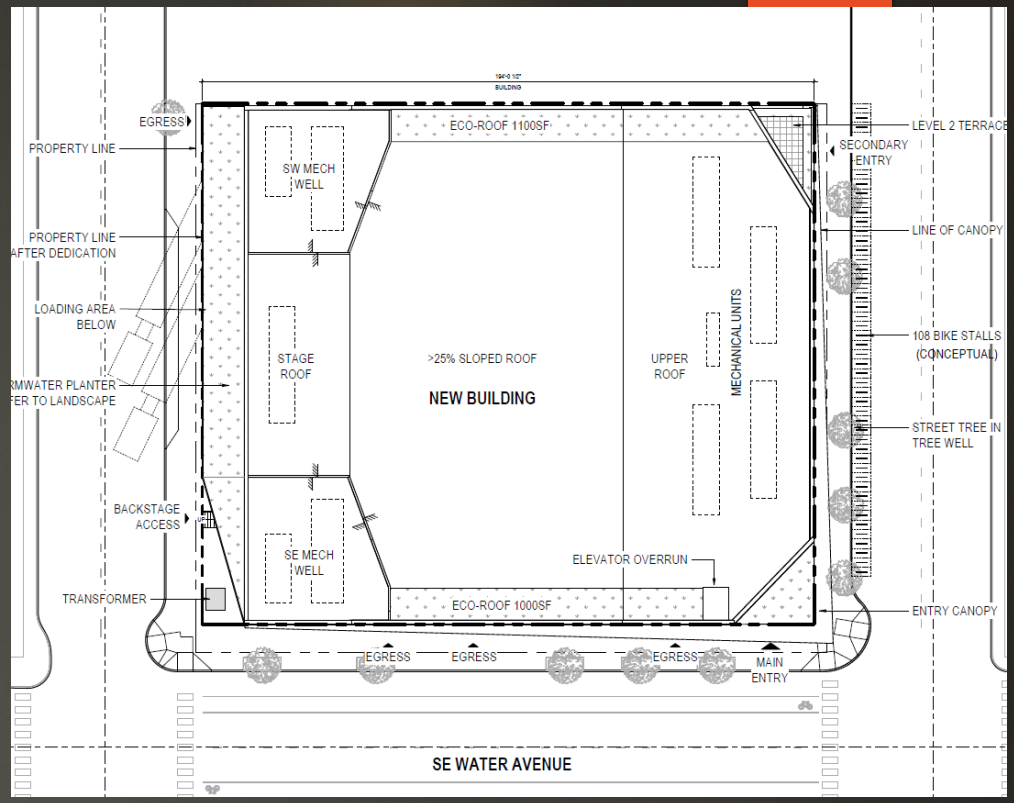

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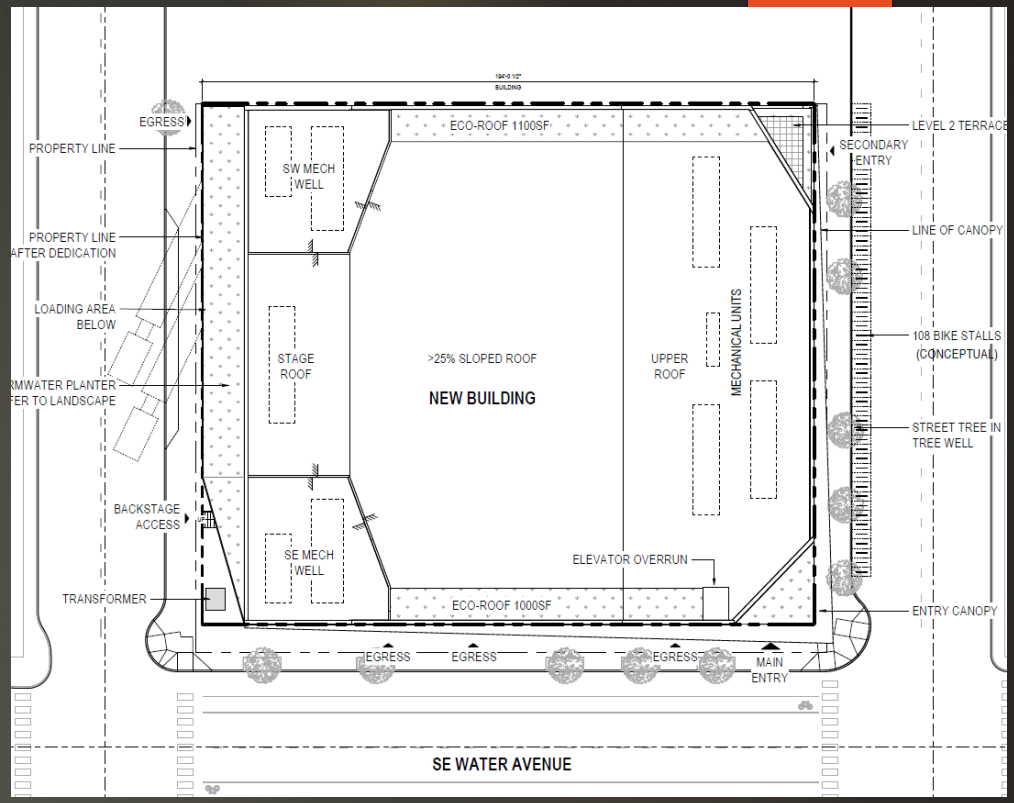

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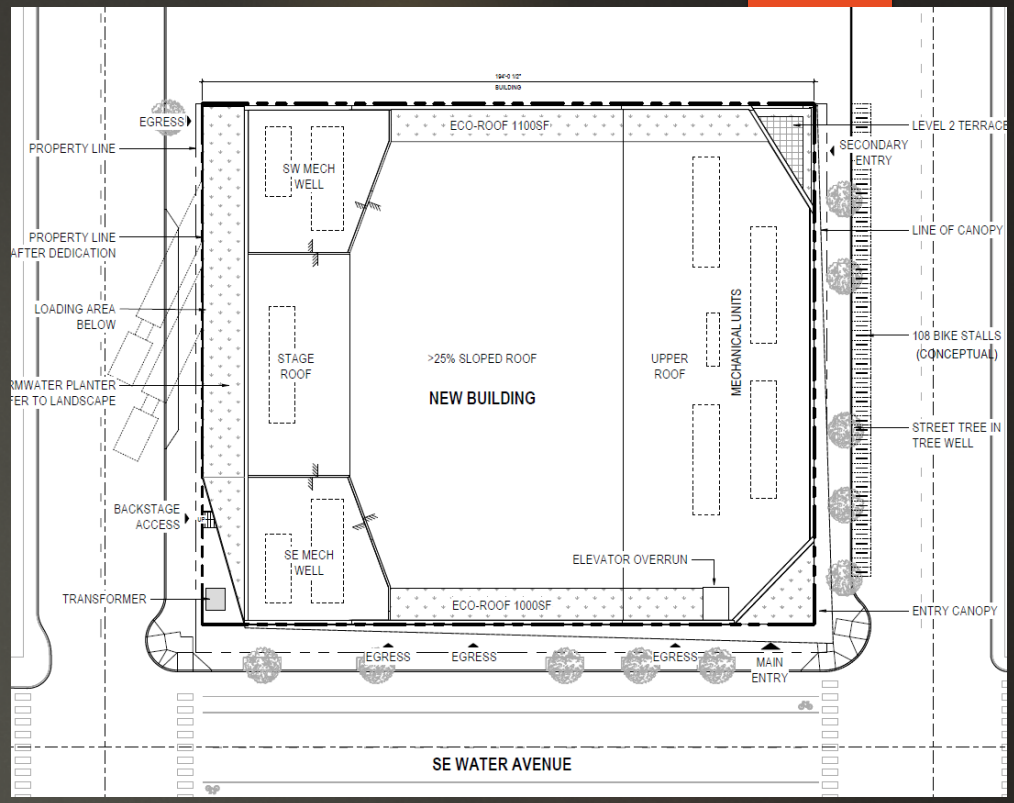

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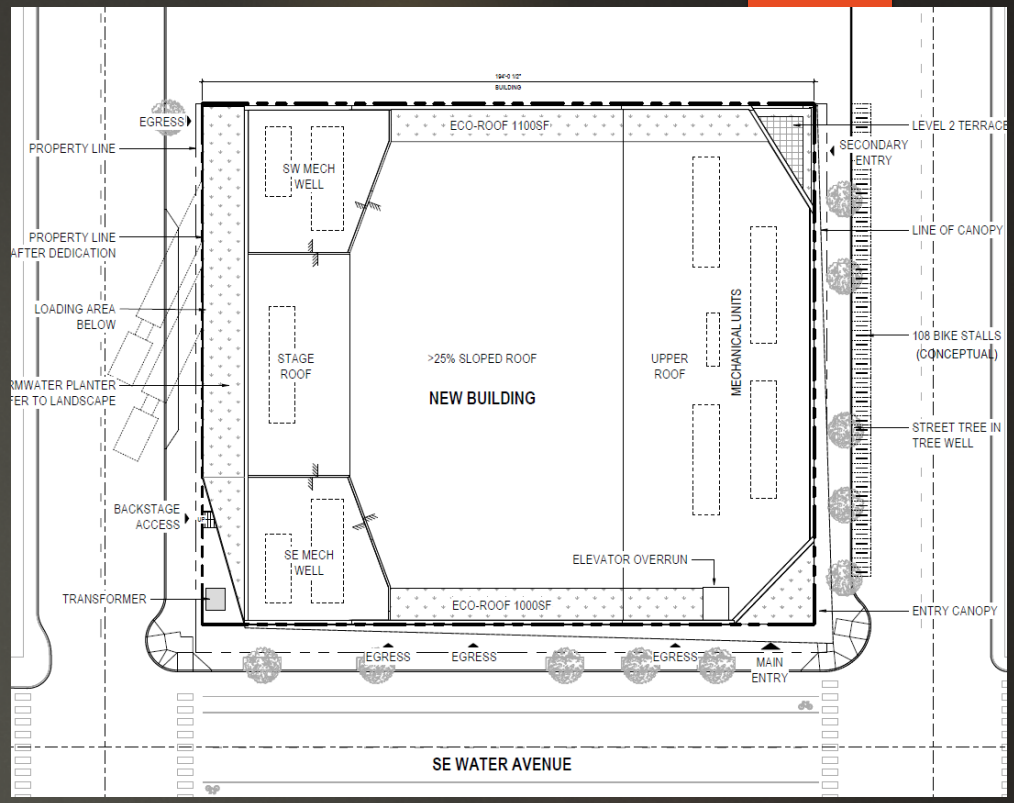

STAFF RECOMMENDATION:

Approval of:

- Conditional Use Review to establish a Major Event Entertainment use
- Adjustment to waive the requirement for two truck loading spaces within the site
- Adjustment to reduce the required ecoroof area from 14,617 square feet to 2,100 square feet

RECOMMENDED CONDITIONS OF APPROVAL:

A. As part of the building permit application submittal, each of the required site plans and any additional drawings must reflect the information and design approved by this land use review as indicated in Exhibits C-1 through C-4. The sheets on which this information appears must be labeled, "Proposal and design as approved in Case File # LU 23-111784 CU AD."

B. Prior to issuance of a building permit for this development, the applicant must receive 30 percent public works concept approval and make any required bond payment for required frontage improvements abutting the site.

C. Prior to issuance of a building permit for this development, the applicant must obtain approval of the appropriate permit as determined by PBOT for the proposed truck loading in SE Main Street. The applicant must adhere to all the conditions and stipulations of said permit for the life of the proposed use. If any conditions are found to be in violation, the applicant may be fined and/or any applicable permits may be revoked.

D. The applicant must continually implement the transportation demand management (TDM) measures identified in the TDM plan in Exhibit A-10 that are within their control.

E. The applicant must assess the bike parking capacity on an annual basis for the first 3 years after the concert venue begins operation and then every other year after that ending with year 11. That assessment must include bike count averages for events throughout the year. The applicant must send their assessment to PBOT Development Review and PBOT Active Transportation and Safety. If demand consistently exceeds the provided bike parking, the applicant must work with PBOT on remedies, including but not limited to adding additional bike racks or a contract for offering temporary bike racks during events.

TRAVEL PORTLAND

100 S.W. MAIN ST., STE. 1100 | PORTLAND, OR 97204 | 503-275-9750 | TRAVELPORTLAND.COM

July 9, 2024

Re: LU 23-111784 CU AD

(Pre-Application Conference #22-128857 PC)

Hearing Date: July 10th, 2024

Dear Land Use Hearings Officer,

As President and CEO of Travel Portland, I am writing to express my support for the proposed project to construct a new Major Event Entertainment venue in the central city. I believe the public benefits of such a proposed use in this case outweigh any impacts that cannot be mitigated.

As Portland continues to face economic headwinds in the wake of the pandemic and amidst ongoing homelessness, mental health and addiction crises, government, business and non-profit leaders are seeking every available path to revitalize and restore the vibrancy of our central city. Redevelopment projects such as the one before you today are necessary to increase entertainment offerings, reactivate underutilized spaces and draw locals and visitors out to enjoy the central city once again.

The proposed project is especially important at this time as Portland has no appropriate mid-sized venues to be able to offer high caliber performances to audiences too large for a club and too small for a stadium. It would be incumbent upon the owners of such a new facility to create a partnership with their tenant that ensures they are additive to the local music scene and to protect our existing venue ecosystem from harm.

Thank you for your consideration and support.

Sincerely,

Jeff Miller
President & CEO

July 2, 2024

To: Land Use Hearings Officer
From: Portland Metro Chamber
Re: Portland Metro Chamber support for central eastside venue land use application (Case file: LU 23 111784 CU AD)

The Portland Metro Chamber (The Chamber) is greater Portland's Chamber of Commerce and represents the largest, most diverse network of businesses in the region. The Alliance advocates for business at all levels of government to support commerce, community health and the region's overall prosperity. We represent more than 2,300 members, from 27 counties, 13 states and virtually every industry sector. More than 80% of our members are small businesses.

We write today to express our strong support for the proposed 3,000-person music venue on Water Avenue, strategically located on the vacant workshop blocks adjacent to Interstate 5. We urge you to approve land use application 23-111784 CU AD. The joint development opportunities on Water Avenue of both the Future OMSI District, and the entertainment venue, offer a generational opportunity to secure the vitality of Portland's Central City for future generations, build thousands of units of housing, attract businesses, and, most importantly, connect the Central Eastside with the Downtown Core, Willamette River, and East Portland. Without question, this venue is needed, and, combined with the OMSI District will be a generational game changer for Portland.

The proposed central eastside venue will transform what has long been a neglected part of the Central City. This project not only promises to fortify Central Eastside's distinctive food, beverage, and retail scene, but will also lead to greater activation of the adjacent vacant property, fostering a more vibrant and prosperous business and pedestrian environment. Additionally, the 3,000-seat venue will lead to significant economic benefits for the Portland Central City and will greatly enhance the Portland's cultural and entertainment scene. The development team has done an excellent job of proposing a venue that will fill a capacity and technical void that has led to several artists choosing to skip Portland in their tour schedules. According to some respected analysts, each sold-out concert in the Central Eastside could result in approximately $1m in economic benefit.

The Chamber is a committed partner to the development of the proposed eastside venue as a key component of the combined generational opportunities – including Broadway Corridor, OMSI District, New Albina Vision, Rose Quarter, and Lloyd District - that will collectively write the next chapter of Portland's beloved Central City, enhance our livability, help solve our housing crises, create thousands of jobs, and secure Downtown for future generations.

Thank you for your time and consideration.

Sincerely,

Andrew Hoan
President & CEO, Portland Metro Chamber

Oregon Museum of Science and Industry

Subject: OMSI Letter of Support for the Central Eastside Venue Project

Case file: LU 23-111784 CU AD

Dear Hearings Officer,

I am writing on behalf of the Oregon Museum of Science and Industry (OMSI) to express our strong support for the Central Eastside Venue Project on the Workshop Blocks in the Central Eastside. This transformative project presents numerous benefits to the community, particularly in terms of activation of the area, economic development, enhanced security, and its complementary uses to the OMSI District Project.

As we strive to recover from the disruptions caused by the COVID-19 pandemic, the development of high-profile projects like the Central Eastside Venue Project are even more essential to highlight positive developments in our city and generate growth. This Project will have broad economic impacts and generate positive ripple effects by attracting visitors, driving local businesses, and fostering growth in various sectors, which is particularly needed in the current economic climate.

The Central Eastside Venue Project will act as a catalyst, invigorating the Central Eastside and bringing vibrancy to SE Water Ave during nighttime hours. The increased activity will improve nighttime safety, which is crucial. Importantly, the venue's nighttime activity will be complementary to the surrounding businesses that operate during the day.

The development partnership between Beam Development and Colas Development Group ensures that the Project has a diverse and local ownership group deeply involved in the CEID and the city at large. The Beam and Colas partnership has already demonstrated their commitment to engaging district partners, including OMSI, to address concerns and garner support. Their decision to make the venue available to local promoters is evidence of their dedication to working collaboratively with our community. OMSI looks forward to establishing a positive and cooperative relationship with the Central Eastside Venue Project.

We urge you to support the Project. It is a remarkable opportunity for the Central Eastside and for Portland.

Sincerely,

Erin Graham
President and CEO
Oregon Museum of Science and Industry (OMSI)
egraham@omsi.edu
O: 503-797-4600

From: Hearings Office Clerks
To: Bradley, Shelia
Subject: Fw: Live Nation land use
Date: Wednesday, July 10, 2024 12:00:26 PM

More testimony for land use case

Hearings Office Clerk
HearingsOfficeClerks@portlandoregon.gov
503-823-7307

From: Sophia Stalliviere <stallsd@gmail.com>
Sent: Tuesday, July 9, 2024 7:38 PM
To: Gulizia, Andrew <Andrew.Gulizia@portlandoregon.gov>; Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>
Subject: Live Nation land use

Hello Mr. Andrew Gulizia eat all,

Upon learning that the buckman neighborhood could be home for a new live Nation venue, I have many concerns with this decision. This does not go with what Portland is. Portland is a grassroots community. Allowing businesses like this to come in and syphon creativity from local artists will be another dagger to the city. Adding this venue will allow a big business who tax the little guy for music artists they want to hear will just allow the rich to get richer, it's just supporting that. And finally what will happen to this event space when live Nation isn't playing? Just allow to sit there? Why can't it be the community center that it was projected to be?
It's very concerning to allow a Goliath of a corporation to take over, it's just feeding the beast.

Thank you for your time
Sophia stalliviere

City of Portland, Oregon
Portland Permitting & Development
Public Infrastructure Permit Review - Transportation

David Kuhnhausen, Interim Director
Phone: (503) 823-7300
TTY: 711
www.portland.gov/ppd

Memorandum

Date: **July 10, 2024**

To: **Hearings Officer**

From: **Michael Piña, Development Review Planner, Public Infrastructure – Transportation. Portland Permitting and Development.**

Re: **LU 23-111784 CU AD (Hearings Office Case # 4240010)**

The applicant has provided additional information regarding intersection safety following a request from PBOT's Traffic Engineer. As such, staff has amended the second and third paragraph of the "*Safety*" bullet-point on page 3 of PBOT's Land Use Review Response to read as the following:

As shown in Table 6, one of the identified intersections is located at the intersection of SE Water Ave/SE Salmon St – where the proposed use is located. This is a 4-leg intersection with stop control located on the SE Salmon St ~~of the side street~~ approaches. Of the 6 recorded crashes over the 5-year period, four involved people running the stop sign (one being a bike running the stop sign), and two involved drivers running into a stopped vehicle (one being a parked car). Of the four collisions where a driver or bike ran the stop sign, the direction of travel was split between the east and west approaches of SE Salmon Street and included either an inattentive driver "failing to yield" or "passing the stop sign" as the cause, rather than an intersection design flaw.

The proposed venue will provide frontage improvements adjacent to these intersections which may improve driver awareness when approaching the SE Water Avenue intersection along SE Salmon Street, but overall, these collisions were caused by inattentive drivers and the existing condition nor the proposed venue is anticipated to exacerbate it.
~~Most of the collisions were angle/rear end type (4 of the 6 total collisions). Three of the collisions were caused by drivers failing to yield or passing the stop sign, two were caused by drivers running into a stopped or parked vehicle, and one was caused by a bike passing the stop sign.~~

PBOT standards are designed to provide safe conditions for all modes, especially pedestrian and cyclists. The applicant will be required to dedicate property along all three frontages and reconstruct the abutting pedestrian corridor to City standards. The applicant's TIS recommended curb extensions at both the SE Salmon and SE Main Street intersections along SE Water Ave, however, because there is a planned two-way cycle track along the site's SE Water frontage in the future, curb extensions are exempt at this location in accordance with Transportation Administrative Rule (TRN) 1.28. Additional ~~, including~~ safety improvements such as ~~striped~~ crosswalk stripping, signage, ~~additional~~ lighting, etc. will be determined during the review of the Public Works permitting process. ~~and curb extensions, mitigating potential conflicts in the future. PBOT will submit additional comments related to safety into the record prior to the public hearing.~~

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DKS 1050 SW 6TH AVENUE, SUITE 600 • PORTLAND, OR 97204 • 503.243.3500 • DKSASSOCIATES.COM

TECHNICAL MEMORANDUM

DATE: July 10, 2024

TO: Matthew Machado and Michael Pina | PBOT

FROM: Kevin Chewuk | DKS Associates

SUBJECT: Portland Workshop Blocks Venue
Transportation Impact Study Comment Responses

This memorandum provides responses to comments provided by the Portland Bureau of Transportation (PBOT) on June 26, 2024, on the revised Transportation Impact Study (TIS) prepared for the proposed Central Eastside Venue, dated May 22, 2024. The following summarizes the additional details requested in those comments.

COLLISION DATA AT THE SE WATER AVENUE INTERSECTIONS WITH SE SALMON STREET AND SE MAIN STREET

PBOT commented the following on page 9 of the TIS: "Provide additional information about these two locations as they are adjacent to the site. The information can be added to the narrative. Add any information about what effect this development would have related to previous and potential collisions."

PBOT commented the following on page 11 of the TIS: "Are there any proposed mitigations for the crash rate at this intersection?"

This comment was made in reference to the SE Water Avenue/SE Salmon Street and SE Water Avenue/SE Main Street intersections. The most recent five years of available collision data at the study intersections was obtained from ODOT and used to evaluate the collision history in the TIS (see pages 8-11 of the TIS). More details are provided below for the SE Water Avenue/SE Salmon Street and SE Water Avenue/SE Main Street intersections.

- **SE Water Avenue/SE Salmon Street intersection**

This data included 6 collisions at the SE Water Avenue/SE Salmon Street intersection and as noted it included a calculated crash rate greater than the critical crash rate, indicating that the frequency of collisions is high for the volume of traffic served. Of the 6 recorded crashes over the 5-year period, four involved people running the stop sign (one being a bike running the stop sign), and two involved drivers running into a stopped vehicle (one being a parked car). Of the four collisions where a driver or bike ran the stop sign, the direction of travel was split between the east and west

approaches of SE Salmon Street and included either an inattentive driver "failing to yield" or "passing the stop sign" as the cause.

- **SE Water Avenue/SE Main Street intersection**

The SE Water Avenue/SE Main Street intersection included 2 collisions and had a calculated crash rate well below the critical crash rate threshold, indicating the frequency of collisions is typical for the volume of traffic served. Of the 2 recorded crashes over the 5-year period, one involved a driver running the stop sign and one involved a driver running into a stopped vehicle. The cause of the collisions was recorded as "inattention" or "failing to yield".

The proposed venue will provide frontage improvements adjacent to these intersections which may improve driver awareness when approaching the SE Water Avenue intersection along SE Salmon Street and SE Main Street, but overall, these collisions were caused by inattentive drivers and the proposed venue is not anticipated to exacerbate it.

CROSSING IMPROVEMENTS AT THE SE WATER AVENUE INTERSECTIONS WITH SE SALMON STREET AND SE MAIN STREET

PBOT commented the following on page 28 of the TIS: "This may need to be expanded to include the type of crossing improvements proposed for the two SE Water intersections."

PBOT commented the following on page 55 of the TIS: "Include crossing improvements at SE Water/Salmon and Water/Main (primarily crosswalks with associated signage). These should be installed by the project."

This comment was made in reference to the recommended crossing improvements at the SE Water Avenue/SE Salmon Street and SE Water Avenue/SE Main Street intersections adjacent to the proposed venue.

The TIS includes recommended curb extensions on SE Salmon Street at the southwest corner of the intersection with SE Water Avenue and on SE Main Street at the northwest corner of the intersection with SE Water Avenue. Given the planned future two-way cycle track on the west side of SE Water Avenue adjacent to the proposed venue, no curb extensions are required into SE Water Avenue. To support this future two-way cycle track improvement, the existing curb extension into SE Water Avenue at the northwest corner of the SE Main Street intersection is proposed to be removed as part of the recommended curb extension improvement noted above into SE Main Street at the same corner. These proposed improvements are also recommended to include the associated crosswalk striping and signage as required. The final design of the curb extension and overall crossing/street layout will be determined during the public works permitting process.

PBOT
PORTLAND BUREAU OF TRANSPORTATION
1900 SW Fourth Ave., Suite 5000 Portland, OR 97201 503-823-5185
Fax 503-823-7576 TTY 503-823-6868 www.portlandoregon.gov/transportation
Chloe Eudaly Commissioner **Chris Warner** Interim Director

Chloe Eudaly Commissioner **Chris Warner** Interim Director

RESPONSE TO THE BUREAU OF DEVELOPMENT SERVICES
LAND USE REVIEW REQUEST

Portland Transportation
Development Review
Bureau of Transportation Engineering & Development

LU:	23-111784-000-00-LU	***AMENDED RESPONSE***	Date: ***July 10, 2024***
To:	Andrew Gulizia, Bureau of Development Services, B299/R5000		
From:	Michael Pina, B106/800, 503-823-4249		
Applicant:	Johnathan Malsin, BEAM DEVELOPMENT 1001 SE WATER AVE., SUITE 400 PORTLAND OR		
Location:	SE WATER AVE		

TYPE OF REQUEST: Type 3 procedure CU - Conditional Use

DESCRIPTION OF PROJECT

HO HEARING: Proposal: The applicant proposes to construct a new, 62,000-square-foot building on this site to be used as a concert venue with 1,280 seats and a maximum spectator capacity of 3,500. The applicant requests Conditional Use Review approval for a new Major Event Entertainment use in the IG1 zone. Type III Conditional Use Review is required by Zoning Code Sections 33.140.100.C and 33.815.040.A.1. The applicant also requests approval of two Adjustments to Zoning Code requirements for this project:

1. To reduce the minimum number of on-site, Standard A truck loading spaces from 2 to zero (Zoning Code Section 33.266.310.C.2.c). The applicant proposes to create 2 truck loading spaces which are primarily in the public right-of-way adjacent to the site subject to approval by the Portland Bureau of Transportation. However, loading areas in the public right-of-way do not count toward the Zoning Code requirement.
2. To reduce the amount of ecoroof area required from 14,617 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 2,100 square feet (Zoning Code Section 33.510.243.B.1).

Note: The applicant originally requested three Adjustments, including an Adjustment request to Zoning Code Section 33.266.200.B.1 to reduce the minimum number of on-site, short-term bike parking spaces from 32 to zero. The applicant had proposed to construct bike parking in the public right-of-way adjacent to the site as justification for this Adjustment. After discussion with the Portland Bureau of Transportation (PBOT), the applicant decided to withdraw this Adjustment request (Exhibit G-3). If this land use review is approved, the applicant will pay into PBOT's bike parking fund at the time of building permit review, as required by Zoning Code Section 33.266.210.E.1.b when there is insufficient space on-site to provide the required short-term bike parking. PBOT would then construct and maintain bike parking in the public right-of-way.

RESPONSE

The Portland Bureau of Transportation (PBOT) Development Review has reviewed the application for potential impacts regarding the public Right-of-Way (ROW), transportation services, Title 33, Title 17, and conformance with street designations according to the Transportation System Plan (TSP).

Major Event Entertainment (33.815.215)

To address the transportation approval criteria, the applicant submitted a professionally prepared Transportation Impact Study (TIS) by DKS and Associates, dated May 2024, in addition to the written narrative prepared by MacKenzie.

33.815.215.A.1: At this location, the City's Transportation System Plan (TSP) classifies the following abutting streets as follows:

Street Name	Traffic	Transit	Bicycle	Pedestrian	Freight	Emergency Response	Street Design
SE Salmon St	Local Service	Local Service	Major City Bikeway	Local Service in a Ped. Dist.	Freight District	Minor Response	Local Street
SE Water Ave	Traffic Access St	Local Service	Major City Bikeway	Major City Walkway in a Ped. Dist.	Priority Truck Street	Major Response	Neighborhood Main Street
SE Main St	Local Service	Local Service	City Bikeway	Local Service in a Ped. Dist.	Freight District	Minor Response	Local Street

The proposed Conditional Use project is supportive of the surrounding street designations of the Transportation Element of the Comprehensive Plan and TSP classifications. This criterion is met.

33.815.215.A.2: The proposed use is located within the Central Eastside Industrial Sanctuary. The applicant's TIS provided an analysis of existing, projected no-build, and post-development multi-modal transportation patterns. Conclusions indicate that since all of the development is located west of SE Water Ave, with the abutting east-west streets of SE Salmon and SE Main terminate into the Eastbank Esplanade, the proposed development will not conflict with existing truck and freight movement throughout the district. This criterion is met.

33.815.215.A.3.a: The applicant's traffic engineer has evaluated each of the evaluation factors to determine that that transportation system is capable of supporting the proposed use in addition to the existing uses in the area. PBOT Traffic Engineers have reviewed the applicant's TIS and approved the methodologies, analyses, assumptions, findings, and conclusions with regard to intersection capacity, Level of Service (LOS), trip generation, multi-modal safety, etc. to confirm that the transportation-related approval criteria have been addressed. This criterion is met.

The following is a summary of the applicant's TIS findings:

- *Safety:* For vehicle safety, the applicant's traffic engineer utilized Oregon Department of Transportation's (ODOT) Crash Data System over a five-year period from January 2016 to December 2020. There were 66 crashes recorded at the study intersections over the five-year period (see Table 4), with the most crashes occurring at the SE Stark St/SE Grand Ave and SE Stark St/SE MLK Jr Blvd intersections. Seven involved people walking or biking, including one at the SE Water Ave/SE Salmon St intersection. The most common collision types at the study intersections were angle, turning and rear-end crashes, many of which show "no yield" or "disregarded traffic signal" as the cited cause. In addition, the Union Pacific study rail crossings along the segment between SE Stark Street and SE Clay Street also had three reported incidents in the past five years, two in 2020 and one in 2022, two at the SE Salmon Street and one at the SE Clay Street crossings (see Table 5). Each of these incidents included a train striking a pedestrian, with two resulting in a fatality and one resulting in an injury.

  When an intersection's crash rate (crashes per million entering vehicles) is greater than the critical crash rate (an intersection's crash history compared to similar intersections, adjusting for volume), it's an indication that a design deficiency may exist and further study is warranted. As

shown in Table 6, one of the identified intersections is located at the intersection of SE Water Ave/SE Salmon St – where the proposed use is located. This is a 4-leg intersection with stop control located on the SE Salmon St approaches. Of the 6 recorded crashes over the 5-year period, four involved people running the stop sign (one being a bike running the stop sign), and two involved drivers running into a stopped vehicle (one being a parked car). Of the four collisions where a driver or bike ran the stop sign, the direction of travel was split between the east and west approaches of SE Salmon Street and included either an inattentive driver "failing to yield" or "passing the stop sign" as the cause, rather than an intersection design flaw.

The proposed venue will provide frontage improvements adjacent to these intersections which may improve driver awareness when approaching the SE Water Avenue intersection along SE Salmon Street, but overall, these collisions were caused by inattentive drivers and the existing condition, nor the proposed venue is anticipated to exacerbate it.

PBOT standards are designed to provide safe conditions for all modes, especially pedestrian and cyclists. The applicant will be required to dedicate property along all three frontages and reconstruct the abutting pedestrian corridor to City standards. The applicant's TIS recommended curb extensions at both the SE Salmon and SE Main Street intersections along SE Water Ave, however, because there is a planned two-way cycle track along the site's SE Water frontage in the future, curb extensions are exempt at this location in accordance with Transportation Administrative Rule (TRN) 1.28. Additional safety improvements such as crosswalk stripping, signage, lighting, etc. will be determined during the review of the Public Works permitting process.

- *Street Capacity/Level of Service (LOS)*: To determine the pre-build and post-build intersection capacity and LOS, turning movement data was obtained for the study intersections during the weekday and weekend pre-event period (6 p.m. to 8 p.m.) and post-event period (10:00 p.m. to 12:00 a.m.). Daily motor vehicle count data was also collected adjacent to the proposed venue along SE Water Avenue, south of SE Salmon Street and north of SE Main Street. The count data indicates that approximately 4,900 vehicles pass the proposed venue along SE Water Avenue during an average weekday. Of these vehicles, 1,300 travel northbound and 3,600 travel southbound. The highest number of trips along SE Water Avenue occurs from 5:00 – 6:00 p.m., with 488 vehicles passing the proposed venue (157 northbound and 331 southbound). During the pre-event and post-event peak hours, 165 and 35 vehicles pass the proposed venue along SE Water Avenue, respectively. For City study intersections along SE Water Avenue not designated on the Metro Regional Transportation Plan Arterial and Throughway Network, the City of Portland standards require a LOS "D" or better to be maintained for signalized intersections and a LOS "E" or better for intersections with stop control. As shown in Table 7, all study intersections meet the current mobility targets during the weekday and weekend pre-event and post event peak hours. All intersections along SE Water Avenue operate with a LOS B or better, while the signalized intersections at SE Stark Street/SE Grand Avenue and SE Stark Street/SE Martin Luther King Jr Boulevard operate with a LOS C or better, well below the current mobility targets.

  For Post-build expectations, Table 17 shows the future 2025 intersection operations at study intersections, with the proposed venue. As shown, all study intersections are expected to continue to meet mobility targets despite the added traffic growth from the proposed venue through 2025, despite an expected increase up to 14 percent during the pre-event peak hour and up to 41 percent during the post-event peak hour. All intersections along SE Water Avenue are expected operate with a LOS C or better, while the signalized intersections at SE Stark Street/SE Grand Avenue and SE Stark Street/SE Martin Luther King Jr Boulevard also operate with a LOS C or better. Therefore, the system evaluation found no street capacity or level of service impacts with the proposed venue, as shown in Table 17, 18 and 19.

- *Pedestrian, Cycling, and Transit Availability:* The proposed venue is very accessible to pedestrians and bicyclists and is well-served by a network of continuous sidewalks and bike facilities on the surrounding streets between nearby existing private vehicle parking, bike parking, ride hailing or transit stops. The proposed venue is also adjacent to existing bikeways along the Eastbank

Esplanade, SE Water Avenue and SE Salmon Street. Current transit service near the proposed venue is primarily accessed via stops located on SE Grand Avenue and SE Martin Luther King Jr Boulevard between SE Salmon Street and SE Taylor Street, on the SE Madison Street and SE Hawthorne Boulevard viaducts (accessed via stairs from SE Water Avenue), on the SE Morrison Street and SE Belmont Street viaducts (accessed via stairs from SE Water Avenue), along SW 1st Avenue in downtown Portland across the Morrison Bridge, and near SE Tilikum Way. Event attendees and employees who utilize transit for travel to and from the venue would primarily utilize SE Water Avenue, SE Salmon Street and the Eastbank Esplanade to access transit services before and after events. Current schedules indicate that the TriMet Routes 6, 14 and 15 and MAX light-rail service near the proposed venue extends beyond the conclusion of a typical event (i.e., expected to be 11:00 p.m. or later for most events).

- *Connectivity:* The subject site located at the intersection of three ROWs meeting the City's Street spacing standards noted in 17.88.040. Therefore, additional connections are not required.

- *Access Restrictions:* Of the three frontages, SE Main Street is the lowest classified street, therefore the appropriate frontage to which provide vehicular access. As discussed further below, the applicant proposes to provide loading from SE Main Street, reviewed through a PBOT Angle Loading Permit.

- *On-Street Parking Impacts:* Parking surveys were conducted between 6:00 p.m. and 11:00 p.m. on a weekday (Thursday, July 27, 2023) and a weekend (Saturday, August 5, 2023) within a 0.25 mile or about a 10-minute walk of the proposed venue, which is generally considered a comfortable walking distance. This roughly includes the blocks bounded by the Willamette River to the west, SE Morrison Street to the north, SE Grand Avenue to the east and SE Clay Street to the south. On-street parking in the surveyed area is either permit parking (i.e., Zone G or Zone N permit) or available via a 2-hour time limit for non-permit holders and enforced on weekdays only from 7 a.m. to 6 p.m. in non-metered spots and 8 a.m. to 6 p.m. in metered spots. As shown in Table 14, about 1,318 parking spots were identified within the surveyed area, including 1,084 on-street parking stalls and 234 parking spots in public off-street lots (see Figure 16 and Figure 17). A maximum estimated parking occupancy for the entire surveyed area of 32 percent was observed during the weekday and 17 percent was observed during the weekend, both occurring in the 5:00 p.m. and 7:00 p.m. survey period.

  Table 15 shows that a sold-out concert is estimated to generate demand for 915 parking spaces during both a weekday and weekend event, with attendee and employee arrivals occurring between 6:00 p.m. and 9:00 p.m. and most assumed to use parking locations within 0.25 miles of the proposed venue (i.e., 763 of the 915 parking spaces). The total occupied parking spaces with the proposed venue is estimated to be highest between 8:00 p.m. and 9:00 p.m. during both a weekday and weekend event when the attendee and employee parking demand is at its highest (i.e., demand for 763 spaces within 0.25 miles of the proposed venue). The parking occupancy rate during this period is estimated to reach 82 percent during a weekday event (i.e., 1,074 parking spaces) and 71 percent during a weekend event (i.e., 930 parking spaces) for the 1,318 parking spaces within 0.25 miles of the proposed venue. The estimated parking occupancy rates between 6:00 and 8:00 p.m. are under 80 percent for a weekday event and under 70 percent for a weekend event.

  Table 16 shows that a weekday special event is estimated to generate demand for 131 parking spaces, with attendee and employee arrivals occurring between 12:00 p.m. and 3:00 p.m. and all are assumed to use parking locations within 0.25 miles of the proposed venue. The total occupied parking spaces with the proposed venue is estimated to be highest between 1:00 p.m. and 2:00 p.m., when 1,135 parking spaces are utilized. This represents an 86 percent occupancy rate for the 1,318 parking spaces within 0.25 miles of the proposed venue. The estimated parking occupancy rates between 12:00 and 1:00 p.m. and are 2:00 and 3:00 p.m. are at or below 84 percent. PBOT regularly evaluates the on-street parking demand and has the ability to adjust controlling factors in accordance with existing practices and polices.

- *Neighborhood Impacts:* The applicant's TIS did not overtly address the potential of neighborhood impacts to the immediate vicinity or district as a whole. The purpose of the IG zone is to protect the Industrial Sanctuary area designated by the Comprehensive Plan. The Industrial Sanctuary zones identify areas where industrial uses may locate, while other uses - such as the current proposal - are restricted to prevent potential conflicts and to preserve land for industry. In this instance, the proposed venue is located in the outer portion of Central Eastside subdistrict, and the majority of proposed operations would occur when many industrial and allowed uses are closed, offsetting the impact to the district. PBOT shared concerns with the applicant that due to the proposed loading in SE Main St, the property directly to the south will be directly affected, which could impact the nature of future development of the neighboring property. PBOT recommends that a letter from the property owner (Prosper Portland) be provided acknowledging the proposed development.

33.815.215.A.3.b: In accordance with 17.88.020, the proposed project will be required to dedicate and reconstruct the abutting frontages to City standards by providing a 12-ft wide pedestrian corridor along SE Salmon and SE Main streets, and a 15-ft wide corridor along SE Water Street. These improvements will be reviewed through a Public Works permit, which is to receive 30 percent concept approval and bond payment prior to issuance of the building permit. Additional frontage improvements such as street lighting, striped pedestrian crossings, curb extensions, signage, and preparation of ROW bike parking will also be evaluated at time of Public Works permit review.

The applicant also prepared a Transportation Demand Management (TDM) plan to reduce the impact of events on the transportation system and provide employees and attendees with information and incentives to use transportation methods other than single occupancy vehicles. The plan provides strategies to increase the walking, biking, transit, and ride hailing services to ensure that people who travel via motor vehicle effectively navigate to their parking, drop-off, or pick-up location with fewer delays than what would occur under an unmanaged setting. PBOT Parking Control and Traffic Engineering will evaluate ride hailing locations as deemed appropriate to serve the use and reserve the right to modify and relocate such service locations as the project comes online.

The applicant also identified several Capital Improvement Projects (CIP) in and around the area that will also help mitigate anticipated impacts and strengthen the City's mode-split goals.

Therefore, PBOT finds that with these measures, the transportation impact of the project will be able to sufficiently mitigate transportation-related impacts immediately surrounding the site and within the district. This criterion is met.

33.815.215.A.3.c: As noted above, all required frontage improvements, payment into the bike fund, and implementation of TDM strategies will be in place by the time the development is complete. This criterion is met.

In conclusion, based on the evidence included in the record, PBOT finds the applicant has demonstrated with required frontage improvements, implementation of proposed TDM measures, and adhering to strict conditions set forth in the required Angle Loading Permit, the proposed project will support access, safety, and function for users of all modes; and that the transportation system will be capable of supporting the proposed venue, in addition to accommodating the existing uses in the area.

Adjustment Approval Criteria (33.805.040)
The applicant has requested an Adjustment to waive the on-site loading requirement for two Type A loading spaces, and instead, utilize the SE Main St ROW. While the building will have two Standard A loading docks near the southwest building corner, the standing area for the docked trailers and semi-tractors will be located mostly within the SE Main Street right-of-way rather than on the property itself. Rationale for this proposal is in part due to the size and function of the venue to operate effectively utilizing the full limitations of the site, and the size of two Type A loading spaces would take up a large part of the building footprint. Secondly, being located in the Central Eastside Industrial Sanctuary, truck loading has historically been accommodated in the ROW, with review from PBOT via an Angle Loading Permit. The applicant provided detailed information in the TIS describing the loading process, anticipated

schedule, and safety measures to ensure that the proposed loading occurs safely and will not affect the other transportation functions of the abutting right-of-way. In discussions with the applicant, PBOT City Traffic Engineer expressed concerns over the safety of large vehicles maneuvering within the intersection of SE Water and SE Main Street, then backing up into the proposed loading spaces. The City Traffic Engineer conveyed to the applicant that if the proposed loading is found to be in violation of the conditions and stipulations of the Angle Loading permit, that the City retains the right to fine the venue owner/operator and/or revoke the site's Angle Loading Permit at any time. However, assuming ongoing compliance with all applicable permits and standards, PBOT finds that the proposed will not negatively impact the surrounding area, and that the proposed Adjustment equally meets the purpose of the code.

RECOMMENDATION

PBOT has no objections to the proposed Major Event Entertainment Conditional Use, subject to the following conditions:

1. Prior to issuance of a building permit for this development, the applicant must receive 30 percent public works concept approval and make any required bond payment for required frontage improvements abutting the site.

2. Prior to issuance of a building permit for this development, the applicant must obtain approval of the appropriate permit as determined by PBOT for the proposed truck loading in SE Main Street. The applicant must adhere to all the conditions and stipulations of said permit for the life of the proposed use. If any conditions are found to be in violation, the applicant may be fined and/or any applicable permits may be revoked.

3. The applicant must continually implement the transportation demand management (TDM) measures identified in the TDM plan in Exhibit A-10 that are within their control.

4. The applicant must assess the bike parking capacity on an annual basis for the first 3 years after the concert venue begins operation and then every other year after that ending with year 11. That assessment must include bike count averages for events throughout the year. The applicant must send their assessment to PBOT Development Review and PBOT Active Transportation and Safety. If demand consistently exceeds the provided bike parking, the applicant must work with PBOT on remedies, including but not limited to adding additional bike racks or a contract for offering temporary bike racks during events.

Hearings Office
City of Portland
1900 SW 4th Avenue, Room 3100, Portland, OR 97201 phone: 503.823.7307
www.portland.gov/omf/hearings fax: 503.823.4347
hearingsofficeclerks@portlandoregon.gov

RECORD CLOSING INFORMATION

LU CASE #23-111784 CU AD

Hearings Officer: William Guzman

HO CASE #4240010

Hearing began at 1:01 ☐ a.m. ☑ p.m. on July 10, 2024 and

closed at 3:51 ☐ a.m. ☑ p.m.

☐ THE RECORD WAS CLOSED AT THAT TIME.

Hearing is continued to _____ ☐ a.m. ☐ p.m. on _____ because:

_____

Record was held open until:

4:30 p.m. July 17, 2024 for New Evidence

4:30 p.m. July 24, 2024 for Response to New Evidence

4:30 p.m. July 31, 2024 for Applicant's Final Rebuttal

4:00 p.m. _____ for _____

- The record will close at 4:30 p.m. on the latest date shown. If, in the applicant's final rebuttal, the Hearings Officer receives a request from the applicant to close the record early, the Hearings Officer has discretion to grant or deny the request.

☐ The applicant waived applicant's rights granted by ORS 197.763 (6)(e), if any, to an additional seven day time period to submit written rebuttal into the record.

Internal Use Only

Portland Hearings Office
Case #4240010
Bureau Case #LU 23-111784 CU AD
Exhibit #17
Page 1 of 1

From: Hearings Office Clerks

Subject: Fw: 23-111784 CU AD - Written Testimony
Date: Wednesday, July 10, 2024 4:14:55 PM

More land use testimony to upload to my case and add to mailing list.

Hearings Office Clerk
HearingsOfficeClerks@portlandoregon.gov
503-823-7307

From: kevin killian <kevinkillian21@gmail.com>
Sent: Wednesday, July 10, 2024 3:12 PM
To: Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>
Subject: 23-111784 CU AD - Written Testimony

Hello,

I am writing to submit a written testimony to the land use proposal for the Live Nation concert venue.

The proposal is requesting an exemption to the eco roof requirement that would result in only meeting roughly 15% of the eco roof requirement. The proposal does meet the stormwater requirements set by the city and has integrated planters and eco 'net' using stainless cables for plants to grow up the side of the building; these are an effort to mitigate the lack of eco roof coverage.

However, the proposal does not quantify the effects of these alternatives relative to the eco roof requirement. The eco roof requirement is not near to being met and it has not been proven that these mitigation efforts will make up an equal effect of the remaining 85% of the ecoroof requirement. These mitigations do not effectively meet the intention of the eco roof requirement and this proposal should be rejected.

In addition, Live Nation has a track record of shady business practices and a history of squeezing out the small local promoters and venue owners in other cities. Portland has a rich music culture that is run almost entirely by local promoters and artists. Allowing Live Nation to enter our city puts this culture at risk. Live Nation should not be allowed to move forward with this project.

Cheers,
Kevin Killian
1831 SE Hawthorne Blvd
Portland, OR 97214

BIKELOUD

bikeloudpdx.org | @bikeloudpdx | @bikeloudpdx | bikeloud

July 10, 2024
To: HearingsOfficeClerks@portlandoregon.gov Cc: Andrew.Gulizia@portlandoregon.gov

CASE FILE: LU 23-111784 CU AD (Pre-Application Conference # 22-128857 PC)
REVIEW BY: Hearings Officer (Hearings Office Case # 4240010)
WHEN: July 10, 2024, at 1:00 PM

I'm writing on behalf of BikeLoud to voice our interest and concern on the case file above. We are interested in how the proposed on-street bicycle parking, 108 stalls, will be coordinated with construction of the building. We are also interested in the 10 long term bicycle parking spaces, their location and design relative to venue employee needs.

Portland, as a City, should be doing everything it can to enable Portlanders to go by bike. The location of this site makes it ideal for many concert goers to arrive by bike, but planning accommodations for secure, comfortable, and convenient bike parking for the amount and variety of bicycles and riders expected is not an easy task.

We are concerned that the sidewalk along Salmon Street is not wide enough for an attractive experience for people walking and biking. Perhaps Salmon Street could have 6' advisory bike lanes with a 15' center aisle from Water Ave to the Eastbank Esplanade, or could be a "Woonerf" shared street. We are interested in events with "a maximum spectator capacity of 3,500" mentioned on page 2 of the case file. How many additional bike racks would be needed for an event of that size?

We recommend:

- Bike racks are installed *diagonally* to reduce handlebar conflicts.
- Security, lighting, and covering for short-term bicycle parking.
- Electrical outlets for e-bike charging, and larger spaces for cargo bike parking.
- All bicycle parking is ready for the very first event at this concert venue.
- Bike racks could be installed on concrete panels with tree wells in between.

We would like a response to this letter from the Bureau of Transportation and the Bureau of Development Services within 30 days. A face to face meeting could also be acceptable.

Sincerely,
Aaron Kuehn
Board Chair of BikeLoudPDX

From: Suzannah Stanley <SStanley@mcknze.com>
Sent: Wednesday, July 10, 2024 11:17 AM
To: Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>; Gulizia, Andrew <Andrew.Gulizia@portlandoregon.gov>
Cc: Jonathan Malsin <jonathan@beamdevelopment.com>
Subject: Applicant presentation for LU 23-111784 CU AD

Hello Hearings Office and Andy,
Attached is our presentation for the hearing this afternoon. Can someone on your end please put this on the screen during our presentation portion?

Thank you,

Suzannah Stanley
D 971-346-3808 **C** 503-839-7036

Land Use Planning
Senior Associate
Professional Licenses & Certifications

Disclaimer

Mackenzie.
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LAND USE AND TRANSPORTATION PLANNING ▪ LANDSCAPE ARCHITECTURE
PORTLAND, OR | VANCOUVER, WA | SEATTLE, WA
www.MACKENZIE.inc

Central Eastside Venue Conditional Use Review

Applicant Presentation

July 10, 2024

BEAM CDG
COLAS DEVELOPMENT GROUP

Applicant Team

- Beam Development: Jonathan Malsin
- Colas Development Group: Andrew Colas
- DKS Associates: Kevin Chewuk (Traffic)
- Mackenzie: Suzannah Stanley (Land Use Planner)
- Lever (Architecture)
- Vega Civil Engineering: Martha Williamson (Civil Engineer)
- Dunn Carney: Damien Hall (Land Use Legal Counsel)

BEAM CDG
COLAS DEVELOPMENT GROUP

Outline

1. Project and Location
2. Development Partnership
3. Title 33 and Transportation Review

BEAM CDG
COLAS DEVELOPMENT GROUP

Portland Hearings Office
Case #4240010
Bureau Case #LU 23-111784 CU AD
Exhibit #20
Page 5 of 14

1. Project and Location

Plan District: Central City (Central Eastside Subdistrict)

Zoning: IG1 – General Industrial 1

Neighborhood: Buckman

- Centrally located, underutilized site for decades, excellent multi-modal access
- Neighborhood currently struggles with homelessness, trash, and vandalism
- Post-COVID, fewer in-person employees support local businesses

November 2021 image at SW Salmon & SE Water Ave (future main entrance). Campers and vandalism, downtown skyline beyond

1. Project and Location

- Conditional Use review required for Major Event Entertainment use in IG1. This approval is for the **use**
- Adjustments needed for ecoroof and loading

A Few Key Approval Criteria:

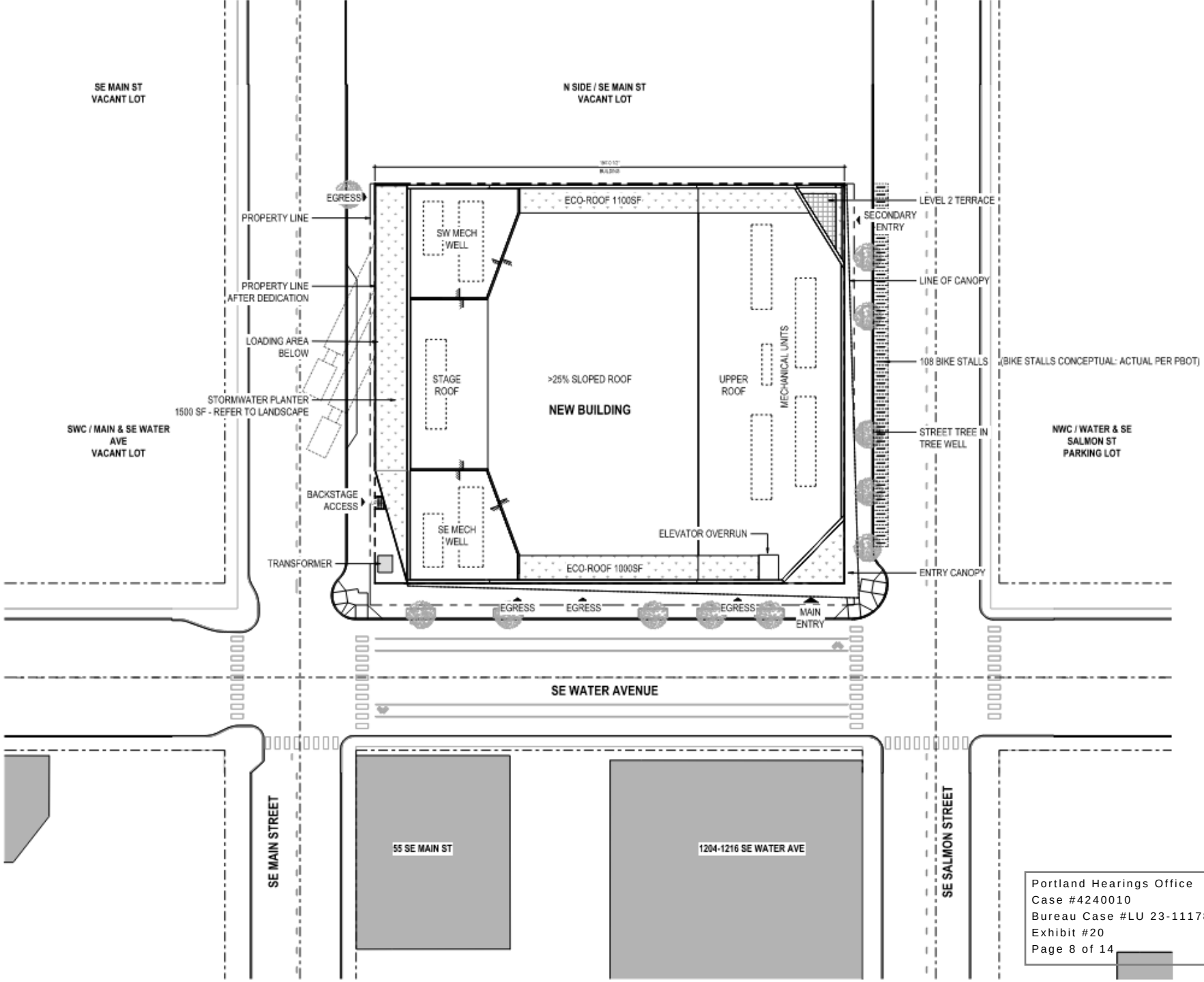
B. Appearance. The appearance of the facility is consistent with the intent of the zone in which it is to be located and with the character of the surrounding uses and development;

- Development team and architect have designed a visually compatible but striking building
- Building takes up almost entire site, compatible with development pattern in the CEID

Street trees, bike parking, and other frontage improvements not shown

Rendering at SW Salmon & SE Water Ave (future main entrance)

BEAM CDG
COLAS DEVELOPMENT GROUP



Portland Hearings Office
Case #4240010
Bureau Case #LU 23-111784 CU AD
Exhibit #20
Page 8 of 14

1. Project and Location

CU Approval Criteria:

C. Benefit. Public benefits of the proposed use outweigh any impacts that cannot be mitigated;

- Limited impacts are mitigated by proposed conditions
- Public benefits are strong: to the neighborhood fabric as well as monetary
- Develop a vacant lot
- Eyes on the street for more hours of the day, into the night
- Frontage improvements
- Economic, fiscal, and spillover benefits:
    - Occupy missing gap in the current venue ecosystem and Portland assets
    - Provide a facility size and characteristics not current found in the market; may increase the pool of local performances that can be accommodated
    - Attract a greater number of artists to the market in general
    - Once fully operating, support 71 full time equivalent jobs within Multnomah County
    - Other economic benefits include the generation of significant tourism revenue, construction jobs, property tax revenues, and misc. tax contributions from operations.

BEAM CDG
COLAS DEVELOPMENT GROUP

1. Project and Location

Adjustment Approval Criteria:

B. …the proposal will be consistent with…the desired character of the area;

(Character of the area: IG1, Central City Plan District, Buckman Neighborhood Plan, Central City 2035 Plan)

Buckman Neighborhood Plan

Objective 1.6. Support planning and design of new developments that enhance neighborhood livability.

Objective 6.16. Encourage visual, literary, and performing arts to thrive in Buckman

Central City 2035 Plan

Goal 1.A. Portland's Central City is the preeminent regional center for commerce and employment, arts and culture, entertainment, tourism, education and government.

Policy 1.4. …Expand upon activities in the Central City that support tourism and complement economic success, vibrancy, and livability, with a special focus on retail, cultural events and institutions, public spaces, arts and entertainment, urban design, and transportation.

BEAM CDG
COLAS DEVELOPMENT GROUP

2. Development Partnership

Project Roles

Co-developer: Beam Development, expert in CEID issues and development
Co-developer: Colas Development Group, leaders in the community
Tenant: Live Nation, live event industry leader
Current Property Owner: Prosper Portland, City's agency tasked with making economic development choices

Development Team Considerations

- Beam and Colas have been analyzing redevelopment options since 2018 to reinvigorate this site
- Prosper Portland commissioned an economic analysis and found benefits for the city as a whole
- Job creation with strong wages and benefits aligns with City's economic development goals

BEAM CDG COLAS DEVELOPMENT GROUP

Neighborhood & Local Stakeholder Support

- OMSI
- Bunk Bar
- Boke Bowl
- Central Eastside Industrial Council (CEIC)
- Portland Metro Chamber
- Travel Portland

BEAM CDG
COLAS DEVELOPMENT GROUP

3. Title 33 and Transportation Review

- We fully agree with staff report
- A job-creating entertainment venue is anticipated and desired by plan district and neighborhood plan
- Team has worked with PBOT and BDS to make this an application that the bureaus can uniformly support as consistent with the approval criteria
- Multiple versions of TIS, strong TDM plan with measures
  - Clear conditions including ongoing obligations to monitor and enforce TDM plan

Resulting Design

- Unique neighborhood that adds to the project's character and success
- Loading Adjustment due to site size and existing loading patterns in neighborhood
- Building designed effectively and efficiently for concert venue while stormwater standards fully met; ecoroof Adjustment mitigated
- Bike parking solution to use ROW efficiently and support TSP goals
- Shared interest to support multiple transportation modes to improve neighborhood and attendee experience

BEAM CDG
COLAS DEVELOPMENT GROUP

Questions?

BEAM CDG
COLAS DEVELOPMENT GROUP

From: Jamie Dunphy <jamie@musicportland.org>
Sent: Wednesday, July 10, 2024 12:20 PM
To: Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>
Subject: Testimony in LU 23-111784 CU AD on 7/10/24

Hello,

Attached, please find testimony for the record on LU 23-111784 CU AD, the conditional use hearing for the proposed Live Nation music venue to be heard today 7/10 at 1:00pm.

I will be delivering these remarks in testimony as well, but would like my written remarks to be included on the record.

Thank you!

Jamie Dunphy
503-956-8412 (c)
MusicPortland Board of Directors
Chair of the Music Policy Council
Host of Stumptown Soundcheck on PRP 99.1

LU 23-111784 CU AD
07/09/2024

To whom it may concern,

My name is Jamie Dunphy and I'm a volunteer board member speaking on behalf of the organization MusicPortland. We are a nonprofit, volunteer-led organization focused on supporting Portland's independent music industry.

MusicPortland has been a stakeholder in the proposed development under consideration today for more than two years, receiving regular communications and meetings about the proposed Live Nation music venue. However, we were not informed about this hearing. We first learned that this hearing was happening only six days ago thanks to a community member bringing it to our attention.

Portland's independent music industry currently provides over 20,000 jobs, nearly $1billion in labor income, and over $3billion in local economic activity. On behalf of that independent industry, we have extremely serious concerns about the proposed Live Nation operated music venue, their choice of location, their requests for exemption, and the likely negative impacts to the neighborhood and broader city. This proposal does not suit the neighborhood, and it's unique transportation infrastructure limitations. This proposal does not accurately address the specific concentrated traffic density during load-in and load-out, crowd control and parking before and after the event, or emergency response times related to the frequent traffic obstructions due to the train schedule in the Central Eastside.

As such, **MusicPortland would like to request a continuance of this hearing so that we may have sufficient time to prepare our formal objections to this conditional use application.** If a continuance is unacceptable at this time, we request that the record stay open for an additional 21 days so that we may have time to organize our community's specific concerns.

MusicPortland is dedicated to the success of Portland's $3billion independent music industry.

Respectfully submitted,

Jamie Dunphy
MusicPortland Board Member

City of Portland, Oregon - Bureau of Development Services
1900 SW Fourth Avenue • Portland, Oregon 97201 | 503-823-7300 | www.portlandoregon.gov/bds

Request for Extension of 120-Day Review Period

State law requires the City to issue a final decision on land use reviews within 120 days of receiving a complete application. State law (ORS 227.178) also allows the applicant to request in writing an extension of the 120-day review period for up to an additional 245 days. When extensions are requested, it is important to ensure that there is adequate time to accommodate review of new material, drafting the decision, and any required hearings (including appeals) within the extended review period. Generally, a decision must be rendered approximately 75 days prior to the end of the review period in order to accommodate appeals.

If requesting an extension of the 120-day review period, please sign this form and return it to the Bureau of Development Services (BDS) planner assigned to your case.

Case Information

1. Applicant Name: Jonathan Malsin
2. Land Use Case Number: LU # 23-111784 CU AD
3. BDS Planner Name: Andy Gulizia

Extension Request

Please check one of the following:

■ Extend the 120-day review period for an additional 14 days.
(insert number)

☐ Maximum allowed extension: 245 days

The total number of extensions requested cannot exceed 245 days.

By checking the box below, I acknowledge that I am requesting the 120-day review period for my land use review application to be extended for the number of days specified.

Typed Name: Jonathan Malsin Date 12/18/23

I acknowledge the typed name above as my signature. ☑

From: Gulizia, Andrew <Andrew.Gulizia@portlandoregon.gov>
Sent: Wednesday, July 10, 2024 8:37 AM
To: Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>
Cc: bergenomatic@gmail.com <bergenomatic@gmail.com>
Subject: FW: Opposition to the Buckman neighborhood concert venue

Thanks for your comments, Katie.

Hearings Office Clerks, please add this email to the record for LU 23-111784 CU AD (HO file # 4240010).

Andy Gulizia, City Planner (he/him)
Portland Permitting & Development – City of Portland
Title 33 Section, Land Use Services Division
1900 SW 4th Avenue, Suite 5000
Portland, OR 97201
(503) 865-6714
andrew.gulizia@portlandoregon.gov
www.portland.gov/ppd
work hours: Monday-Friday, 8:00 – 5:00

From: Katie Bergen <bergenomatic@gmail.com>
Sent: Wednesday, July 10, 2024 8:32 AM
To: Gulizia, Andrew <Andrew.Gulizia@portlandoregon.gov>
Subject: Opposition to the Buckman neighborhood concert venue

Hi Andrew,

I'm writing to express my opposition to the proposed music venue in the Buckman neighborhood. It

appears this will be owned and operated by Live Nation or someone on behalf of Live Nation, which would directly impact the ability of smaller music promotors and venues to compete and thus they would lose money and possibly not be able to continue their operations, opening up more opportunity for Live Nation.

Portland is the only city without a Live Nation venue and I personally love that! They are a giant monopoly that puts smaller companies/promotors out of business. I already know of two Oregon festivals that had to not operate this year or cancel due to Live Nation taking talent away by paying more or impacting ticket sales by having direct competition. I really don't want to see that happen in Portland and will do anything I can to help stop it from happening.

Thank you,

Katie Bergen

From: Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>
Sent: Wednesday, July 10, 2024 9:04 AM
To: Gulizia, Andrew <Andrew.Gulizia@portlandoregon.gov>; kathleen.e.fleischer@gmail.com <kathleen.e.fleischer@gmail.com>
Subject: Re: WEB: 2023-111784-000-00-LU

Hello - thank you for your written testimony, it will be added to the evidence considered by the Hearings Officer.

Hearings Office Clerk
HearingsOfficeClerks@portlandoregon.gov
503-823-7307

From: Gulizia, Andrew <Andrew.Gulizia@portlandoregon.gov>
Sent: Wednesday, July 10, 2024 8:14 AM
To: Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>
Subject: FW: WEB: 2023-111784-000-00-LU

Thanks for your comments, Kate.

Hearings Office Clerks, please add this email to the record for LU 23-111784 CU AD (HO file # 4240010).

Andy Gulizia, City Planner (he/him)
Portland Permitting & Development – City of Portland
Title 33 Section, Land Use Services Division
1900 SW 4th Avenue, Suite 5000
Portland, OR 97201
(503) 865-6714
andrew.gulizia@portlandoregon.gov
www.portland.gov/ppd
work hours: Monday-Friday, 8:00 – 5:00

-----Original Message-----
From: Kate Fleischer Sena <kathleen.e.fleischer@gmail.com>
Sent: Tuesday, July 9, 2024 7:19 PM

To: Gulizia, Andrew <Andrew.Gulizia@portlandoregon.gov>
Subject: WEB: 2023-111784-000-00-LU

Hello Andrew!

I read on the KOIN website about the proposed new concert venue on SE Water between Main and Salmon.

I'm not a resident of Portland, but I do work in the area of the proposed venue. Do you realize that it is one block from working train tracks? And when the trains go by, they are LOUD! So I hope the walls of the venue are going to be thick and well-insulated!

Also, the trains may prevent drivers (as well as pedestrians) from reaching the venue on time for a performance.

The article mentioned proximity to mass transit. While technically this is true, one would have to walk several blocks down dark streets with code-violations sidewalks (and detritus) between the venue and the nearest transit, or climb multiple floors worth of stairs (which often smell of urine and have individuals passed out or sleeping). Certainly not an option for mobility-challenged individuals.

Currently, there are homeless people (campers and others) who hang around. That's another consideration.

You might want to literally walk the area, especially at night.

I'm not for or against the venue. I just wanted to raise some issues that I think you should be aware of.

Thanks for listening!

Kate Sena

Sent from my iPhone

From: Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>
Sent: Wednesday, July 10, 2024 9:10 AM
To: Gulizia, Andrew <Andrew.Gulizia@portlandoregon.gov>
Cc: portlandtwilight@gmail.com <portlandtwilight@gmail.com>
Subject: Re: No on Land Use Zoning

Hello - thank you for your written testimony, it will be added to the evidence considered by the Hearings Officer.

Hearings Office Clerk
HearingsOfficeClerks@portlandoregon.gov
503-823-7307

From: Gulizia, Andrew <Andrew.Gulizia@portlandoregon.gov>
Sent: Wednesday, July 10, 2024 8:14 AM
To: Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>
Cc: portlandtwilight@gmail.com <portlandtwilight@gmail.com>
Subject: FW: No on Land Use Zoning

Hearings Office Clerks,

Please add this email to the record for LU 23-111784 CU AD (HO file # 4240010).

Thanks,

Andy Gulizia, City Planner (he/him)
Portland Permitting & Development – City of Portland
Title 33 Section, Land Use Services Division
1900 SW 4th Avenue, Suite 5000
Portland, OR 97201
(503) 865-6714
andrew.gulizia@portlandoregon.gov
www.portland.gov/ppd
work hours: Monday-Friday, 8:00 – 5:00

From: Chad Colwell <portlandtwilight@gmail.com>
Sent: Tuesday, July 9, 2024 6:56 PM
To: Gulizia, Andrew <Andrew.Gulizia@portlandoregon.gov>
Subject: No on Land Use Zoning

Hello,

Please say No to the Land Use for this project. Portland does not need a Live Nation venue. By allowing this music venue, the local independent music community that Portland is famous for, will be decimated.

Live nation places extreme radius clauses against other venues for booking artists.

Support the local music community by saying No to this Land Use permit.

https://www.portland.gov/ppd/zoning-land-use/events/2024/7/10/notice-land-use-hearing-lu-23-111784-cu-ad

Chad Colwell

From: Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>
Sent: Wednesday, July 10, 2024 9:12 AM
To: Debra Krueger <info@debrakruegerskinstudio.com>
Cc: Landuseintake <landuseintake@portlandorego.gov>
Subject: Re: Case File LU 23-111784 CU AD Live Nation Venue

Hello - thank you for your written testimony, it will be added to the evidence considered by the Hearings Officer.

Hearings Office Clerk
HearingsOfficeClerks@portlandoregon.gov
503-823-7307

From: Debra Krueger <info@debrakruegerskinstudio.com>
Sent: Tuesday, July 9, 2024 9:33 PM
To: Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>
Cc: Landuseintake <landuseintake@portlandorego.gov>
Subject: Case File LU 23-111784 CU AD Live Nation Venue

To Whom it May Concern,

Unfortunately I am unable to attend the zoom meeting tomorrow at 1 pm as I will be working. I am writing as a concerned business owner who operates a skincare studio out of the East Bank Commerce Center. The construction alone will be a major disruption to my business. I recently relocated my business to Portland in 2021 and was forced out of my first studio due to vandalism and possibly will need to move again. I'm already considering exiting Portland as in my short time here I've already been met with bureaucratic challenges.

I don't disagree that Portland is in need of an another music venue. I am a music lover and would love another venue and see a couple current venues reinvest in their venues and clean them up to make them more appealing. However, Live Nation will likely dry up our local promoters since they have monopolized a huge portion of the music industry.

Personally, I think the location is just awful for a music venue. I would like to know how the city plans to address parking for the community and business owners during construction and thereafter since it's leveraging itself as building more job opportunities.

What considerations has the proposed development taken in regarding traffic flow and grid lock with the train? As a business owner, I have witnessed and experienced the effects of the train being stopped for up to 40 minutes. Imagine 3,500 people trying to get to a concert and the train is stopped or a band is trying to get to a venue to set up for sound check. I imagine this causing stress and chaos on both ends. The traffic that gets backed up on to I-5 is already a fiasco.

There is no public transportation to Water Avenue. This is not NYC where you can put a music venue in the industrial edge of Greenpoint/Williamsburg where mass transportation is reliant on the subway.

I personally think in this area a flow of in and out traffic through the day instead of a massive amount at once is more ideal. I'd love to see more restaurants and shopping.

Kind Regards,
Debra

1001 SE Water Ave #255
Portland, OR 97214

From: Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>
Sent: Wednesday, July 10, 2024 9:14 AM
To: Carolyne Holcomb <carolyne@ceic.cc>; Gulizia, Andrew <Andrew.Gulizia@portlandoregon.gov>
Subject: Re: Testimony for case file LU 23-111784 CU AD

Hello - thank you for your written testimony, it will be added to the evidence considered by the Hearings Officer.

Hearings Office Clerk
HearingsOfficeClerks@portlandoregon.gov
503-823-7307

From: Carolyne Holcomb <carolyne@ceic.cc>
Sent: Tuesday, July 9, 2024 8:13 PM
To: Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>; Gulizia, Andrew <Andrew.Gulizia@portlandoregon.gov>
Subject: Testimony for case file LU 23-111784 CU AD

Hearings Office,

Please accept the attached document as testimony for case file LU 23-111784 CU AD. I am also planning to attend the meeting virtually to provide public comment.

Thank you,

_____
Carolyne Holcomb (pronounced Caroline)
Executive Director
Central Eastside Industrial Council | Central Eastside Together
p: 971.801.8230 | e: carolyne@ceic.cc
Don't miss our Coffee Break Series featuring Portland's Mayoral Candidates. Now through August 8—learn more!

central eastside industrial council

July 10, 2024

To: Hearing Officer
From: Carolyne Holcomb, Executive Director, Central Eastside Industrial Council
Subject: Central Eastside Industrial Council expresses support for Central Eastside Music Venue (Case File: LU 23-111784 CU AD)

The Central Eastside Industrial Council (CEIC) proudly represents Portland's Central Eastside Industrial District (CEID), a uniquely planned 700-acre industrial and multiple-use area on the east bank of the Willamette River, just beyond Downtown Portland. Home to over 1,300 businesses and employing more than 22,000 people, the Central Eastside boasts a thriving design, entertainment, and cultural scene. On behalf of the CEIC Board of Directors, we support this land use application for the proposed 3,500-person music venue on SE Water Avenue, strategically located on the vacant workshop blocks adjacent to the Eastbank Esplanade and I-5.

As the District experiences renewed vitality through redevelopment and business growth, the placement of this venue would serve as a catalytic investment for the District, supporting a vibrant, active, and safer area in alignment with Governor Kotek's Central City Task Force recommendations. This venue stands to attract substantial local, regional, and national audiences, expanding not only the Central Eastside's visitor experience but also connecting them to the Downtown Core, Willamette River, and East Portland, presenting an economic and cultural boon for our entire city.

The CEIC endorses this project for the following reasons:

Prosperous Business District: The planned project promises not only to align with OMSI's master plan but to fortify the District's distinctive food, beverage, and retail scene, fostering a more vibrant, prosperous, and harmonious business environment.

Activated Public Spaces: The proposed site abuts a long-vacant property, and its overdue activation is essential to enliven the business community. Recognizing the potential for this transformation, the CEIC believes that the proposed venue will breathe life into this underutilized space and inspire nightlife activity that complements the daytime activities of nearby businesses without disrupting residential areas.

Commitment to Community: The venue underscores the careful consideration of protecting surrounding industrial land uses and highlights CEIC's commitment to participating in and providing input during this process. This includes the partnership between Beam Development and Colas Development Group, which engaged both the CEIC's Land Use and Transportation & Parking Advisory Committees during their preparation of this land use application.

CEIC is enthusiastic about this proposed music venue's positive impact on the Central Eastside and the Portland community. We appreciate your consideration of our endorsement and eagerly await the transformative contributions this project can make to our city's cultural and economic landscape.

Sincerely,

Carolyne Holcomb
Executive Director
Central Eastside Industrial Council (CEIC)

From: Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>
Sent: Tuesday, July 16, 2024 8:08 AM
To: Jon Meyer <jonjamesmeyer@gmail.com>
Subject: Re: LU 23-111784 CU AD

Hello - thank you for your testimony. This email will be included in the file for the Hearings Officer's consideration.

Hearings Office
HearingsOfficeClerks@portlandoregon.gov
503-823-7307

From: Jon Meyer <jonjamesmeyer@gmail.com>
Sent: Sunday, July 14, 2024 5:44 PM
To: Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>
Subject: LU 23-111784 CU AD

I have done a lot of research on this and have concluded that a Live Nation venue would NOT benefit Portland. Not the fans or local musicians. They are part of a monopoly that's ruining live music nationwide, do NOT let this virus into our unique town. I work as a full time musician in Portland.

From: Tori Johnson <tori@kbcmgmt.com>
Sent: Tuesday, July 16, 2024 5:29 PM
To: Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>
Subject: LU 23-111784 CU AD

Hello,

I urge you to consider the potentially disastrous effects of bringing a Live Nation venue to Portland before approving this plan.

Portland's music scene is unique and vibrant, and Live Nation's presence threatens to compromise that. As an active participant in the cities music scene, I fear that this corporate giant will undermine our community and the many beloved venues in our city.

I can assure you that many of my friend who work in the music industry are also opposed to this. If the reasons below are not enough, please consider holding a public hearing and advertising it widely to the music community in Portland before proceeding so you can hear first hand.

Live Nation has been under nationwide scrutiny for its questionable business practices and monopolistic behavior in the music industry. They are known for driving out competition through retaliatory practices, blocking other ticketing platforms, and restricting artists' access to venues, among many other aggressive tactics.

The Justice Department and 30 states have even filed a lawsuit against Live Nation for monopolizing markets across the live concert industry: https://www.justice.gov/opa/pr/justice-department-sues-live-nation-ticketmaster-monopolizing-markets-across-live-concert

Portland has always prided itself on going against the status quo, and bringing a Live Nation venue here will likely reshape our music scene into a generic one that lacks vitality, color, and diversity.

The local non-profit MusicPortland provides an excellent breakdown of why Live Nation is a threat. As they stated, "The Live Nation proposal is analogous to Walmart installing a superstore onto Mississippi Avenue." For more details, please see their analysis: https://www.musicportland.org/policy/live-nation

There is an opportunity to put a new venue into local hands, managed by those who are genuinely invested in the city and its culture, not just profit.

Please consider the numerous negative impacts that this decision will have on our vibrant music community before proceeding. While substantial financial incentives may be offered, the long-term effects will be severely detrimental. It will shutter the doors of beloved local venues and put many local musicians and venue workers out of a job.

Thank you for your consideration.

TORI JOHNSON (She/Her)
OFFICE MANAGER

KBC MANAGEMENT, INC.

2107 NW 23RD AVE | PORTLAND, OR 97210
O. 503-227-0305 EXT 15 | F. 503-241-9862
KBCMGMT.COM

From: Tom Liptan <tliptan@msn.com>
Sent: Wednesday, July 17, 2024 12:16 PM
To: Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>
Subject: LU 111784 CU AD

Attached are comments

Date: July 15, 2024
To: Code Hearings Officer
From: GRIT (Greenroof Information Think Tank)
Re: Partial opposition to adjustments for proposed Central Eastside Venue (Live Nation)
LU 111784 CU AD)

The adjustment requested because of the structural design should be denied.
The applicant contends that the building structure will not allow for an ecoroof to meet the zoning code minimum. There are examples of buildings that have designed their structures to hold ecoroofs. See examples below. The structural design can be done to meet the applicant's internal building requirements.

Soka Performing Arts Center Aliso Viejo, California
The ecoroof and PV panels were installed on this building in 2014 and designed by the LA office of Portland architectural firm ZGF Architects.

Lang Performing Arts Center Swarthmore, Pennsylvania
The ecoroof was installed on this building in 2015.

It is clear that performing arts, concert/theater style buildings and even convention centers can be and have been built with ecoroofs at no sacrifice to the interior uses. We encourage the applicant to consider ecoroofing the entire building including the 25% sloped roof. This would

meet the stormwater requirements and eliminate their need for that stormwater planter. It would also provide an exciting green feature in the neighborhood and for thousands of motorists and potential customers on I-5. Other buildings with ecoroofs and wide clear span requirements include California Academy of Sciences San Francisco, Blackhawks Training Facility Chicago, Seattle Zoomazium, Barclay Center NYC, Brooklyn Steel NYC, Target Stadium Minneapolis, Vancouver BC Convention Center, Music City Center Nashville Tenn. And at a smaller scale Reed College Performing Arts Center, Portland.

The TPO roof does not meet or mitigate the Ecoroof standard
The planning bureau and the applicant have made the comment that the goals of the code will be met with the proposal. The TPO roofing will not mitigate for the loss of the ecoroof, nor will it mitigate noise, nor insulate the building, nor provide food and habitat for wildlife, nor sequester carbon, nor produce oxygen, nor extend the life of the roof by 2-3 decades thus reducing costs and waste.

The appearance standard has not been met.
The proposed white TPO roof does not meet the code requirement for aesthetics. It will be a glaring eyesore to motorists on I-5 and possibly a hazard at certain times. Although it is called a cool roof the name is misleading because it actually gets hot, but not as hot as a black roof. Ecoroofs are the coolest of all roofing options and thus prevent urban heat island impacts rather than merely reduce them.

The stormwater planter does not meet the Ecoroof standard but we recommend that the applicant be allowed to include it in the ecoroof coverage calculation. Stormwater planters provide many benefits but they don't insulate the building, nor do they manage stormwater as efficiently as ecoroofs. If the applicant decides to go for the entire ecoroof then the planter is not needed and that space would be ecoroof.

The public services standard for stormwater management has not been met.
To comply with the intent of the zoning code the applicant should design and construct stormwater facilities, not pay an in lieu fee to get out of it. If this project is successful, it will mean pollutant increases of orders-of-magnitude above today's pollutant levels discharging into the Willamette River where people are now finally able to swim, after 100 years. The fact that pollutants will increase is part of development and a vibrant city, and that is why BES has requirements to physically clean the stormwater before discharging into the river. There are numerous opportunities to construct stormwater facilities and to partner with several entities. This can be done without impairing the applicant's use of the site and surroundings.

Thank you for your consideration of these comments.

Respectfully submitted,
Tom Liptan on behalf of GRIT
7707 SE Madison St
Portland, Or 97215

From: Ronnie Carrier <ronniecarriermusic@gmail.com>
Sent: Wednesday, July 17, 2024 2:22 PM
To: Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>
Subject: Re: LU 23-111784 CU AD (Public comment)

Thank you for this information.

I've attached the three documents referenced in the complaint.

I would also like to add that The State of Oregon is one of the 30 states filing a lawsuit against Live Nation right now

Best,

On Tue, Jul 16, 2024 at 3:04 PM Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov> wrote:

> Hello! Thank you for your written testimony.
>
> This email testimony will be uploaded to the case file for the Hearings Officer's consideration. Your contact information will be added to the mailing list so you will receive a copy of the decision.
>
> However, the City prohibits clicking on unsolicited links. If you would like the Hearings Officer to consider the information in the links you must submit it in a different format (example, download the information as a PDF and submit it).
>
> Best,
>
> Hearings Office
> HearingsOfficeClerks@portlandoregon.gov
> 503-823-7307
>
> ---
>
> **From:** Ronnie Carrier <ronniecarriermusic@gmail.com>
> **Sent:** Tuesday, July 16, 2024 2:27 PM
> **To:** Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>
> **Subject:** LU 23-111784 CU AD (Public comment)

Hello,

I urge you to consider the potentially disastrous effects of bringing a Live Nation venue to Portland before approving this plan.

Portland's music scene is unique and vibrant, and Live Nation's presence threatens to compromise that. As a musician and an employee of two non-profit venues in the city, I fear that this corporate giant will undermine our community and the many beloved venues in our city.

I can assure you that many of my colleagues in the industry are also opposed to this. If the reasons below are not enough, please consider holding a public hearing and advertising it widely to the music community in Portland before proceeding so you can hear first hand.

Live Nation has been under nationwide scrutiny for its questionable business practices and monopolistic behavior in the music industry. They are known for driving out competition through retaliatory practices, blocking other ticketing platforms, and restricting artists' access to venues, among many other aggressive tactics.

The Justice Department and 30 states have even filed a lawsuit against Live Nation for monopolizing markets across the live concert industry: https://www.justice.gov/opa/pr/justice-department-sues-live-nation-ticketmaster-monopolizing-markets-across-live-concert

Portland has always prided itself on going against the status quo, and bringing a Live Nation venue here will likely reshape our music scene into a generic one that lacks vitality, color, and diversity.

The local non-profit MusicPortland provides an excellent breakdown of why Live Nation is a threat. As they stated, "The Live Nation proposal is analogous to Walmart installing a superstore onto Mississippi Avenue." For more details, please see their analysis: https://www.musicportland.org/policy/live-nation

There is an opportunity to put a new venue into local hands, managed by those who are genuinely invested in the city and its culture, not just profit.

Please consider the numerous negative impacts that this decision will have on our vibrant music community before proceeding. While substantial financial incentives may be offered, the long-term effects will be severely detrimental. It will shutter the doors of beloved local venues and put many local musicians and venue workers out of a job.

Thank you for your consideration.

--
Ronnie Carrier
Official Website

--
Ronnie Carrier
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Live Nation-Ticketmaster's Exclusionary Conduct and Dominance Across the Live Concert Ecosystem Harms Fans, Innovation, Artists, and Venues

The Justice Department, along with 30 state and district attorneys general, filed a civil antitrust lawsuit against Live Nation Entertainment Inc. and its wholly-owned subsidiary, Ticketmaster LLC (Live Nation-Ticketmaster) for monopolization and other unlawful conduct that thwarts competition in markets across the live entertainment industry. The lawsuit, which includes a request for structural relief, seeks to restore competition in the live concert industry, provide better choices at lower prices for fans, and open venue doors for working musicians and other performance artists.

The complaint, filed today in the U.S. District Court for the Southern District of New York, alleges that Live Nation-Ticketmaster unlawfully exercises its monopoly power in violation of Section 2 of the Sherman Act. As a result of its conduct, music fans in the United States are deprived of ticketing innovation and forced to use outdated technology while paying more for tickets than fans in other countries. At the same time, Live Nation-Ticketmaster exercises its power over performers, venues, and independent promoters in ways that harm competition. Live Nation-Ticketmaster also imposes barriers to competition that limit the entry and expansion of its rivals.

"We allege that Live Nation relies on unlawful, anticompetitive conduct to exercise its monopolistic control over the live events industry in the United States at the cost of fans, artists, smaller promoters, and venue operators," said Attorney General Merrick B. Garland. "The result is that fans pay more in fees, artists have fewer opportunities to play concerts, smaller promoters get squeezed out, and venues have fewer real choices for ticketing services. It is time to break up Live Nation-Ticketmaster."

"Today's announcement reflects the latest efforts by the Justice Department to combat corporate misconduct," said Deputy Attorney General Lisa Monaco. "Our fight against corporate wrongdoing includes an intense focus on anticompetitive conduct — which disadvantages consumers, workers, and businesses of all kinds. Today's complaint alleges that Live Nation-Ticketmaster have engaged in anticompetitive conduct to cement

their dominance of the live concert market and act as the gatekeeper for an entire industry. Today's action is a step forward in making this era of live music more accessible for the fans, the artists, and the industry that supports them."

"The Department is committed to competition throughout the economy, including in live music," said Acting Associate Attorney General Benjamin C. Mizer. "As our complaint alleges, Live Nation-Ticketmaster monopolizes the markets for concerts and other live events at the expense of fans, venues, and artists across the country. The Department is proud to bring this case to restore competition to this industry."

"The live music industry in America is broken because Live Nation-Ticketmaster has an illegal monopoly," said Assistant Attorney General Jonathan Kanter of the Justice Department's Antitrust Division. "Our antitrust lawsuit seeks to break up Live Nation-Ticketmaster's monopoly and restore competition for the benefit of fans and artists."

According to the complaint, Live Nation-Ticketmaster has unlawfully maintained monopolies in several concert promotions and primary ticketing markets and engaged in other exclusionary conduct affecting live concert venues, including arenas and amphitheaters. The complaint further alleges that Live Nation-Ticketmaster's exclusionary practices fortify and protect what it refers to as its "flywheel." The flywheel is Live Nation-Ticketmaster's self-reinforcing business model that captures fees and revenue from concert fans and sponsorship, uses that revenue to lock up artists to exclusive promotion deals, and then uses its powerful cache of live content to sign venues into long term exclusive ticketing deals, thereby starting the cycle all over again. Live Nation-Ticketmaster's anticompetitive conduct creates even more barriers for rivals to compete on the merits. Specifically, Live Nation-Ticketmaster engaged in a variety of tactics to eliminate competition and monopolize markets:

> *Relationship with Oak View Group: Live Nation-Ticketmaster exploits its longtime relationship with Oak View Group, a potential competitor-turned-partner that has described itself as a "hammer" and "protect[or]" for Live Nation. In recent years,*

Oak View Group has avoided bidding against Live Nation for artist talent and influenced venues to sign exclusive agreements with Ticketmaster. For example, Live Nation has scolded Oak View Group multiple times for trying to compete. In one instance, Live Nation asked, "who would be so stupid to . . . play into [an artist agent's] arms," and on another occasion, Live Nation stated, "let's make sure we don't let [the artist agency] now start playing us off."

Retaliating Against Potential Entrants: Live Nation-Ticketmaster successfully threatened financial retaliation against a firm unless it stopped one of its subsidiaries from competing to gain a foothold in the U.S. concert promotions market.

Threatening and Retaliating Against Venues that Work with Rivals: Live Nation-Ticketmaster's power in concert promotions means that every live concert venue knows choosing another promoter or ticketer comes with a risk of drawing an adverse reaction from Live Nation-Ticketmaster that would result in losing concerts, revenue, and fans.

Locking Out Competition with Exclusionary Contracts: Live Nation-Ticketmaster locks concert venues into long-term exclusive contracts so that venues cannot consider or choose rival ticketers or switch to better or more cost-effective ticketing technology. These contracts allow Live Nation-Ticketmaster to reduce competitive pressure to improve its own ticketing technology and customer service.

Blocking Venues from Using Multiple Ticketers: Live Nation-Ticketmaster's conduct and exclusive contracts prevent new and different promotions and ticketing competitors and business models from emerging. They block venues from being able to use multiple ticketers, who would compete by offering the best mix of prices, fees, quality, and innovation to fans.

Restricting Artists' Access to Venues: Live Nation-Ticketmaster has increasingly gained control of key venues, including amphitheaters, through acquisitions, partnerships, and agreements. Live Nation-Ticketmaster restricts artists' use of those venues unless those artists also agree to use their promotion services.

Acquiring Competitors and Competitive Threats: Live Nation-Ticketmaster strategically acquired a number of smaller and regional promoters that it had internally identified as threats. This has undermined competition and impacted artist compensation.

Live Nation Entertainment Inc. is a Delaware corporation headquartered in Beverly Hills, California. It describes itself as the "largest live entertainment company in the world," the "largest producer of live music concerts in the world," and "the world's leading live entertainment ticketing sales and marketing company." Live Nation also owns or controls more than 265 concert venues in North America, including more than 60 of the top 100 amphitheaters in the United States. It generates over $22 billion globally in annual revenue from three business segments: concerts (e.g., promotions, venue management, and music festival production), ticketing (e.g., Ticketmaster business), and sponsorship and advertising.

Ticketmaster LLC is a wholly owned subsidiary of Live Nation. It is a Virginia limited liability company with headquarters in Beverly Hills. Ticketmaster sells concert tickets to fans when those tickets first go on sale and operates resale platforms that enable purchasers to resell those tickets at a later time. Ticketmaster is by far the largest concert ticketing company in the United States, multiple times the size of its closest competitor.

LIVE NATION IS WRONG FOR PORTLAND

Beam Development recently announced their intention to partner with Live Nation to build a 3,000 capacity music venue as part of the ODOT Blocks redevelopment. This is a Prosper Portland project, and it includes public dollars. While we trust Beam's intentions to include music in their development to be pure, this proposed partnership has the potential to cause far more harm than good to the Portland music scene.

The Live Nation proposal is analogous to Walmart installing a superstore onto Mississippi Avenue. Just as that type of retail would have a chilling effect on small, independent local retailers, so too would Live Nation create the same challenges for our local music culture.

A locally-controlled music venue on this property that is financed by investors who are community stakeholders would be far more healthy for our burgeoning music ecosystem. The local music industry, which includes more than twenty thousand working musicians and numerous independent, locally-controlled venues, has reached a critical juncture due to new, unprecedented collaboration with each other and with local and state government and agencies. This hard work would be gravely compromised by the presence of Live Nation, given its historical business practices that actively work to eliminate local competition.

Live Nation regularly and repeatedly demonstrates anti-competitive[1], monopolistic[2], and predatory practices[3] throughout the country...

Despite negotiated consent decrees related to the merger of Live Nation and Ticketmaster in 2010[4] and 2020[5] (updated after noncompliance), Live Nation is believed to continually and repeatedly violate the decree terms:

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1 https://www.hollywoodreporter.com/business/business-news/live-nation-ticketmaster-class-action-1235070131/

2 https://www.ticketnews.com/2021/09/economist-calls-on-biden-administration-to-break-live-nation-monopoly/

3 https://www.rollingstone.com/music/music-news/live-nation-ticketmaster-sued-again-monopoly-1278598/

4 https://www.justice.gov/atr/case-document/final-judgment-180

5 https://www.justice.gov/opa/pr/justice-department-will-move-significantly-modify-and-extend-consent-decree-live

March, 2019: Senators Klobuchar and Blumenthal call for a DOJ investigation[6] of Live Nation's business practices and reported violations of consent decree.

March, 2022: Senators Klobuchar and Blumenthal again call for DOJ to conduct an investigation[7] based on reports of Live Nation's anti-competitive ticketing practices.

May, 2022: Congressman Bill Pascrell calls for breakup of Live Nation / Ticketmaster merger[8] due to repeated safety violations.

Unfair ticket pricing and refund policies draw lawsuits[9].

Live Nation strives to limit the ability of independent venues to hire many performers by enforcing radius clauses in their contracts that limit their participation/performance in venues other than those controlled by Live Nation[10].

Live Nation seeks to use its events to strongarm[11] venues to use its own ticketing service, Ticketmaster.

Live Nation actively competes with, and attempts to force closure of, local venues throughout the country[12]

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6 https://www.blumenthal.senate.gov/imo/media/doc/DOJ%20Ticketmaster-Live%20Nation%20Letter.pdf

7 https://www.blumenthal.senate.gov/newsroom/press/release/blumenthal-and-klobuchar-urge-doj-action-to-restore-co mpetition-in-the-concert_live-entertainment-market

8 https://pascrell.house.gov/news/documentsingle.aspx?DocumentID=5064

9 https://completemusicupdate.com/article/live-nation-and-ticketmaster-argue-another-lawsuit-should-go-to-arbitration-n ot-least-because-its-new-arbitrator-is-better/

10 https://www.google.com/url?q=https://liveforlivemusic.com/news/coachella-radius-clause-lawsuit-move-forward-orego n-district-court/&sa=D&source=docs&ust=1657866183185723&usg=AOvVaw04B3RUUg7RQZ5RlzY1am47

11 https://www.reuters.com/article/live-nation-justice-department/u-s-doj-preparing-legal-action-against-live-nation-for-tic keting-tactics-wsj-idUSL4N28N3T6

12 https://blockclubchicago.org/2021/11/30/live-nation-wont-open-a-venue-in-lincoln-yards-ald-hopkins-says-but-critics-w ant-mega-development-out-of-his-ward/

Live Nation's Biggest Investor, The Kingdom of Saudi Arabia, is highly controversial.

The Kingdom of Saudi Arabia, Live Nation's biggest investor[13], is widely accused of human rights abuses, including the murder of journalist Jamal Khashoggi and the failure to hold Abdulrahman Sameer Noorah accountable for running over and killing Portland student Fallon Smart[14].

It is believed that Saudi Arabia is "sports washing" and "influencer washing" its atrocities with substantial investments in golf and entertainment.

Statement by local promoter and venue owner David Leiken:

> "The Saudis own $1 billion dollars worth of Live Nation stock, over 5 percent of the company and I understand they have the right to make further investment at a discounted rate. In view of the recent controversy over the LIV golf event held recently in Portland and in view of comments by local politicians such as Sen Wyden and others it would be highly inappropriate for the City of Portland to make loans at a discounted rate to Live Nation. Further they have doggedly held on to billions of dollars of public money in the form of tickets to delayed, postponed, and canceled shows during the pandemic. Ticketmaster has been unresponsive and uncooperative in making ticket refunds all over the country. The public has been stonewalled, lied to, in this regard to the point where most ticket holders have simply given up trying to get their money back. The City of Portland has no business subsidizing the Saudi investment or sanctioning what seems to be the unethical behavior of Ticketmaster and Live Nation. The taxpayers of our community deserve better. There may well be a better, and yes, local, alternative that certainly deserves public funding more than Live Nation/Ticketmaster. Sincerely, David Leiken"

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13 https://www.digitalmusicnews.com/2021/02/17/live-nation-saudi-arabia-investment/

14 https://www.oregonlive.com/news/erry-2018/12/9b5b1eff724150/he-was-accused-of-killing-a-po.html

Portland's music scene needs MORE support for its thriving, independent venues without attracting the ongoing problems Live Nation brings to the mix:

Portland's music ecosystem is considered unique on the national front for being locally curated and controlled. Live Nation has been trying to insert themselves into this ecology for a long time due to our national reputation for having a rich and quirkily independent culture. We shouldn't allow Live Nation to insert itself into the scene and then sell our culture back to us at a heavy markup.

As of 2019, MusicPortland has identified 330 spaces that host live music three or more times per week. Numerous other secondary venues host regular music programs on a weekly basis. Our residents and tourists are already heavily invested in our rich music culture.

There is no current local consensus on the need for a 3000 capacity room. Live Nation claims there is a "desperate need" for a 3000 cap standing venue, but to cede that control to them would be wholly counterproductive for the music scene. The late Commissioner Nick Fish believed that the ODOT lot could make a good live music venue and cited a need for a 3000 cap room, but those policy discussions centered on developing this public asset with **local control, local investors and local management**. People who were involved in those discussions can confirm that it was not meant to buoy up a giant corporate outsider to extract value under most favorable terms from public land.

As of 2019, MusicPortland has identified at least 20,000 working musicians (recording and performing).

Portland's local venues are not able to speak up publicly against Live Nation due to fears of retaliation. Many venues currently host some events with Live Nation and//or Ticketmaster.

Portland's reputation as a tastemaker and curator has evolved a music culture with more non-corporate venues than almost any other US city. Our engaged music fans support these venues, and by extension, our independent media (two independent news outlets and five independent radio stations) who all commit a significant part of their editorial and advertising to reviewing music, and by promoting venues and upcoming shows.

CALL TO ACTION:

This is an imminent threat to our local music ecology that only in the past few years has come to be valued by the city leadership, tourism agencies, and the private sector as unique and valuable for its economic and cultural importance to the

community. Let's discuss this Live Nation situation ASAP. We would like to schedule brief (30 minute) Zoom meetings with each of you to answer questions and confirm your position on this topic.
Please reach out to Meara McLaughlin at Meara@musicPortland.org to schedule.
Thank you for your time and attention to this important issue.
This document was created by MusicPortland and delivered to policymakers on 7/15/2022

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SOUTHERN DISTRICT OF NEW YORK

UNITED STATES OF AMERICA
U.S. Department of Justice, Antitrust Division
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STATE OF CALIFORNIA
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DISTRICT OF COLUMBIA
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COMPLAINT

1:24–cv–3973

JURY TRIAL DEMANDED

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Capitol Complex
Building 6, Suite 401
Charleston, WV 25305

STATE OF WISCONSIN
P.O. Box 7857
Madison, Wisconsin 53707

and

STATE OF WYOMING
109 State Capitol
Cheyenne, WY 82002,

Plaintiffs,

v.

LIVE NATION ENTERTAINMENT, INC.
9348 Civic Center Drive
Beverly Hills, CA 90210

and

TICKETMASTER L.L.C.
9348 Civic Center Drive
Beverly Hills, CA 90210,

Defendants.

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I. Introduction

1. One monopolist serves as the gatekeeper for the delivery of nearly all live music in America today: Live Nation, including its wholly owned subsidiary Ticketmaster. In Live Nation's words, it is the "largest live entertainment company in the world," the "largest producer of live music concerts in the world," and "the world's leading live entertainment ticketing sales and marketing company." Indeed, Live Nation is all these things, to the detriment of fans, artists, venues, and competition.

2. Today, musical artists must rely on promoters, venues, and ticketers to organize the business of playing live music. These service providers should work to serve the interests of artists and fans. Genuine competition for and among these service providers would generate the best, most cost-effective, and fan-friendly experience. But the world live music fans live in today is far from that.

3. Live Nation directly manages more than 400 musical artists and, in total, controls around 60% of concert promotions at major concert venues across the country. Live Nation also owns or controls more than 265 concert venues in North America, including more than 60 of the top 100 amphitheaters in the United States. For comparison, its closest rival owns no more than a handful of top amphitheaters. And, of course, through Ticketmaster, Live Nation controls roughly 80% or more of major concert venues' primary ticketing for concerts and a growing share of ticket resales in the secondary market.

4. The live music industry, like other heavily concentrated industries, is largely controlled by a well-known group of insiders who lead multiple interconnected companies with numerous conflicts of interest. These insiders have spent decades amassing, fortifying, and exercising power, particularly against anyone who seeks to disrupt the now-standard industry business practices and conduct. These business practices can, and often do, work against the

interests of those with relatively little power and influence, especially working musicians and fans. These insiders often speak to each other, and work together, as allies and partners rather than as vigorous competitors.

5. With this vast scope of power comes influence. Live Nation and its wholly owned subsidiary, Ticketmaster, have used that power and influence to insert themselves at the center and the edges of virtually every aspect of the live music ecosystem. This has given Live Nation and Ticketmaster the opportunity to freeze innovation and bend the industry to their own benefit. While this may be a boon to Live Nation's bottom line, there is a real cost to Americans. As described in detail below, today Live Nation possesses and routinely exercises control over which artists perform on what dates at which venues. Through Ticketmaster, Live Nation also possesses and exercises control over how fans are able to purchase tickets to see their favorite artists in concert and what fees those fans will pay to do so. Artists and fans as well as the countless people and other services that support them suffer from the loss of dynamism and growth that competition would inevitably usher in.

6. As this Complaint describes in detail, through a self-reinforcing "flywheel" that Live Nation-Ticketmaster created to connect their multiple interconnected businesses and interests, Live Nation and Ticketmaster have engaged in numerous forms of anticompetitive conduct. That anticompetitive conduct includes the following:

a. **Relationship with Oak View Group.** Live Nation-Ticketmaster exploits its longtime relationship with Oak View Group, a potential competitor-turned-partner that has described itself as a "hammer" and "protect[or]" for Live Nation. In recent years, Oak View Group has avoided bidding against Live Nation for artist talent and influenced venues to sign exclusive agreements with Ticketmaster. For example, Live Nation has

scolded Oak View Group multiple times for trying to compete. In one instance, Live Nation asked, "who would be so stupid to . . . play into [an artist agent's] arms," and on another occasion, Live Nation stated, "let's make sure we don't let [the artist agency] now start playing us off."

b. **Retaliating Against Potential Entrants.** Live Nation-Ticketmaster successfully threatened financial retaliation against a firm unless it stopped one of its subsidiaries from competing to gain a foothold in the U.S. concert promotions market.

c. **Acquiring Competitors and Competitive Threats.** Live Nation-Ticketmaster strategically acquired a number of smaller and regional promoters that it had internally identified as threats. This has undermined competition and impacted artist compensation.

d. **Threatening and Retaliating Against Venues that Work with Rivals.** Live Nation-Ticketmaster's power in concert promotions means that every live concert venue knows choosing another promoter or ticketer comes with a risk of drawing an adverse reaction from Live Nation-Ticketmaster that would result in losing concerts, revenue, and fans.

e. **Locking Out Competition with Exclusionary Contracts.** Live Nation-Ticketmaster locks concert venues into long-term exclusive contracts so that venues cannot consider or choose rival ticketers or switch to better, more, or cost-effective ticketing technology. These contracts allow Live Nation-Ticketmaster to reduce competitive pressure to improve its own ticketing technology and customer service.

f. **Blocking Venues from Using Multiple Ticketers.** Live Nation-Ticketmaster's conduct and exclusive contracts prevent new and different promotions and

ticketing competitors and business models from emerging. They block venues from being able to use multiple ticketers, who would compete by offering the best mix of prices, fees, quality, and innovation to fans.

g. **Restricting Artists' Access to Venues.** Live Nation-Ticketmaster has increasingly gained control of key venues, including amphitheaters, through acquisitions, partnerships, and agreements. Live Nation-Ticketmaster restricts artists' use of those venues unless those artists also agree to use their promotion services.

h. **Acquiring Competitors and Competitive Threats.** Live Nation-Ticketmaster strategically acquired a number of smaller and regional promoters that it had internally identified as threats. This has undermined competition and impacted artist compensation.

7. Taken individually and considered together, Live Nation's and Ticketmaster's conduct allows them to exploit their conflicts of interest—as a promoter, ticketer, venue owner, and artist manager—across the live music industry and further entrench their dominant positions. Because Live Nation and Ticketmaster control so much of the concert-going experience, would-be rivals must compete at scale across different levels of the concert ecosystem, raising barriers to competition even further and requiring multi-level entry by existing and would-be competitors.

8. The real world, practical costs of Live Nation's strategy are well-known. Public frustration with concert ticket pricing and sales is a constant drumbeat. The fees that must be paid to attend a live concert in America far exceed fees in comparable parts of the world. Any fan who has logged onto Ticketmaster's website to buy a concert ticket knows the feeling of

shock and frustration as the base cost of the ticket increases dramatically with the addition of fees to include:

a. "service" or "convenience" fees,

b. "Platinum" fees,

c. "VIP" fees,

d. "per order" or "handling" fees,

e. "payment processing" fees,

f. "facility" fees, and/or

g. any other fee or tax Ticketmaster collects from the fan, often with a cut of that fee going back to Ticketmaster.

9. Whatever the name of the fee and however the fees are packaged and collected, they are essentially a "Ticketmaster Tax" that ultimately raise the price fans pay.

10. Live Nation's anticompetitive conduct has not only harmed fans in the form of more and higher fees, but also undermines innovation. Competition increases the array and quality of services available and makes it easier for fans to find and see artists they love. Unburdened by competition on the merits, Ticketmaster does not need to invest as much to improve the fan experience.

11. Live Nation and Ticketmaster understand the benefits a more open and competitive ticketing ecosystem would bring to fans and others. For example, in 2022, Ticketmaster evaluated and recognized that a more open, non-exclusive ticketing system—in essence, ending its preferred exclusive primary ticketing relationships—could lead to more competition and threats to its dominance. Instead, Ticketmaster has focused on adding new restrictions to its ticketing systems to force fans to interact with Ticketmaster and thereby

facilitate Ticketmaster's ability to increase the amount of data it collects from fans. This, of course, benefits not only Ticketmaster but also the vast array of related Live Nation businesses and feeds the Live Nation-Ticketmaster flywheel. According to Live Nation's CEO, Ticketmaster "now not only know[s] the person that bought the ticket, but [also] those three people that you are taking to the show, which we [Live Nation] have not known historically." Its data supremacy over rivals has only accelerated.

12. The impact of the diminished incentive to innovate can manifest in real ways. Without competitive pressure to spur investment and innovation, customer service, website and app design, and product quality and stability suffer. These harms are the natural and predictable consequence of an industry suffocating under monopoly.

13. The United States and certain States previously tried to protect what should be a dynamic, thriving industry through a Clayton Act Section 7 case and resulting consent decree in 2010, followed by an amended consent decree in 2020. Notwithstanding the prior case under Section 7 of the Clayton Act, Live Nation and Ticketmaster have violated other antitrust laws, namely the Sherman Act, through additional, different, and more expansive forms of anticompetitive conduct and exclusionary practices.

14. Live Nation's monopoly, and the anticompetitive conduct that protects and maintains its monopoly, strikes a chord precisely because the industry at stake is one that has for generations inspired, entertained, and challenged Americans. Conduct that subverts competition here not only harms the structure of the live music industry and the countless people that work in that industry, but also damages the foundation of creative expression and art that lies at the heart of our personal, social, and political lives.

15. It is often said that music requires little more than "three chords and the truth." In our modern economy, the live music industry requires that plus competition. Restoring competition protects the ability of working artists and fans to meaningfully access, afford, and engage with music and each other. Addressing and stopping anticompetitive conduct is also essential to ensure the vibrancy of live music. The United States and the Attorneys General of Arizona, Arkansas, California, Colorado, Connecticut, the District of Columbia, Florida, Illinois, Maryland, Massachusetts, Michigan, Minnesota, Nevada, New Hampshire, New Jersey, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Virginia, Washington, West Virginia, Wisconsin, and Wyoming hereby seek relief from this Court, including structural relief, to stop the anticompetitive conduct arising from Live Nation's monopoly power.

II. Defendants Live Nation and Ticketmaster

16. According to its 2023 securities filings, Defendant Live Nation Entertainment, Inc. is the "largest live entertainment company in the world," the "largest producer of live music concerts in the world," and "the world's leading live entertainment ticketing sales and marketing company," and it owns, operates, leases, has equity interest in, or has exclusive booking rights for or significant influence over 373 venues globally and more than 265 in North America. This includes more than 60 of the top 100 amphitheaters in the United States that Live Nation either owns or controls through long-term leases or for which it has the exclusive right to determine who performs at the venue. Control over a venue not only confers on Live Nation the ability to dictate whether fans can see a particular artist they love, but in many cases also provides Live Nation control over many aspects of the concert experience and a host of additional revenue streams ranging from sponsorships to food and beverage sales.

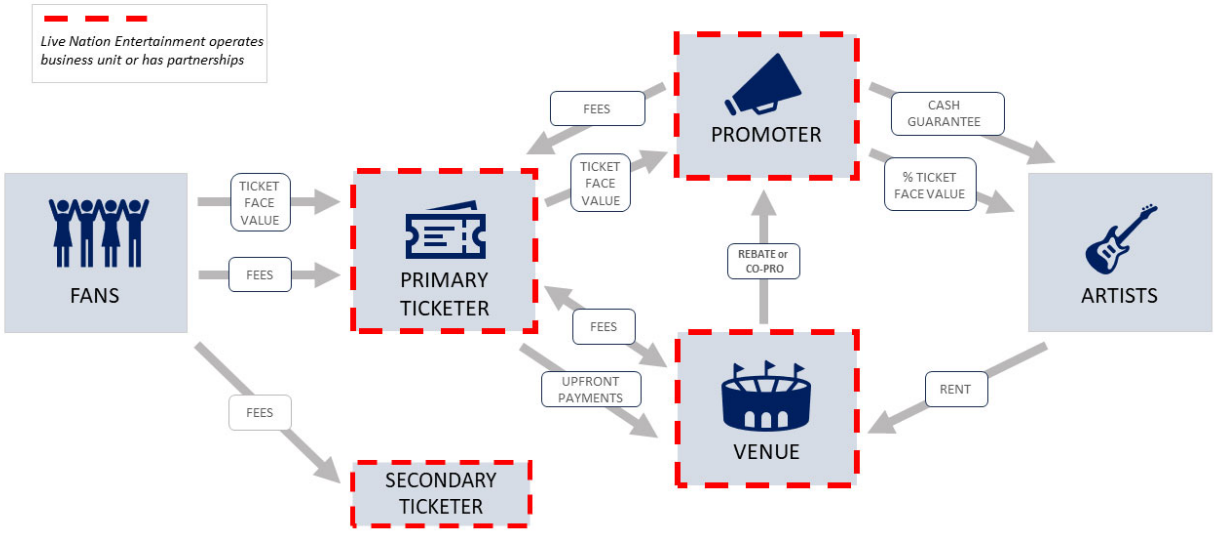
17. Live Nation's business brings in over $22 billion dollars in revenue a year globally. Live Nation divides its business into three segments: Concerts (e.g., promotions, venue management, and music festival production), Ticketing (e.g., Ticketmaster business), and Sponsorship and Advertising. In 2023, Live Nation generated $18.8 billion in Concerts revenue, $2.9 billion for Ticketing, and $1.1 billion for Sponsorship & Advertising.

18. Defendant Ticketmaster L.L.C. is a wholly owned subsidiary of Live Nation (collectively referred to as "Live Nation" herein). Ticketmaster provides primary and secondary ticketing services, which are responsible, respectively, for selling tickets to fans in the first instance for a show and allowing fans to resell those tickets at a later time. Ticketmaster is by far the largest concert ticketing company in the United States for major concert venues, at least eight times the size of its closest competitor.

III. Industry Background

A. How Live Concerts Work

19. Today's live music concerts are complex productions involving thousands of choices to bring together artists and their fans on a particular date and time. Staging a single concert at a major concert venue—let alone an entire tour—involves months of preparation and requires the orchestrated support of many intermediaries in multiple roles. Among the decisions that will most impact the overall experience of fans include what venue will host a particular live music experience, who will promote the event, and who will ticket the event.



20. The planning of a concert predictably begins with an **artist**[1] who decides to share her music and the artistic vision for the presentation of that music with the world and, specifically, with her fans. For artists, the decision to perform live and share music in this medium is an important opportunity to publicly display their art, but also to generate and continue to cultivate enduring relationships with their fans who appreciate and patronize that art. The overall experience associated with what music to present and, critically, how to present it, allows artists to express their artistic vision in a way that will resonate with fans. While artists strive to ensure fans at a single show appreciate their art, they also work to cultivate that fan base over the long run. This allows artists to maximize their ability to earn money over the arc of their career as compensation for their creative labor, whether it is through more concerts, the sale of more tickets at larger concerts, or the sale of merchandise and other related products and

[1] As used in this Complaint, "artist" refers to both musicians and comedians, who make similar choices in planning their performances and face similar competitive conditions.

services. As is often publicly reported, the income earned from concerts generally represents a substantial part of artists' compensation for their creative and performance labor.

21. **Managers and/or agents** typically assist artists to achieve these goals. Managers and agents guide artists' professional lives, including touring, and are often compensated based on a share of the artist's revenues or profit streams. Live Nation manages more than 400 artists in the United States, and in that capacity works with artists, along with other industry intermediaries, to shape their tours and price tickets. One of the founders of Oak View Group, a leading venue development company that partners with Live Nation, also owns a company that is a major manager of artists in the United States music industry.

22. In the modern era, once an artist decides to perform a concert or go on tour, the first major decision they must make, alongside their manager or agent, is to contract with one or more **promoters**. Promoters are primarily responsible for arranging the concert or tour and promoting the event to the public. Promoters provide a variety of services, including working with artists and their managers and/or agents to help choose the venue(s) to host the concert or tour and determine ticket prices, promoting the concert to the public, and shouldering the financial risk and potential upside if the show or tour underperforms/overperforms in terms of profitability. Promoters are also generally responsible for facilitating payments to the artist, venue, and other vendors associated with the concert or tour.

23. Artists historically used different promoters for each show in a new city or region of the country. Today, while local promoters may book one or a handful of shows in a local market, touring artists typically use national promoters—principally Live Nation and AEG Presents (a subsidiary of Anschutz Entertainment Group Inc. ("AEG"))—as they can offer a single packaged tour deal. These deals often include a larger, upfront guaranteed payment to the

artist for a national tour with multiple shows across many markets as compared to one-off shows in a single city or region. Through tour deals, national promoters reduce their own risk of not generating enough revenue to cover the artist's guarantee by, in effect, using the profits of successful shows to mitigate the losses of unsuccessful shows within an artist's tour.

24. Live Nation and its much smaller rival (less than half the size, although even that overstates its competitive significance), AEG, are the two largest concert promoters in the United States. Both Live Nation and AEG also separately provide and are compensated for providing primary ticketing services to venues. No other promoter in the United States can rival their venue networks, scale, reach, and connections to compete to promote national tours for major artists on a regular basis.

25. The second major decision an artist—supported by their manager and/or agent—must make is which concert **venues** to use at various stops on a national tour. Concert venues are the physical spaces or facilities that host live music. Venues compete to attract artists to perform at their facility, and artists may choose where to perform based on a variety of characteristics, including the venue's ambiance, capacity, location, and acoustics. Sometimes a venue owner separately contracts with a promoter, like Live Nation, to provide that promoter with financial incentives for booking and promotions services over an extended period of time, which predictably can lead a promoter to steer artists it promotes to perform at the venue. Other times venues provide these incentives on a show-by-show basis.

26. Venue owners can either operate the facility themselves or hire a management company to operate it. Venue operators provide and maintain the facilities where concerts are held and oversee the venue's services, such as concessions, parking, security, and artist merchandising. Venue operators usually charge the artist and their promoter rent to use the

facility to perform a concert, and the venue operator often works directly with the artist in providing related ancillary services, such as the staging and lighting of a show.

27. Most artists start their careers performing at smaller venues like clubs or theaters, which offer limited capacities, but at generally lower costs. These venues allow newer artists to develop and grow a relationship with their fans in more intimate settings before moving on to larger venues as their "draw" of fans increases. As artists grow their fan base, they graduate to larger venues. Major concert venues include large amphitheaters and arenas that are particularly suited to hosting live concerts for popular artists due to their capacity, infrastructure, and amenities. Concerts are a vital source of revenue for these venues.

28. Live Nation owns, operates, or otherwise controls more than 265 venues across North America. For many years, Live Nation has been the single largest—and growing—owner of American clubs and theaters, which gives it the unique ability to capture artists early in their careers. As artists grow their popularity, this early access enhances Live Nation's ability to funnel artists through the vast array of Live Nation products and services in the modern live music ecosystem. Live Nation's control over access to so many popular venues across the country gives it outsized power and control in this industry.

29. Large **amphitheaters**, in particular, are attractive venues for certain popular artists. Amphitheaters are outdoor venues, which allow artists to take advantage of warm weather in the summer months when many artists prefer to tour. Many touring artists like amphitheaters because they generally offer a balance between more seating than clubs and theaters at a more lucrative compensation and more affordable prices for fans, and a more curated and intimate artistic experience than arenas or large festivals. Large amphitheaters are especially attractive to artists who have graduated from clubs and theaters, but are not yet able to fill higher-capacity

arenas on a consistent basis. They also may be attractive to artists who once played in arenas or stadiums but are no longer able to attract the same audience size.

30. Live Nation controls more than 60% of large amphitheaters in the United States. Live Nation owns, operates, or exclusively books at least 40 of the top 50 and 60 of the top 100 amphitheaters in the United States. No other company in the United States owns more than a handful of amphitheaters, even those with an otherwise sizeable portfolio of arenas.

31. Today, almost all major concert venues contract with a **primary ticketer** to handle the sale of tickets. Primary ticketers orchestrate the sale of tickets to fans. In the past, tickets for major concert venues were sold through call centers, retail outlets, and box offices, all of which could be operated or offered by different parties. Today, most tickets are sold through the internet and mobile applications and the most common delivery method is electronic delivery to fans' mobile phones. The vast majority of major concert venues have an exclusive arrangement with a primary ticketer, most often Ticketmaster, who is entitled to manage and sell tickets on behalf of the initial rights holder—for concerts, this is typically the artist—for all events at that venue. The primary ticketer manages ticketing inventory and provides the technology for online ticketing, accounting, payment processing, and other administrative capabilities.

32. Live Nation's subsidiary, Ticketmaster, is the largest primary ticketer in the United States. AEG operates AXS, the second largest primary ticketer in the United States, although it is much smaller than—less than a fifth of the size of—Ticketmaster. Ticketmaster's dominance is especially apparent among major concert venues. In 2022, Ticketmaster's share of primary ticketing for NBA and NHL arenas exceeded 70%, with AXS and SeatGeek trailing. In the past ten years, AXS has not moved a single arena away from Ticketmaster. Live Nation's

conduct, including its financial and commercial relationship with venue manager Oak View Group and the conditioning of access to artists on a venue's selection of primary ticketer, vitiates many venues' ability to select a primary ticketer on the merits of its ticketing service, significantly disadvantaging Live Nation's rivals when they compete for primary ticketing contracts.

33. In light of existing market dynamics and Live Nation's conduct, it has been and remains rare for venues in the United States to be "open," which would mean that the dynamism of competition would decide what primary ticketer wins the contract for a particular concert at a particular venue. Instead, primary ticketers, notably Ticketmaster, typically contract to be the exclusive ticketer for a major concert venue for a period of many years, offering venues up-front payments in the form of signing bonuses and sponsorships. Indeed, Ticketmaster's exclusive contracts cover more than 60% of ticket sales to major concert venues and more than 75% of concert ticket sales to major concert venues. These exclusive agreements contractually bar any option of having more than one ticketing company offering differentiated services to fans at such venues for a single show or even across shows, with very limited exceptions. This model that locks in the certainty of exclusivity over the dynamism of open competition is an intentional business strategy found in the Ticketmaster-dominated primary ticketing market in the United States, but does not burden competition for such services in many other parts of the world not dominated by Ticketmaster.

34. In other countries, many venues are "open." For instance, in France, concert tickets are often held in a central inventory management system that is accessible by multiple ticketing companies. And in the United Kingdom, a promoter often allocates bundles of tickets to multiple ticketing providers. No matter the form it takes, an "open" system means that artists,

whose incentives for a lower-cost, higher-quality concert experience are more closely aligned with fans, are more likely to play a role in choosing the ticketing company of their choice.

35. In addition to the primary ticketer, fans can buy tickets through a **secondary ticketing platform**, where individual ticket holders, season ticket holders, or businesses can re-sell tickets to other fans. Secondary ticketing platforms earn revenue through fees paid by the seller of the ticket and, usually, fees paid by the buyer of the ticket as well.

36. Ticketmaster's ticketing agreements with a venue sometimes entitle Ticketmaster to control secondary ticketing services in addition to primary ticketing services. Ticketmaster's overall share of resale tickets in North America has grown rapidly since 2019, accounting for nearly one third of ticket resales in 2022. Ticketmaster's rapid increase in secondary market share coincided with its launch of SafeTix technology in or about 2019. SafeTix technology requires that all transfers occur within the Ticketmaster platform. This technology makes it harder for fans to use rivals' secondary ticketing platforms to resell tickets, pushing them instead to the Ticketmaster resale platform.

B. Money Flows Across the Live Entertainment Industry

37. Today, artists who perform at a live concert must navigate a complex web of contracts, business relationships, and money flows across numerous intermediaries and participants. These arrangements often result in fees and charges being split among various industry participants in ways that are not always visible to artists, let alone to fans. Importantly, many of these contracts are interdependent, such that increases to one incentivize or directly influence increases in other areas. And at times, the convoluted web of agreements results in one entity paying on behalf of another, only to then recoup portions of those funds for its own benefit.

38. Today, **fans** pay more in fees associated with live music concert tickets in America than other parts of the world.

39. An intermediary, like Live Nation, makes money through a series of interconnected agreements it enters into with artists, venues, rival promoters, and fans by virtue of the many "hats" it wears across the industry. Through these agreements, Live Nation has constructed a live entertainment ecosystem in which Live Nation can not only extract revenues at every stage as an intermediary, but on many occasions, also double-dip across multiple business lines—for example, as both a ticketer and a promoter—creating a feedback loop that inflates its fees and revenue, all at the expense of fans.

40. **Promoters** like Live Nation generate revenue primarily through a pre-agreed split of the gross ticket sales of a show or tour with the **artist** as well as through payments made by **venues** to incentivize the promoter to route its artists to perform at a particular venue.

41. When trying to secure the right to promote an artist's tour, a promoter and artist often negotiate over the artist's guaranteed payment and the profit split of certain additional concert revenues. For example, Live Nation typically pays an artist the higher of either (1) a percentage of the gross ticket sales less expenses or (2) the artist's guaranteed payment. Guaranteed payments are typically based on the number of performances in the tour, length of the promotion contract, and projected ticket sales, while the percentage of the gross ticket sales less expenses is a set percentage. Live Nation will also enter into some multi-tour deals where the artist will earn even larger cash advances today in exchange for the right to promote the artist exclusively for a certain number of performances or a specific amount of time. While Live Nation sweetens the upfront incentives for certain artists by offering these larger cash advances, they extract recompense in other parts of the ecosystem by, for example, routing their promoted

artists through Live Nation's owned and controlled venues or venues exclusively ticketed by Ticketmaster. For other artists, Live Nation typically conditions use of its owned or controlled venues (especially large amphitheaters) on an artist signing with Live Nation as promoter.

42. In addition to contracting with artists for promotion services, Live Nation, as a **promoter**, also frequently and separately contracts with **venues** to provide booking and promotions services, in exchange for a cut of the venue's revenues associated with the shows it brings to the venue and, occasionally, even a cut from shows that rival promoters bring to the venue. These agreements can come in a variety of forms and are known as "rebate deals," "co-promotion deals," or "drawbacks." These revenues generally are not added to the pool of money Live Nation splits with artists. In fact, some of these payments functionally remit money back to Live Nation that Live Nation initially paid to venues on behalf of its artists (e.g., facility rental fee rebates). These deals—through which Live Nation can essentially claw back a show's expenditures—reflect Live Nation's power over venues, derived from its influence over artists' decisions about what venues to play and when. Over the past few years, Live Nation has continued to increase its concert promotions fees imposed on venues, which are passed through to fans.

43. Ticketmaster, as **primary ticketer**, collects both the face value of the ticket as well as a host of fees tacked on top of the face value ("primary ticketing fees"). Ticketmaster, owned by Live Nation, retains a portion of the fees. The remaining fees are remitted to other intermediaries like the venue and promoter, which are often Live Nation-owned entities, amounting to paying several of these fees (or portions thereof) to itself.

44. **"Ticketing" Fees.** Americans are well-acquainted with the numerous and different fees appended to the cost of a single ticket to attend a concert today. The numerous fees

that are added on top of each other—often with little visibility offered to the fan buying the ticket—contribute to Live Nation's nearly 40% adjusted operating margin in 2023 for its global ticketing business. In addition to charging those fees, Ticketmaster often offers consumers the ability to purchase ticket insurance and "upsells" (such as the option to add parking) at checkout, and it retains a "cut" of these revenues as well. The fees can include, for example:

- *"Service" or "Convenience" Fees*. Service fees, sometimes called convenience fees, are negotiated between the venue and the ticketer and can be set in a variety of ways. Sometimes the ticketer will receive an agreed-upon dollar amount and/or an agreed-upon percentage of the service fee. Alternatively, the venue and ticketer might agree in advance as to the actual fee that the fan will pay for any event and how to split that. Sometimes, the ticketer will receive a fee based on the face value of the ticket. Under any of those models, the ultimate fee that the consumer pays results from the negotiation between the ticketer and the venue. Generally, under these models, the higher the ticket price, the higher the ticketing fee. As a result, the fee has no meaningful relation to the actual cost of providing the ticketing service, which would not vary ticket by ticket or show by show.
- "*Platinum" and "Pricemaster" Fees*. Not all primary tickets, however, are subject to the typical "service" fees. Ticketmaster has two dynamic pricing tools, Platinum and Pricemaster. For tickets that are dynamically priced by Ticketmaster, consumers often pay higher ticketing fees. Ticketmaster additionally receives an "inside fee" from the promoter amounting to a double dip by Ticketmaster.

- *"Per Order" (or "Handling") Fees*, which are additional ticketing service fees charged on top of each order, separate and apart from the ticketing fees embedded in the service charge. These are often split between the ticketer and the venue.
- *"Payment Processing" Fees*, which are additional fees charged on certain transactions for processing the electronic payment inherently necessary to purchase any electronically delivered ticket.
- *"Facility" Fees*, which are fees charged by some venues and typically remitted in full to the venue.

Although venues retain some proportion of ticketing fees described above, a significant proportion of the venue's share is often passed onto promoters, like Live Nation, to incentivize them to steer content to their venue.

45. The face values of tickets are typically set or approved by artists, although promoters' offers also influence face values. Artists, in consultation with their manager and the promoter (either or both of which might be Live Nation employees), can also decide to enable dynamic pricing through Ticketmaster's two dynamic pricing tools, Pricemaster and Platinum, which allow face values to increase based upon the level of demand for a given concert. Promoters and venues use Ticketmaster's Pricemaster tool for "bulk" dynamic pricing of groups of seats, while Platinum tickets, on the other hand, are used to dynamically price at the seat level. For tickets that are dynamically priced by Ticketmaster, whether as bulk or at the seat level, consumers often pay much higher face values. Ticketmaster has a pricing team that makes pricing recommendations—including recommendations as to average and minimum face value of tickets. And typically, it is Ticketmaster's own pricing team that adjusts the face value of tickets based on demand for a particular show.

46. **Venues** earn revenue by renting their facilities to the artist and promoter, selling food, beverages, and merchandise to patrons, collecting ticketing and parking fees, and—sometimes—by sharing in the profit from concerts through co-promotion agreements with promoters such as Live Nation. When venues set aspects of ticket fees, they must not only account for their own operating costs, but also ensure the fees are sufficient to cover all the payments the venues must make to intermediaries like promoters and ticketers. For example, venues must ensure the additional ticket fees cover the fee charged by the primary ticketing service (generally Ticketmaster) and offset the various payments they must make to the promoter (often Live Nation). Because of the interrelated nature of contracts in the industry, money often flows in multiple directions to and from various intermediaries, sometimes in both directions for a single show.

47. Live Nation tells the public that the service fees are decided by the venue. While it is nominally true that "[t]he venue decides on the service fees," in reality, these decisions are predicated upon the portion of those fees that Live Nation (via Ticketmaster) will retain in the first instance—an amount Live Nation negotiates with each venue in advance of the venue setting the amount of the fee. This arrangement is consistent with the many other fees extracted at various stages; those fees may superficially be set by a market participant other than Live Nation or Ticketmaster, but Live Nation and Ticketmaster nonetheless have a hand in setting nearly all these fees and often benefit financially from a significant portion of these fees.

48. In other words, Live Nation's various contracts operate together to drive up the overall number and size of fees paid by fans. For example, under many Ticketmaster contracts, when venues increase their own fees to offset Live Nation's concert promotion charges, Ticketmaster is entitled to receive a "ticketing" fee. This double-dip by Live Nation (as

promoter) and Ticketmaster (as ticketer) means venues have to raise fan-paid fees just to offset Live Nation's promotions charges. For example, a venue forced to pay Live Nation a $5 promotions rebate and Ticketmaster a portion of any increased fees would need to raise fees on fans by significantly more than $5 to break even.

49. **Secondary ticketing** providers earn revenue through fees paid by the seller of the ticket and, usually, the buyer of the ticket as well. Ticketmaster provides secondary ticketing services via "TM+" to venues when it provides primary ticketing services to the venue hosting the event. Ticketmaster also sells secondary tickets via its "3PE" tool when it does not provide primary ticketing services to the venue hosting the event.

50. In addition to the fees Live Nation extracts under its ticketing and promotions contracts, Live Nation also generates significant revenues from its **sponsorship and advertising** business. Live Nation takes advantage of its vast network of venues and high volume of tickets to secure substantial sponsorship and advertising revenue—further deepening its pool of profits. It sells signage rights, online advertising, beverage pouring rights, venue-naming rights, and more. Live Nation considers its sponsorship and advertising business to be one of its high-margin businesses.

51. Live Nation is able to extract significant revenues through its sponsorship and advertising business in part by controlling access to fans at performances where advertisers want to reach them. By controlling the vast majority of large amphitheaters in the United States—pushing concerts to venues it owns, operates, and/or exclusively tickets; locking in key artist talent; and growing the massive data trove it has accumulated as a ticketer—Live Nation is able to drive substantial advertising revenue that feeds the rest of its business.

C. Live Nation's "Flywheel"

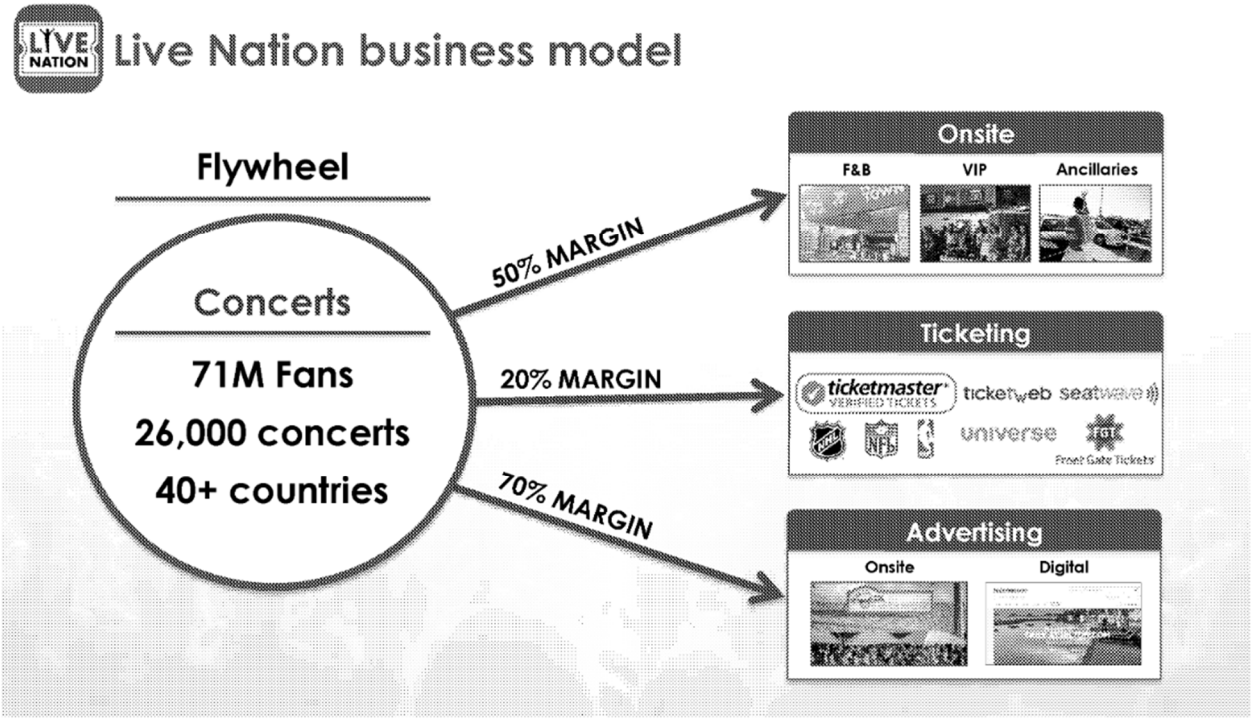
52. Founded in 1996, Live Nation began as a live events promoter. Over the following three decades, Live Nation expanded its reach across nearly the entire live entertainment industry—live events promotions, primary ticketing, secondary ticketing, venue ownership and operations, music festivals, artist management, sponsorships, and more. Live Nation controls wide swaths of live music in the United States because of its multidimensional power.

53. Live Nation uses its concert promotion business—the core of its "flywheel"—to feed its other high margin businesses, including Ticketmaster's ticketing business, Live Nation's network of venues, as well as Live Nation's sponsorship and advertising business.

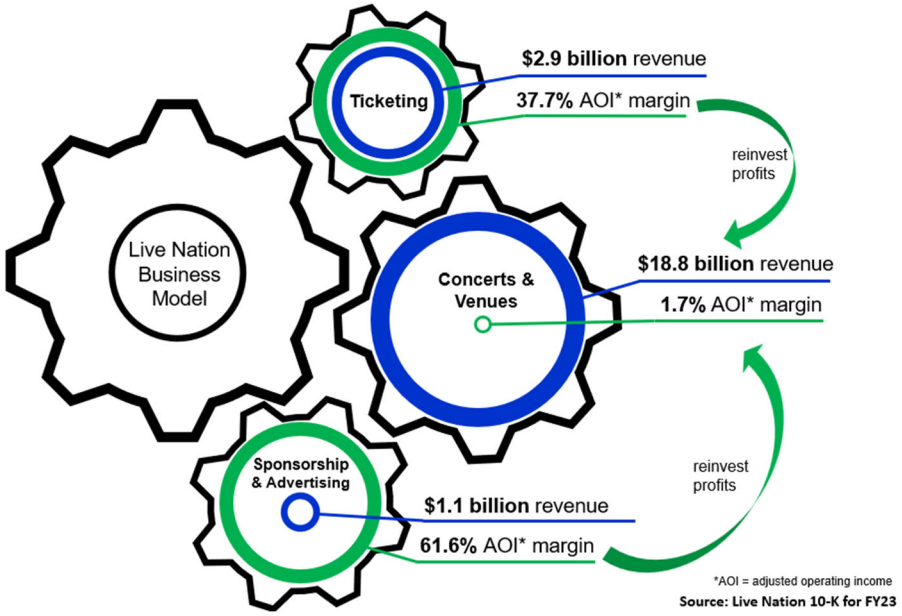
54. As Live Nation's CEO put it, concert promotion is the business that gives the company control over content that feeds Live Nation's three high margin businesses:

> At the core is our flywheel. It's the concert business . . . It's the lower margin part of our business. But in order to get into these three high margin businesses and be competitive, we have to have that scale [in concerts] . . . [Our] leadership position [in concerts] drives the three high margin businesses that are driving our true cash flow and EBITDA.

55. The modified graphic below, based upon Live Nation documents, demonstrates how the flywheel entrenches Live Nation's profits and power.



56. The modified graphic below, based upon Live Nation's public filings, demonstrates how this flywheel generates substantial revenues and profits across Live Nation's businesses.



57. Live Nation wields its power in concert promotions to fuel and drive its primary ticketing business. This presents a Hobson's choice for major concert venues that Live Nation does not already own or otherwise control: either choose Ticketmaster as their exclusive provider of primary ticketing services and benefit from access to Live Nation concerts, or choose a rival ticketing company and risk losing access to Live Nation concerts. Losing access to even a portion of Live Nation's tours can seriously harm venues that rely on highly profitable concerts.

58. Live Nation does not have to threaten individual venues explicitly (although it does) to discourage them from signing ticketing contracts with competitors. The risks are well-known in the industry, and Live Nation's topmost executives remain outspoken that Live Nation likely will steer concerts away from independent venues that do not select Ticketmaster as their ticketer. Live Nation's CEO publicly acknowledged as much in not-so-subtle terms:

> We can't say to a Ticketmaster venue that says they want to use a different ticketing platform, "If you do that, we won't put shows in your building." … [But] **we have to put the show where we make the most economics, and maybe that venue [that wants to use a different ticketing platform] won't be the best economic place anymore because we don't hold the revenue**.

59. The power and profits from Live Nation's high-margin businesses (including Ticketmaster and Sponsorship & Advertising) help keep the flywheel spinning by financially fueling (what may appear on paper to be) Live Nation's less profitable promotions business. Live Nation can do this in a number of ways. For example, for top artists, Live Nation can use profits from other business lines to fund break-even or even unprofitable exclusive promotion contracts on a standalone basis to keep feeding the flywheel. Rival promoters often find themselves unable to match Live Nation's offers to artists because Live Nation can subsidize artist offers with profits from ticketing and other higher margin businesses. (Of course, some of Live Nation's exclusionary conduct also is aimed at weakening or eliminating rivals, and reducing the amount Live Nation needs to bid to win artists' business). At the same time, artists who do not choose

Live Nation to promote their shows or tours can find themselves locked out of Live Nation-owned and controlled venues, including Live Nation's large stable of amphitheaters that are more accessible for fans.

60. Live Nation also uses consumer data—acquired through primary and secondary ticketing sales—to augment its ability to feed its flywheel. As Live Nation's CEO put it: "No one has 80 million customers segmented in a database as rich as ours . . . that audience and that platform is really the key, unique part of our business."

61. As described below, Live Nation's conduct and anticompetitive scheme further creates and enhances barriers for rivals and nascent threats while cementing Live Nation's grip on nearly every corner of this ecosystem. Industry participants recognize that rivals must participate at scale and at multiple points of the concert ecosystem to compete effectively with Live Nation. For example:

- Live Nation's self-reinforcing conduct and power in promotions, ticketing, and venue access disadvantages rivals that do not have a similar portfolio of intertwined assets, increasing barriers for those that do not enter and expand in multiple markets simultaneously.
- Ticketing rivals must invest in and develop ticketing systems robust enough to handle high-demand on-sale events for popular artists, fraud/protection and credit card access for fans, and back-office support. Rival ticketers must also accumulate sufficient data to target, market, and advertise shows to fans, as well as sufficient working capital to secure business, all at a time when there are limited opportunities to even compete to dislodge Ticketmaster's monopoly that is

maintained by long-term, exclusive ticketing contracts and the content threat and thereby recoup this investment.

- Promotions rivals face similar obstacles. They need significant capital to fund tour payments (often millions of dollars), enough scale to hedge against the risk of any single tour failing, extensive relationships with artists, artist managers, agents, and venue operators (and, on the flip side, willingness of those market participants to use a competitor without the fear of retaliation by Live Nation or its surrogates), and enough experience and data from previous tours to make effective routing and pricing recommendations to artists.

D. History of Live Nation and Ticketmaster

62. SFX Entertainment, which later became Live Nation, was founded in 1996 and rapidly began rolling up smaller entertainment companies to consolidate power in concert promotions. That strategy continues today. As Live Nation's current CEO has explained, this strategy of consolidation "from day one" is part of the company's DNA: "we want to continually be the largest promoter in the world, have as many boots on the ground in as many cities and countries in the world as possible . . . ."

63. Ticketmaster, Inc. was founded in 1976 as an independent ticketing company. It has been the largest primary ticketer for major concert venues for decades. Like Live Nation, Ticketmaster initially rose to power in part through a series of acquisitions that consolidated the company's dominant position in primary ticketing. Ticketmaster also expanded and cemented its dominance by pushing through changes to the structure of ticketing contracts that reduced competitive pressures to lower ticketing fees that are ultimately borne by fans.

64. Ticketmaster restructured how ticketing companies get paid for their services. Venues used to pay ticketing service companies to ticket events. But in the early 1980s, Ticketmaster started passing more ticketing costs onto consumers (who effectively have no choice in selecting the ticketer) in the form of fees, and then sharing some of the additional revenue with venues. Second, Ticketmaster began paying venues large upfront advances in exchange for the exclusive, multi-year right to sell and distribute their tickets.

65. On February 10, 2009, Live Nation (then known as Live Nation, Inc.) and Ticketmaster (then known as Ticketmaster Entertainment, Inc.), agreed to merge. At the time, Live Nation was an emerging direct competitor to Ticketmaster in primary ticketing services: after spending nearly two years evaluating, licensing, and developing its own ticketing platform, Live Nation had rapidly become America's second-largest primary ticketer at major concert venues.[2] Alleging the merger would likely substantially lessen competition in the provision and sale of primary ticketing services for major concert venues, the United States and nineteen states[3] filed a case challenging the merger under Section 7 of the Clayton Act, 15 U.S.C. § 18.[4] The parties agreed to a consent decree, entered as a final judgment in the Section 7 case on July 30, 2010, allowing the merger to proceed subject to certain conditions.[5]

[2] Amended Complaint at 5 ¶ 3, 13–14 ¶¶ 34–37, *United States et al. v. Ticketmaster Ent., Inc., et al.*, No. 1:10-cv-00139, Dkt. No. (D.D.C. Jan. 29, 2010), ECF No. 5.

[3] Specifically, the States of Arizona, Arkansas, California, Florida, Illinois, Iowa, Louisiana, Nebraska, Nevada, Ohio, Oregon, Rhode Island, Tennessee, Texas, Wisconsin, New Jersey, and Washington and the Commonwealths of Massachusetts and Pennsylvania. *Id.* at 1.

[4] *Id.* at 17 ¶ 46.

[5] Final Judgment, *United States et al. v. Ticketmaster Ent., Inc., et al.*, No. 1:10-cv-00139 (D.D.C. July 30, 2010), ECF No. 15.

66. In January 2020, the United States filed a motion to modify the consent decree in the Section 7 case.[6] Ticketmaster and Live Nation denied the allegations but ultimately agreed to the United States' and some state co-plaintiffs' proposed amendments to the consent decree.[7] The court entered the amended consent decree as an amended final judgment that, among other things, partially extended the decree's effective date through December 31, 2025.[8] The court then closed the Section 7 case on February 29, 2020.[9] Several of the plaintiff states here were not parties to the 2010 or 2020 decrees.

67. In the years since, Live Nation and Ticketmaster have committed additional, different, and more expansive violations of the antitrust laws compared to the narrower scope of the Section 7 case. As detailed below, Live Nation and Ticketmaster have engaged in ongoing unlawful monopolization of markets across the concert industry in violation of Section 2 of the Sherman Act and state analogues. For example, since 2020, Live Nation and Ticketmaster have unlawfully coopted actual and potential rivals to remove competitive threats and cement Live Nation's and Ticketmaster's dominance of the concert industry. In addition, as also detailed below, Live Nation and Ticketmaster have violated Section 1 of the Sherman Act and state analogues. For example, since 2020, Ticketmaster has entered into long-term exclusive ticketing agreements with venues. The Section 7 consent decree—which addressed a claim different from those at issue here—has failed to restrain Live Nation and Ticketmaster from violating other antitrust laws in increasingly serious ways.

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[6] Motion to Modify Final Judgment and Enter Amended Final Judgment at 4, *United States et al. v. Ticketmaster Ent., Inc., et al.*, No. 1:10-cv-00139, Dkt. No. (D.D.C. January 8, 2020), ECF No. 22.

[7] *Id.* at 2.

[8] Amended Final Judgment, *United States et al. v. Ticketmaster Ent., Inc., et al.*, No. 1:10-cv-00139, Dkt. No. (D.D.C. Jan. 28, 2020), ECF No. 29.

[9] Minute Order, *United States et al. v. Ticketmaster Ent., Inc., et al.*, No. 1:10-cv-00139, Dkt. No. (D.D.C. Feb. 19, 2020).

IV. Live Nation Maintains Monopolies and Market Power Across the Live Concert Ecosystem Through an Anticompetitive and Exclusionary Course of Conduct

68. Live Nation maintains and exercises its power through a coordinated pattern of anticompetitive conduct that serves a variety of ends: expanding its scope and reach into every crevice of an increasingly more complex and interconnected ecosystem, eliminating rivals, continuing to increase barriers to entry, and inhibiting competition on the merits. Each act is exclusionary on its own. But the acts also work together across the ecosystem, enhanced by the flywheel and scale effects, to magnify the anticompetitive force of the scheme.

69. Live Nation's strategy includes several forms of anticompetitive conduct across its various intermediary roles that work in harmony to protect Live Nation's power and keep rivals at bay. For example:

- Live Nation enters into agreements with rivals not only to remove them, but also to cement and expand its dominance.
- Live Nation engages in threats (directly or through intermediaries) and pressure campaigns to nullify rivals or nascent threats.
- Live Nation relies on "carrots and sticks" to induce venues to sign long-term exclusive ticketing contracts that offer durable protection for Ticketmaster's dominance. Venues have seen that if they sign with a Ticketmaster competitor, they risk losing lucrative Live Nation concerts and may suffer other harmful retaliation.
- Live Nation conditions artists' access to its vast and desirable network of amphitheaters and other venues on choosing Live Nation as the promoter, which enables the company to expand its control over artists and third-party venues alike.

- Live Nation removes and neutralizes potential competitors and nascent threats via acquisitions, joint ventures, and other contractual agreements.

A. Oak View Group: Nascent competitor to a self-described "hammer" for Live Nation.

70. Live Nation and Oak View Group have colluded and established a partnership to allocate business lines, avoid competing with each other, and chart a mutually beneficial plan to cement Live Nation's dominance. Oak View Group is a leading American venue development and management company uniquely positioned to compete against Live Nation. Oak View Group has a portfolio of over 200 venues in the United States, including more than 100 venues that it manages but does not own. It was founded in 2015 by two industry giants whose combined résumés include roles as the former CEO of AEG, the former CEO of Ticketmaster, the former chairman of Live Nation, and the owner of The Azoff Company, whose portfolio includes one of the world's leading artist management companies: Full Stop Management.

71. Oak View Group's experience and relationships with venues and artists make it particularly well-suited to be a real competitor to Live Nation in the United States concert promotion business. Oak View Group's ownership structure also gives it a key asset any would-be promotions rival needs to compete against Live Nation: access to capital. In 2018, private equity firm Silver Lake invested $100 million in Oak View Group, in which it now holds a controlling stake.

72. Unsurprisingly, then, Live Nation recognized Oak View Group's promotion capability by categorizing Oak View Group as one of its "Biggest Competitor Threats" shortly after Oak View Group was founded. Over time though, Oak View Group and Live Nation morphed from competitors into partners who found it easier and mutually beneficial to work together rather than compete. Oak View Group now operates as an agent and a self-described

"pimp" and "hammer" for Live Nation, often influencing venues and artists for the benefit of Live Nation. As Oak View Group's CEO recently emphasized to Live Nation's CEO, "[j]ust like I tell our folks we 100% always protect you and LN on your lanes," and "I always protect you on rebates, promotor position, ticketing." The cozy relationship between Live Nation and Oak View Group covers several areas that ultimately impact fans.

73. First, Live Nation and Oak View Group have agreed to a competitive détente in concert promotions to avoid competition between the two companies over artists and tours. In 2016, for example, after learning that Oak View Group offered to promote an artist Live Nation had previously promoted, Live Nation's CEO immediately emailed Oak View Group, warning that such competition would only lead to artists demanding more compensation. He wrote: "whats up? We have done his [touring] and vegas[.] Let's make sure we don't let [the artist agency] now start playing us off." Oak View Group's CEO backed down: "Our guys got a bit ahead. All know we don't promote and we only do tours with Live Nation." Oak View Group's other co-founder followed up: "Growing pains," later noting that Oak View Group's executives "should never discuss comp [for artists]," and Oak View Group's talent buyers would work for Live Nation.

74. This was not a one-off episode. In 2022, Live Nation's CEO again challenged the CEO of Oak View Group after learning that Oak View Group made another direct promotions offer: "who would be so stupid to do this and play into [the artist agent's] arms"? Oak View Group's CEO again backed down: "We have never promoted without you. Won't." Oak View Group's CEO later added that he was "[m]ore than happy to do these deals thru LN as I have always been aligned," and that "I never want to be competitors."

75. As a Senior Vice President at Oak View Group explained to a colleague in 2019 when approached about potentially bidding on a tour: "It has been our policy to stay on the sidelines when it comes to buying and specifically promoting tour dates as we are cognizant not to compete with our partner Live Nation in this side of the business."

76. Second, just as Oak View Group effectively ceded the concert promotions space to Live Nation, Live Nation effectively ceded its arena consulting business to Oak View Group.[10] Shortly after its founding, Oak View Group formed an alliance with venues to provide "insights and access to premier sports and live entertainment content," a venture that encroached on Live Nation's own consulting business, Live Nation Arenas. To relieve this competitive friction, Oak View Group's CEO proposed that Live Nation Arenas combine with Oak View Group and that the head of Live Nation Arenas join Oak View Group's alliance board of advisors, which he did. In his proposal, Oak View Group's CEO warned the head of Live Nation Arenas, "[w]e are experiencing Arena's that want to play us off one another."

77. Live Nation identified three paths forward with regard to Oak View Group: "1) Lead 2) Follow 3) or get out of the way." Live Nation ultimately decided to "get out of the way" in deference to Oak View Group, just as Oak View Group agreed to get out of the way of Live Nation for promotions. In some instances, Live Nation Arenas and Oak View Group decided to partner with one another for agreements with venues, sharing the profits instead of competing for the contracts. The relationship between Live Nation and Oak View Group is so cozy that these venue partnerships were entered into on nothing more than verbal agreements. Through its venue development deals, venue management deals, and venue alliances, Oak View

[10] Arena consulting services are advisory services for venues that may include assistance with booking shows, selecting and working with promotors and ticketers, and getting sponsorship deals.

Group can help direct Live Nation content to venues across the country and demand or influence the use of Ticketmaster at these venues.

78. Third, Live Nation exploits its long-term relationship with Oak View Group to flip venues to Ticketmaster, further cementing Ticketmaster's power. In 2022, Live Nation and Oak View Group entered into a long-term agreement. Since then, Oak View Group has recognized it has a significant financial interest in maintaining existing Ticketmaster contracts at its venues and converting other venues to Ticketmaster. Oak View Group has pushed through these new contracts, subverting the ticketer selection process Oak View Group runs on behalf of its clients. As Oak View Group's CEO explained to Live Nation's CEO, the deal "allows us to tie up all Owned and Operated facilities to 10 year deals, develop a standard A and B market deal for all future projects and to convert all OVG 360 deals to TM now or as they expire for 10 years… Appreciate the consideration and partnership and all of us will work diligently on this so we are always aligned with TM."

79. Oak View Group projected it would flip at least 22 venues to Ticketmaster over the next four years. As venue manager, Oak View Group is able to control which non-incumbent ticketing services are invited to submit bids for ticketing service proposals and often only invites Ticketmaster. By advocating for Ticketmaster over rival ticketers, Oak View Group takes off the table several of the limited opportunities rival ticketers have to compete against Ticketmaster. So far, Oak View Group is on pace to hit its goal: in 2023 Oak View Group converted six venues to Ticketmaster.

B. Live Nation threatens rivals to blunt expansion into U.S. concert promotions.

80. Live Nation also wields its power to keep other rivals from expanding in the concert promotions market in the United States. For example, in 2021, Live Nation threatened commercial retaliation against private equity firm Silver Lake, unless one of its portfolio

companies, TEG, stopped competing with Live Nation for artist promotion contracts in the United States. These threats ultimately succeeded, and Silver Lake has tried to sell TEG altogether.

81. Prior to the TEG incident, Live Nation and Silver Lake had a relationship through Silver Lake's ownership of Oak View Group, which, as discussed above, became a functionary for aspects of Live Nation's anticompetitive scheme. But TEG's attempt to expand its role in the live music industry in the United States—a clear direct threat to Live Nation quickly threatened to sour that relationship.

82. Live Nation's campaign to squash competition with TEG took place at the highest levels. In 2021, Live Nation's CEO complained to Oak View Group's co-founder that TEG was "[f]ull on competitors." Oak View Group, in turn, conveyed to Silver Lake that Live Nation was "not happy." Live Nation's CEO then escalated his complaints to Silver Lake directly, conveying: "I am all in on [Oak View Group] where the big play lies with venues – why insult me with this investment in ticketing/promotions etc."

83. Later in 2021, Live Nation learned that TEG made offers to prominent artists in the United States and succeeded in securing a big-name artist for a concert at the Los Angeles Coliseum. In response, Live Nation used its exclusive ticketing deal with the venue to frustrate TEG's concert. For this concert, TEG reached an agreement with StubHub where TEG would sell a certain number of tickets on StubHub's platform. In response, Live Nation, through its subsidiary Ticketmaster, which purportedly was the exclusive ticketer for all shows at the venue, threatened to deny entry to any fan using a StubHub-issued ticket. Ultimately, StubHub stopped selling tickets and attempted to work with Ticketmaster to fulfill the tickets that it had already

sold. But Ticketmaster failed to fulfill many of those tickets to StubHub's customers, and hundreds of StubHub's customers were refused entry to the event.

84. After learning about the TEG concert, Live Nation's CEO again threatened Silver Lake, TEG, and Oak View Group. As Live Nation's CEO put it, he "fail[ed] to understand" why Silver Lake "continue[d] to invest in a business that competes with LN/OVG…." Live Nation threatened to pull its support from Oak View Group and instead back an Oak View Group competitor unless TEG stopped competing with Live Nation in the United States:

> I can assure you the OVG investment is a much bigger win then T[E]G …. LN declared to back OVG vs other developers or going solo and it's been a huge win for both sides– we have over 20 global arenas in development that neither could do without the other … do you really want LN backing [AEG's venue development and management company]…? Seems like a dumb trade off??

85. The co-founder of Oak View Group, who refused to allow TEG to promote any of his large roster of artist clients,[11] thereafter informed Live Nation that he was going to demand that Silver Lake sell TEG. Live Nation's CEO replied, "Love ya."

86. TEG soon stopped competing for concert promotions in the United States. Silver Lake now seems "intent on dumping teg" and has asked, through the founder of Oak View Group, whether Live Nation would be interested in purchasing TEG.

C. Using "carrots" and "sticks," Live Nation locks venues into exclusive, long-term ticketing agreements with Ticketmaster that shut out competition.

87. Live Nation puts a "choice" to venues: use Ticketmaster and potentially receive a significant payment for long-term exclusivity or use another ticketer and risk losing access to the vast array of Live Nation assets, including lucrative concerts. Sometimes Live Nation is bold and communicates this threat directly. Other times, the expression of the threat may be implicit, but

[11] Oak View's co-founder also owns a large artist management company, Full Stop Management.

the meaning is self-evident. And in some circumstances, Live Nation deploys its extensive network of intermediaries to communicate this "choice." Sometimes, the "choice" does not have to be communicated at all. It is well understood across the live concert industry, as a result of Live Nation's historical conduct and exactly as Live Nation intended, that choosing ticketers other than Ticketmaster carries enormous risk and financial pain.

88. Live Nation's reputation and history of retaliation are so well known in the industry that Live Nation does not have to (although it still does) explicitly threaten individual venues. Instead, its threats have become more public and generalized. As Live Nation's CEO told the industry in 2019, Live Nation's concert promotions business decides to host concerts "where we make the most economics," which usually means venues where Ticketmaster holds the primary ticketing contract. Venues considering primary ticketing options understand all too well the risks of switching to another ticketer, and some even model the loss they would suffer if they switched and lost access to some of Live Nation's concerts. The threat of steering shows away from venues allows Live Nation to exercise its monopoly power to get better promotions deals and impose Ticketmaster on venues.

89. Live Nation has a number of punitive tools it can use to retaliate against venues, even without making good on the catastrophic threat of pulling or moving concerts completely. In addition to reducing the number of concerts it places at a venue, Live Nation has the power to move shows to less desirable and less lucrative dates, curtail promotional efforts, and force venues to disable secondary ticketing on non-Ticketmaster platforms (potentially making unsure fans less likely to commit to tickets in the first place and frustrating fans who do buy tickets but change plans).

90. These kinds of threats and punishments are not just how Live Nation acquired its outsized power in every corner of this industry. In fact, Live Nation has continued to use this playbook in recent years. For example, in 2021, Live Nation threatened retaliation against a venue that had decided to switch from Ticketmaster to SeatGeek for primary ticketing. That venue had decided to switch, in part, because SeatGeek offered to share a greater percentage of the fees associated with secondary ticketing.

91. Upon learning about the potential switch, a senior Live Nation executive texted a not-so-subtle warning to the venue's CEO: "Apparently seatgeek are telling [nearby venue] and others that they have a contract deal with you guys already?? Anyways should think about bigger relationship with LN not just who is writing a bigger sponsorship check 😜." A few days later, Live Nation's CEO emailed the venue's owner that Live Nation "will be very concerned that seatgeek a secondary provider will be selling our LN artist tickets when not authorized by the artist."

92. Once the venue switched to SeatGeek, Live Nation followed through on its threats, re-routing concerts to other venues. Live Nation's promotions business also demanded that the venue disable secondary ticketing on SeatGeek's platform for all Live Nation-promoted concerts, depriving the venue and SeatGeek of secondary fee revenue.

93. Live Nation eventually relented and allowed the venue to enable secondary ticket sales—but only after (a) the venue agreed to split its share of secondary fee revenue (sourced through SeatGeek) with Live Nation, and (b) SeatGeek agreed to change its ticket-buying interface to make it conform, in some respects, to Ticketmaster's without regard to whether that was what fans or the venue preferred. In particular, Live Nation demanded that SeatGeek change the way it distinguished primary and secondary tickets (to make it more like Ticketmaster) and

limit the use of its fan-friendly tool called "DealScore." Given all of Live Nation's complaints, which it directed to the venue, it is unsurprising that within about a year, that venue returned to Ticketmaster.

94. The knowledge and awareness in the industry—that Live Nation will route shows away from venues that do not choose Ticketmaster—is so widespread that other intermediaries deliver threats and warnings to venues for Live Nation's benefit. For example, Oak View Group, Live Nation's self-described "hammer," has made such threats to at least one venue. And at least one other venue has been warned by a rival CEO that Live Nation would move shows away from the venue if it selected SeatGeek for primary ticketing services.

95. Even Live Nation's biggest competitors fear losing concerts if they do not use Ticketmaster. Live Nation's principal competitor, AEG, has an approximately 30% ownership stake in Anschutz Spectacor Management ("ASM Global"), a venue management company that manages more than 30 arenas in the United States. ASM Global resulted from a 2019 merger between AEG Facilities and Spectacor Management Group ("SMG"). Before the merger, SMG's legacy venues had used Ticketmaster as their exclusive primary ticketer, and AEG Facilities' legacy venues had used AXS as their exclusive primary ticketer. Through its minority interest in ASM Global, AEG advocated for AXS to serve as the exclusive primary ticketer for the ASM Global venues AEG now partially owned. But ASM Global's majority shareholder Onex worried that Live Nation would retaliate by withholding shows from ASM Global venues if ASM Global entirely switched away from using Ticketmaster.

96. To avoid losing access to concerts at ASM Global venues by "alienating" Live Nation, AEG was forced to accept that Ticketmaster would remain the dominant provider at ASM Global venues despite AEG's partial ownership of ASM Global and AEG's ability to

provide an alternative primary ticketer, AXS. AEG agreed Ticketmaster would remain the default primary ticketer for most ASM Global venues, with AEG reserving the right to use AXS for events promoted by AEG.

97. These threats—whether direct or indirect, explicit or implicit— coupled with Live Nation's multi-pronged strategy of long-term exclusive agreements, a history of retaliation, and other exclusionary conduct—means neither venues nor artists are free to choose ticketers based on their own assessment of price, quality, or value. They are not free to choose a ticketer based on the best technology, or most favorable contract terms, or simply what works best for them or—importantly—what works best for the fans that fill venues to see their favorite artists. Instead, venues, artists, fans, rivals, and others throughout the live concert industry must navigate an ecosystem created by Live Nation, defined by its dominance in promotions *and* ticketing, together with its extensive network of venues (especially amphitheaters), and limited by Live Nation's restrictions and restraints.

D. Ticketmaster's long-term exclusive agreements with venues are designed to lock up share and lock out competition, which forecloses a substantial share of primary ticketing markets.

98. Ticketmaster's long-term, exclusive agreements with venues are a key tool to protect Live Nation's stranglehold on the live concert industry, and on primary ticketing in particular. These agreements make Ticketmaster the sole provider of primary ticketing services for all or nearly all events held at a venue for multiple years, sometimes as long as 14 years.

99. Ticketmaster's exclusive agreements cover more than 75% of concert ticket sales at major concert venues, foreclosing a substantial share of the primary ticketing market from rival ticketers. In 2022 alone, for example, Ticketmaster signed several lengthy deals with major concert venues.

100. Ticketmaster is quite clear about why it focuses on these deals: they are, in Ticketmaster's own words, a "[h]edge against significant improvements by the competition or even a new competitor" because the "client is under contract for longer and not able to leave [Ticketmaster] or price the competition's offer into our new deal for an extended time." In other words, even if a rival ticketer were to offer a better price, a better product, or simply a better ticketing experience, a Ticketmaster-exclusive venue would not be able to choose the rival for a long time, often a decade.

101. Before its long-term exclusive agreements expire, Ticketmaster also works defensively to deny rivals the opportunity to compete at all. Ticketmaster often renews or extends these ticketing agreements before they expire, thus preventing rivals like SeatGeek and AXS from being able to bid at all. This not only eliminates the chance Ticketmaster will lose the contract but also mitigates competitive pressure on Ticketmaster to improve the terms of the contract.

102. To ensure their existing locked-in venues agree to early renewals and thereby block competition from a rival for the contract, Ticketmaster used COVID-19 as an opportunity to extend the terms of its existing long-term venue ticketing agreements by one year. After one venue resisted, telling Ticketmaster that it disagreed and intended to sign with a rival, Ticketmaster's counsel wrote: "Any effort by [the venue] to switch ticketing service providers before [the extension date] would be a breach of contract, and any announced intention to do so would be an anticipatory breach." In a conversation between that venue's CEO and Live Nation executives, Live Nation's CFO indicated Live Nation would "drop" the contractual dispute if the venue agreed to enter into a new ticketing contract with Ticketmaster, but not if the venue went with a rival.

103. Ticketmaster's renewal strategy not only blocks potential rivals but also creates friction—legal costs and otherwise—to ensure venues do not even try to pursue a competitive bidding process.

104. These strategies are part of a deliberate and defensive series of actions and decisions designed to lock up venues, lock out competitors, and hold the industry hostage from innovation and evolution. It is well recognized that "opening" venues, that is, eliminating exclusivity to permit multiple primary ticketers to service a venue or a particular concert, could benefit fans. Open venues can make it easier for fans to find tickets via multiple platforms and those platforms would be incentivized (in terms of price and technology) to compete for fans' purchases. Venues, too, could benefit, because having multiple ticketers would enable venues to increase the number of tickets sold, exercise greater choice over how tickets are sold or resold, and reach new audiences.

105. When venues have proposed non-exclusive ticketing contracts, Ticketmaster has almost invariably rejected the request, even outside the live concerts space. And even though Live Nation agreed to limited non-exclusivity for AEG-promoted shows at certain ASM Global venues as part of its recent contract negotiation—to dislodge its largest ticketing rival (AEG's AXS) from the very venues that its largest promotions rival (AEG) partially owns—Ticketmaster has refused to even consider it for other venues. If even AEG must acquiesce to Live Nation's demands that Ticketmaster exclusively ticket every show at AEG's own affiliated venues—save those shows promoted by AEG—no other major concert venue owner stands a chance.

106. While the industry and fans would benefit from "opening," Ticketmaster—as the incumbent monopolist—and its parent company, Live Nation, knows it would not. For Ticketmaster, the success of exclusivity combined with Ticketmaster's already high market share

in the United States are fool-proof ways to maintain its empire, the benefits of which are reflected in Ticketmaster's bottom line. Primary ticketing fees are far higher in the United States than in other countries around the world.

107. Ticketmaster's exclusive agreements also inhibit the growth of more specialized ticketing services and different business models. For example, Ticketmaster's exclusivity provisions deny most artists the ability to sell tickets directly to their most passionate fans and "fan clubs" through pre-sale windows. Since third parties often charge less than Ticketmaster, when selling to fan clubs through non-Ticketmaster ticketing systems, artists are better able to control ticketing fees. Through fan clubs or other alternative ticket distribution methods, artists can also offer tickets alongside other experiences and opportunities that can improve the concert experience or increase value for fans. Alternative distribution methods can also provide artists greater control over how, when, and to whom tickets are made available. Ticketmaster previously allowed tickets to be sold through third parties to fan clubs in accordance with its Fan Club Policy. But after acquiring one such third-party provider of tickets to fan clubs in 2018, Ticketmaster has used its exclusive ticketing contracts with venues to curtail artists' ability to use third-party providers for fan club sales—at the expense of artists' choice and their relationships with fans.

108. Ticketmaster further uses its extensive network of long-term exclusive ticketing contracts to raise the costs of rival ticketers and further heighten barriers to entry. For example, in the areas where despite Ticketmaster's best efforts, competitors still persist, Ticketmaster deploys its vast power and network to protect its monopoly. One example of this is Ticketmaster's encrypted mobile ticket program, SafeTix, Ticketmaster has added SafeTix to its suite of products and services in a manner that protects its position in primary ticketing, expands

its position in secondary ticketing, and undercuts the ability of rival ticketers to compete in either aspect of ticketing.

109. Pursuant to this program, Ticketmaster replaced the static barcodes on PDF—or other types of electronic tickets—with a constantly refreshing and encrypted barcode. Ticketmaster's SafeTix marketed this change as reducing the risk of ticket fraud from stolen or illegal counterfeit tickets. But the transfer restrictions implemented as part of this change also make it more difficult for a fan who wishes to buy or sell a SafeTix-encrypted ticket through a secondary platform to use a rival platform like StubHub or SeatGeek. Further, SafeTix introduces uncertainty as to when, or even whether, that ticket can even be transferred. If a ticketholder wants to sell or otherwise transfer a SafeTix-encrypted ticket, both the ticketholder and the purchaser must create Ticketmaster accounts (thereby providing Ticketmaster with their data), download the Ticketmaster app, and wait for Ticketmaster to determine when or whether the transfer can be completed. By reducing the incentives to enter secondary ticketing altogether, SafeTix not only reduces competition from existing rivals but also disincentivizes prospective innovators from considering secondary ticketing as a viable foothold for entering primary ticketing.

110. In addition to inserting Ticketmaster as an intermediary into secondary ticket transfers and transactions, SafeTix has also fortified Live Nation's data advantages over its rivals. According to internal documents, SafeTix was expected to grow the "size/value of the TM database," already by far the largest of any ticketer, by as much as 30 to 40%. As Live Nation's CEO put it, "[o]ne of the advantages we've launched under the transfer strategy is we now not only know the person that bought the ticket, but we're going to know those three people that you are taking to the show, which we have not known historically." Live Nation can monetize this

unique trove of data in its various businesses to both increase its bottom line and further entrench its positions across the live entertainment industry.

E. Live Nation restricts access to its venues unless Live Nation is paid to be the promoter.

111. Live Nation's control over a significant number of concert venues not only facilitates maintenance of Ticketmaster's monopoly in ticketing but also serves to limit artists' options and exclude rival promoters. Live Nation has a longstanding policy going back more than a decade of preventing artists who prefer and choose third-party promoters from using its venues. In other words, if an artist wants to use a Live Nation venue as part of a tour, he or she almost always must contract with Live Nation as the tour's concert promoter.

112. Live Nation's policy of restricting the use of its venues is particularly problematic for artists seeking to tour in large amphitheaters where Live Nation enjoys monopoly power. These artists—many of whom have well-established, dedicated fan bases but have not yet matured their fan base to play larger stadiums—are effectively forced to hire Live Nation as their promoter or risk being locked out of dozens of desirable Live Nation-controlled large amphitheaters in the United States. Live Nation's amphitheater portfolio includes at least 40 of the top 50, and more than 60 of the top 100 amphitheaters in the United States. No other entity owns more than a handful of amphitheaters in either set. This network of large amphitheaters has allowed Live Nation to attain a greater than 70% market share in large amphitheater promotions and become by far the largest promoter of national amphitheater tours. Put differently, it is nearly impossible for an artist to create a tour that includes stops at amphitheaters without Live Nation.

113. Live Nation senior executives know the company has restricted the use of its amphitheaters and other venues for years and often make the choice to sacrifice additional profits

the company could be earning as a venue owner by opening its venues to non-Live Nation promoted shows that are available to play at those venues. A 2018 internal Live Nation analysis found that its top 10 amphitheaters are "dark," or without shows, "on nearly 50% of their Saturdays in the summer," the highest performing day of the week during the primary performance season. Relatedly, a 2022 analysis found that Live Nation's top 15 amphitheaters are, on average, dark on eight Saturdays between June and September.

114. Live Nation also recognizes its amphitheater portfolio gives it control over artists pursuing an amphitheater tour. For example, a senior Live Nation executive directed his employees not to increase guaranteed payments offered to artists they know are looking for "True Amp Tours." This is because Live Nation recognizes these artists almost certainly will need to play several shows at Live Nation's stable of top amphitheaters, and to do so, they will need to sign with Live Nation as their promoter: "we know [artists] are likely playing amphitheaters and we are going to get those in most cases." Because many artists sign with Live Nation to promote their entire tour—both amphitheater and non-amphitheater shows alike—Live Nation's restrictive amphitheater policies help the company extend its reach to promoting artists in other venues as well. Further, because relationships are so important in the promotions business, once Live Nation uses its exclusionary amphitheater policy to lock in emerging artists early in their careers, they are able to keep some of those artists as they graduate to higher capacity venues, such as arenas and stadiums.

F. Live Nation strategically acquires promoters, venues, and festivals to eliminate rivals, expand its network, and grow its "moat."

115. To protect and expand its positions across the live entertainment industry, Live Nation has pursued a strategy of acquiring nascent threats and neutralizing rivals. This strategy has included acquiring promoters, amphitheaters, festivals, other venues, and even small

ticketers, as well as entering into long-term exclusive booking contracts with many venues. Although many of these rivals were relatively small at the time of their acquisitions, Live Nation's internal documents show that the company viewed them as some of its "biggest" threats. This is unsurprising given the lack of sizeable, scaled, national competitors in the markets in which Live Nation operates. Live Nation's conduct has thwarted growth of its rivals and disincentivized investment that might have led to entry. Nonetheless, Live Nation viewed many of these acquisitions of competitors on the "edge" as necessary to protect its "moat" around the live concert ecosystem.

116. In its own words: "Live Nation is a company founded on acquisition. At its inception, Live Nation began rolling up the regional world of promoters and venues and has not stopped since." Over the past decade, Live Nation has acquired dozens of companies across the industry to expand its reach and entrench its positions.

117. Live Nation has recognized that one of its "Biggest Competitor Threats" is smaller and regional independent promoters that have the ability to "com[e] in from the edges creating events, opening venues, and purchasing artist inventory." To address this disruptive potential, Live Nation pursued an aggressive plan to acquire or co-opt key independent promoters, even when the economics of a particular deal did not make sense for its promotions business. Live Nation personnel justified the counterintuitive economics for these transactions by looking at the long-term benefits: reducing competition for artists, including by "keeping the [artist] guarantees down" and stopping competitors from "driving the price up" for artists.

118. Live Nation's acquisitions have, over time, constrained artists' choice of promoters. This is especially true for nationwide tours and has the effect of further increasing venues' dependence on Live Nation for content. As a major venue in New York City recognized,

Live Nation has made significant acquisitions of top independent promoters over the past decade, eliminating most mid-tier promoters and leaving primarily small, concert promotion companies with little market share.

119. Below are some specific examples of Live Nation's acquisition strategy in practice.

120. **United Concerts**. In 2017, Live Nation acquired United Concerts, a promoter and venue owner in Utah, whose venues included the most popular large amphitheater in the state. Live Nation acquired United Concerts in part to eliminate a potential competitive promotions threat and to starve a competing primary ticketer of customers.

121. Before Live Nation bought United Concerts, many venues in Utah, including United Concerts' venues, used a regional ticketing company called SmithsTix.[12] Internally, Live Nation noted that SmithsTix had taken Ticketmaster's "last client in Utah" and left a "barren landscape[]" for Ticketmaster there. Live Nation chose not to acquire SmithsTix directly because doing so would "require us to go to the DOJ [to notify them as required under the 2010 consent decree that it planned to acquire a primary ticketing company] and that's something we wouldn't necessarily want to do." Instead, Live Nation went bigger while sidestepping the notification requirements of the consent decree: it acquired United Concerts and its venues, and *then* converted those venues to Ticketmaster. Left "with only a few small clients," SmithsTix ultimately went out of business.

122. **AC Entertainment**. In 2016, Live Nation acquired a controlling stake in AC Entertainment—a regional independent promoter in the Southeast and one of Live Nation's

[12] The prior owner of United Concerts also owned DATATIXS, a regional ticketing company that operated under the SmithsTix brand. SmithsTix provided ticketing services to more than 40 venues throughout Utah, including the arena that the home of the Utah Jazz.

internally designated "Biggest Competitor Threats." AC Entertainment promoted over 1,000 shows a year, including arena and amphitheater shows. AC Entertainment also controlled the venue booking decisions at 14 historic theaters and clubs throughout Tennessee and the Carolinas and promoted major music festivals, including Bonnaroo.

123. Live Nation pursued the acquisition even though it had doubts about the standalone economics of the deal. Live Nation's Chief Strategy Officer explained to Live Nation executives: "The numbers are not super exciting and this feels like more of a defensive move to (I) Keep [rival] AEG out of the region especially creating situation where [a well-known artist manager] can play both sides in Nashville." Live Nation's Chief Strategy Officer also recognized that the acquisition helped "grow[] our moat in the [Nashville] market," while another internal document touted the benefit of "lower competition in the Region and specifically in Nashville."

124. **Frank Productions and National Shows 2**. In 2018, Live Nation acquired yet another "Biggest Competitor Threat" in rival promoter, Frank Productions. Frank Productions owned four theaters and clubs in Wisconsin—one of which competed with a Live Nation-operated venue. When its owners looked to transition the business to new ownership as they stepped back, Live Nation jumped at the opportunity to take another edge competitor off the board, and out of the hands of any other potential buyer.

125. Live Nation used this acquisition, in part, to convert Frank Productions' venues to Ticketmaster. Frank Productions previously selected other primary ticketing service providers over Ticketmaster because it had "a difficult time wrapping their head around why they would do business with a company [Live Nation/Ticketmaster] who will be in direct competition with them in their home market." Recognizing that Frank Productions venues' ticketing contracts

were set to expire not long after the acquisition, Live Nation acquired the company and then flipped the venues to exclusive Ticketmaster contracts.

126. Live Nation also acquired Frank Productions' subsidiary, National Shows 2—yet another firm listed as a "Competitor Threat." National Shows 2, which promoted over 350 shows per year in the United States, was one of a small number of competitors to Live Nation in the Nashville region after Live Nation bought AC Entertainment, the acquisition described *infra* ¶ 122, in 2016.

127. **Red Mountain Entertainment**. In 2018, Live Nation acquired Red Mountain Entertainment, a regional promoter that promoted shows in Alabama and Mississippi, including several music festivals throughout the Southeast. At the time of the acquisition, Red Mountain also operated and/or exclusively booked concerts at Wharf Amphitheater in Orange Beach Alabama, Brandon Amphitheater in Brandon, Mississippi, and Tuscaloosa Amphitheater in Tuscaloosa, Alabama. Red Mountain had been on Live Nation's radar since at least 2016 when a Live Nation executive indicated it had an "active plan to mitigate further expansion" by Red Mountain because Live Nation "[c]an't get complacent and let small guys encroach from the edges." Live Nation recognized that Red Mountain's control of the Tuscaloosa Amphitheater was driving up compensation to artists, and so it wanted control of the Tuscaloosa Amphitheater to "keep[] the guarantees down" to artists.

128. As Red Mountain grew, Live Nation unleashed what it called a "velvet hammer" by warning that it would cut off "the content flow on artist[s]" to Red Mountain venues if Red Mountain continued to compete as a promoter. A Live Nation executive described the message he communicated to Red Mountain: "Either we are together or we are competitors. Seemed to work, as they had 3 venues, 2 festivals and another venue coming online in [20]18, and wanted

the content flow on artists where we had touring rights to in the U.S. Velvet Hammer." Red Mountain ultimately agreed to sell its business to Live Nation.

129. **313 Presents ("313")**. In 2018, Live Nation co-opted a Detroit-based competitor, 313, by entering into a multi-faceted agreement. Prior to the agreement, Live Nation recognized 313 predecessor organizations, Palace Sports and Olympia Entertainment, as "competitors" since they "make direct offers to artists." As such, Live Nation and the co-founder of Oak View Group concocted a "scheme" to "put [Olympia] out of the promoting side." After the agreement, Live Nation stopped competing with 313 over venues in the Detroit market while 313 stopped competing against Live Nation for artist talent. 313 recognized that without the agreement, 313 and Live Nation would be forced to compete to the benefit of artists.

130. The agreement worked to suppress competition to the benefit of both parties. 313 Presents saw reduced talent costs and avoided competition from an expanding venue operator. Live Nation, meanwhile, disarmed another promotions competitor, secured exclusive deals at three amphitheaters, and locked-up several venues with Ticketmaster for years to come. Today, 313 controls several of the most popular concert venues in the Detroit live music hub.

131. **ScoreMore Shows**. ScoreMore Shows was a regional promoter in Texas that Live Nation identified as a "Competitor Threat." Around 2017, Live Nation agreed with ScoreMore not to compete to sign artists in Dallas and to pool their collective revenues to co-promote artists. After that agreement was in place, in 2018, Live Nation acquired a majority stake in ScoreMore Shows. Internal Live Nation documents celebrated that ScoreMore and Live Nation were "no longer competing" or "driving the price up" for booking artists. Live Nation replaced rivalrous competition with cooperation. As the CEO of ScoreMore Shows stated to Live Nation:

> [Y]ou are forgetting that **in pooling these revenues it also meant that we were no longer competing. We weren't driving the price up, either**. We haven't

> been sending offers or telling agents anything but "yes, that's good, we work with LN, we will copro[mote] there." [S]o if we were on our own (without the pool), sending our own offers, putting in indie rooms, driving the price up … do you think the [contribution margin] would be the same? [W]ould you still think we don't provide the value?

132. For Live Nation, the value of no longer competing with ScoreMore meant that it could book more shows while paying less to artists. Live Nation's CEO wrote to ScoreMore's CEO, "I agree that measurement is what you book and what you stand down for overall win. . . ."

133. **Logjam Presents**. In 2023, Live Nation acquired a majority stake in Logjam Presents, the leading promoter and venue operator in Montana. Prior to the acquisition, the Logjam Presents venues used a competing primary ticketing service provider. As with previous acquisitions, Live Nation switched Logjam venues from the competing primary ticketing service provider to Ticketmaster once its ticketing agreement expired.

134. At the same time Live Nation was acquiring the businesses identified above, Live Nation was also building a "top tier festival portfolio through acquisitions." Live Nation recognized that the "Proliferation of Festivals" was one of its "Biggest Competitor Threats" because these outdoor shows threatened to "cannibaliz[e] high margin amp shows." In executing this strategy, and to help protect its power and position in amphitheaters, Live Nation acquired several popular and widely attended festivals, including, Austin City Limits, Lollapalooza, Electric Daisy Carnival, Bottlerock, Mountain Jam, Shaky Knees, Houston Free Press Summer, Governor's Ball, and others.

135. Beyond its outright acquisition of venues, some of which are described above, Live Nation has entered into long-term exclusive booking contracts to augment its control of venues, particularly large amphitheaters. In recent years, Live Nation has entered into long-term exclusive booking agreements with more than a dozen large amphitheaters and long-term leases

with several additional amphitheaters as well. While the specific terms vary from agreement to agreement, these exclusive booking agreements generally provide Live Nation the exclusive right to control which artists may use the venue, cementing Live Nation's ability to reward artists it promotes while locking out artists promoted by third-party competitors. Some agreements also provide Live Nation with some degree of control over other aspects of the venue's operations such as concessions and ticketing.

V. Anticompetitive Effects and Competitive Harm

136. Live Nation has engaged in individual anticompetitive acts that have themselves harmed competition. But those individual acts have also had the desired effect of working together in a mutually reinforcing manner to enhance Live Nation's flywheel, suffocate competition, and inhibit the evolution of the live music industry that competition could and should usher in. Live Nation (and its subsidiaries like Ticketmaster) has inserted itself into nearly every corner of the live music industry, which inures to the benefit of Live Nation, but comes at a real cost to fans, artists, venues, and to the competitive process more broadly. Live Nation's conduct, taken individually and collectively, has complicated and exploited the relationship between artists and fans for the delivery of live entertainment and increased its bottom line.

137. The anticompetitive effects of Live Nation's distortion of the competitive process cascade through a number of interrelated relevant antitrust markets and fall upon the various entities within those markets. Live Nation's anticompetitive actions allow Live Nation to impose costs and take more for itself, obstruct innovation, impede competitors and nascent threats, and maintain its monopolies and power.

138. Because the competitive process has systematically and intentionally been corrupted, there has been less competition than there otherwise would have been in the live

music industry over a variety of dimensions, including, ticketing fees, contractual terms, output, quality, and innovation. For example, due to Live Nation's anticompetitive conduct:

- Fans have paid more in fees that are not transparent, not negotiable, and cannot be comparison-shopped because there are no other options;
- Fans have been denied access to the benefits a competitive process would deliver, such as more choices in concerts and innovative fan-friendly ticketing options;
- Artists have had fewer opportunities to play concerts, and fewer real choices for promoting their concerts, selling tickets to their own shows, and performing at certain venues; and
- Venues have fewer real choices for obtaining concerts and ticketing services, and many are reluctant to disrupt the status quo due to the financial risk.

139. Live Nation has used its unlawfully maintained power in promotions, large amphitheaters, and ticketing to siphon an inflated portion of the money flows from the concert ecosystems and impose additional costs through a web of overlapping agreements with other industry participants. For example, Live Nation's "take rate"—the sum of the various cuts of fees and payments it takes through contracts across the concert industry—as the dominant intermediary is higher than it would be in a marketplace without Live Nation's anticompetitive scheme. Through interconnected agreements associated with Live Nation's various roles as ticketer, promoter, artist manager, and venue owner, Live Nation has created a feedback loop that pushes ticketing and ancillary fees higher while allowing Live Nation to be on all sides of numerous transactions and thereby double-dip from the pockets of fans, artists, and venues.

140. Likewise, Live Nation's role as gatekeeper for the venues it owns or controls, especially large amphitheaters, means that touring artists who intend to play several concerts in

large amphitheaters are effectively forced to hire Live Nation, or face reduced compensation and access to fans. Rival promoters are unable to promote artists at many in-demand venues, hampering their ability to compete against Live Nation. And fans attending concerts at Live Nation-controlled amphitheaters get access to fewer shows and see fewer artists than they otherwise would because only Live Nation-promoted artists are allowed to perform there. In many instances, these same fans also face higher prices for ticketing and ancillary services, because Live Nation, acting as the primary ticketer, promoter, and venue owner, faces little competition in each of these interconnected markets. On the other hand, fans who live near the few remaining amphitheaters owned and booked by third parties may not have access to Live Nation's stable of artists, who are instead routed disproportionately through Live Nation's venues.

141. Live Nation has created and now protects a system that inhibits artists, fans, and venues from making choices that should exist in a free market, whether that is choosing a concert promoter or a primary ticketer. And by locking venues into its business model, Live Nation has also dampened competition that otherwise would push fees down for fans. As a result, market forces that ordinarily would constrain the fees borne by fans are absent.

142. Each aspect of Live Nation's scheme erects barriers for rivals and nascent threats to compete on the merits in the alleged markets with better, lower-priced, or different services. This scheme also cements an industry structure that requires would-be competitors to enter multiple markets simultaneously and at scale to compete effectively, further increasing entry barriers. Without Live Nation's exclusionary conduct, rivals and nascent threats could bring more innovations to the marketplace, develop important scale to improve offerings, further enhance their competitive reputation, increase investments, create disruptive business models, or

expand. If those rivals and nascent threats were able to compete on a level playing field, the entire ecosystem, including artists, venues, fans, and others, would realize the many benefits of competition.

143. Based on Live Nation's conduct, venues reasonably fear the disruption, retaliation, and complications of partnering with anyone other than Live Nation lest they lose access to culturally significant and lucrative concerts. That has predictably raised rivals' costs. For example, it has forced at least one ticketing rival to agree to venues "make good" or "lost event guarantee" clauses in some of its ticketing contracts if those venues choose that rival and Live Nation, as predicted, retaliates. These clauses obligate the rival ticketer to compensate its venue customer if Live Nation diverts or pulls concerts in response to a venue choosing a rival ticketer over Ticketmaster. In other words, Live Nation's conduct not only constrains which ticketer venues may choose, but also inhibits and raises costs for rival ticketers who try to compete with Ticketmaster.

144. Competition on the merits would enable more innovation and better products. For example, rivals might bring fan-focused innovations to the marketplace, such as a more streamlined user interface and purchase flow, insightful presentation of ticket inventory, enhanced buying options, or more flexible refund policies. Instead, those would-be rivals face artificial barriers obstructing their ability to gain traction in the marketplace, which in turn dampens incentives to innovate.

145. Live Nation's conduct and power also lessens the competitive pressure to innovate to improve its own products, platforms, and services. Concerns about Ticketmaster's ticketing technology are widespread and have made national news. Facing limited competitive pressure, Ticketmaster has less incentive to invest more into proactively improving its ticketing

products.. Live Nation instead uses the capital it might otherwise spend on technological improvements to sweeten ticketing contracts for venues to keep them locked into long-term exclusive agreements and out of the hands of rivals.

VI. Relevant Markets and Monopoly Power

146. Courts define a relevant product and geographic market to help identify the lines of commerce and areas of competition impacted by alleged anticompetitive conduct. There can be multiple relevant markets covering the same or similar products and services, and markets need not have precise metes and bounds. A relevant market also may include distinct groups or clusters of customers or sellers, where those customers or sellers are identifiable and particularly susceptible to anticompetitive conduct by a monopolist or others.

147. Additionally, there may exist within a relevant product market a nested sub-market that itself constitutes a relevant antitrust market. Such a market may be defined based on differences in products or services within the broader market or differences in the competitive conditions faced by various customer groups within the broader market. Where such a submarket exists, it may be helpful to also examine the effects of anticompetitive conduct within these relevant markets, as the effects may be particularly acute or significant. Additionally, there may be related markets adjacent to each other within an industry that offer distinct products and services, potentially to distinct customers, where competitive dynamics within one market impact competition within the other.

148. Live Nation has its tentacles in virtually every aspect of the live entertainment industry. As a result, Live Nation's conduct has harmed artists, venues, and fans through the loss of competition in several relevant antitrust markets related to ticketing and promotions. Practical indicia in the industry, the structure of the industry and behavior of market participants, along

with substantial evidence that includes ordinary course documents, economic analysis, and other evidence support the relevant markets identified below:

- *Primary Ticketing Services Markets* – Primary ticketing providers offer a variety of services to two distinct sets of customers: major concert venues and fans. The particular products and services offered to and the competitive conditions faced by these two customer groups are distinct but related.
    - First, with respect to venues, there is a relevant market for the provision of primary ticketing services to major concert venues in the United States ("primary ticketing services market"). This market includes within it a relevant submarket, which is in and of itself a relevant market, for the provision of primary *concert* ticketing services to major concert venues in the United States ("primary concert ticketing services market").
    - Second, with respect to fans, there is a relevant market for primary concert ticketing offerings to fans at major concert venues in the United States ("fan-facing primary ticketing market"), and there is a relevant market that includes both primary concert ticketing offerings and services that offer resale of concert tickets ("fan-facing ticketing market").
- *Concert Promotions Services Markets* – Concert promoters similarly offer a variety of services to two distinct sets of customers: major concert venues and artists. The particular products and services offered to and the competitive conditions faced by these two customer groups are distinct but related.

- First, with respect to venues, there is a relevant market for the provision of concert booking and promotional services to major concert venues in the United States ("venue booking and promotion services").
- Second, with respect to artists, there is a relevant market for the provision of promotional services to artists performing in major concert venues in the United States ("artists promotions market").

- *Artist Use of Large Amphitheaters* – Owners, operators, and exclusive bookers of large amphitheaters offer artists use of large amphitheaters for their shows. The provision of the use of large amphitheaters and ancillary services to artists for large amphitheater tours is a relevant market ("use of amphitheaters market").

149. Even where Live Nation's anticompetitive conduct appears to affect a single relevant market, its effects on fans, artists, venues, and others directly reverberate across the live entertainment industry. Likewise, due to the anticompetitive scheme's overall effect of maintaining Live Nation's market power and monopolies and the self-reinforcing aspects of Live Nation's flywheel, effects are felt across the ecosystem regardless of the market in which any particular anticompetitive act has the most direct impact.

A. Primary Ticketing Services Markets

136. Primary ticketing providers offer venues and fans a variety of related but distinct services. Primary ticketing services allow a venue to sell, track, and distribute some or all of the tickets for a show. From the fan perspective, primary ticketing services allow fans to purchase tickets for a show when it first goes on sale to the public and provide a bundle of services that handle payment processing and customer service. Often in today's market, contracts between primary ticketing services and venues dictate the terms and conditions on which primary

ticketers are able to offer tickets to fans, directly impacting (and often limiting) competition for these services from the fan perspective.

i. Primary Ticketing Services to Major Concert Venues

150. The provision of primary ticketing services to major concert venues is a relevant product market. Primary ticketing services are sold to venues, the customers for these services. Primary ticketers contract with venues to provide an array of services. This array of services includes the initial (or primary) sale and distribution of tickets for events at the operative venue, underlying technology, and various business support functions. Primary ticketers for major concert venues require, among other things, sophisticated software capable of handling complex ticketing arrangements and high-demand on-sales, back-office support functions, and consumer data for marketing. In addition, primary ticketers for major concert venues that also host sporting events often must provide support for distributing a team's season tickets. The choice of primary ticketer is a key decision for major concert venues because ticketing operations can materially impact the fan experience at, and reputation of, the venue.

151. The venues most directly impacted by Live Nation's scheme are major concert venues. These are venues big enough to host major concerts and able to provide a suitable environment and infrastructure for widely attended concerts, like large arenas and amphitheaters. As a result, major concert venues are popular locations for concerts and generate a substantial portion of their revenue from them. Because primary ticketers individually negotiate with venues over pricing and other terms, primary ticketers take into account venue size and how important concert ticketing is to a given venue when submitting a bid. Because major concert venues are particularly susceptible to the effects of Live Nation's conduct, and can be targeted, they are appropriately considered together in evaluating that conduct. Internal documents indicate that

Ticketmaster monitors different categories of venues to inform its business decisions and individual negotiations, including size of venue and importance of concert revenues to the venue.

152. The United States is a relevant geographic market for the provision of primary ticketing services to major concert venues. Major concert venues in the United States require providers of primary ticketing services capable of fulfilling contractual requirements within the United States. Internal Ticketmaster documents support the United States as a relevant geographic market. For example, Live Nation evaluates the business and competitive conditions in segments within the United States separately from Canada.

153. There are no reasonable substitutes for primary ticketing services to major concert venues, nor is arbitrage reasonably possible. Given the significant investment and technology required to build and maintain a primary ticketing service, self-supply is a not a reasonable substitute for most major concert venues. Additionally, secondary ticketing services are not reasonable substitutes. *First*, the intended purpose of secondary ticketing services is different than for primary ticketing services. Whereas primary ticketing services are meant to facilitate and run ticket sales on a venue's behalf, secondary ticketing services are meant to facilitate ticket purchasers' resale of their ticket(s). *Second*, ticketholders and fans—not venues—are ticketers' typical customers on the secondary ticketing platform. *Third*, the platforms for primary and secondary ticketing services are functionally very different. Internal Ticketmaster documents recognize these kinds of differences by, for example, analyzing the performance and competitive conditions of primary ticketing separately from secondary ticketing.

154. For these and other reasons, a monopolist in primary ticketing services to major concert venues in the United States would be able to maintain prices above competitive levels and/or maintain quality below the level that would prevail in a competitive market.

155. Live Nation—through Ticketmaster—has a durable monopoly in primary ticketing services for major concert venues in the United States. For example, in 2022, Ticketmaster accounted for at least 70% of the total face value associated with all tickets sold at large arenas and amphitheaters. No other rival ticketed more than 14%.

156. Live Nation's monopoly power in primary ticketing for major concert venues in the United States also is demonstrated by its ability to control prices and/or exclude competition. For example, in the United States, where Ticketmaster has a higher market share relative to other markets, Ticketmaster is able to charge higher prices and impose higher fees not tied to higher costs. In addition, Live Nation has the ability to exclude competition. Some examples of its power and scheme are described above, such as successfully threatening and retaliating against venues that consider a rival primary ticketer and imposing various other restrictive contractual terms.

157. Live Nation's primary ticketing services monopoly for major concert venues in the United States is also protected by significant barriers to entry and expansion. Successfully building primary ticketing capabilities requires substantial investment and access to scale. Live Nation touts its enormous scale as an advantage. Live Nation's scale and its flywheel exacerbate the barriers to entry and expansion in primary ticketing. Live Nation uses its monopoly power in concert promotions to foreclose competition in primary ticketing and erects additional barriers to entry, which prevent ticketers who are not vertically integrated from competing on a level playing field. Live Nation's agreements and exclusionary conduct act as further barriers to entry because they impede rivals' ability and incentives to compete.

158. Within this market exists a narrower relevant product market for the provision of primary ticketing services for concerts and comedy events ("concerts")[13] to major concert venues. There are some unique attributes to providing primary ticketing services for *concerts* to major concert venues such that there are no reasonable substitutes, nor is arbitrage possible. For example, some primary ticketing features are particularly important for concerts, including the ability to handle complex on-sale processes, surge traffic, and specific types of marketing initiatives. In addition, financial arrangements contracting, and fees charged to fans for primary ticketing services can differ for concerts as compared to other event types like sports. This is due, at least in part, to how lucrative hosting concerts can be for major concert venues. Thus, viable competitive alternatives for primary ticketing services for concerts at major concert venues can be, and are, different than for other live events. Internal Live Nation documents analyze concert ticketing separately from ticketing for other events and identify venues for which concert revenues are particularly important.

159. Live Nation—through Ticketmaster—has a durable monopoly in primary concert ticketing services for major concert venues in the United States. For example, Ticketmaster accounts for at least 80% of the total face value associated with all concert tickets sold at major concert venues.

160. For the same reasons as stated above, there are substantial barriers to entry and expansion within this narrower market. A monopolist in primary concert ticketing services at

[13] Live music concerts and comedy shows (as well as musical artists and comedians) have competitive similarities in terms of tour planning, on-sale events, and venue suitability. Ordinary course evidence suggests that concerts and comedy events are assessed and treated similarly as a matter of industry practice.

major concert venues in the United States would be able to maintain prices above competitive levels and/or maintain quality below the level that would prevail in a competitive market.

ii. Primary Concert Ticketing Offerings to Fans at Major Concert Venues

161. The provision of primary concert ticketing offerings to fans at major concert venues is a relevant product market. Fans rely upon primary concert ticketing offerings to purchase tickets to concerts. Primary ticketers typically provide an online interface to purchase tickets to a concert during an initial on-sale and continue to offer tickets for sale until the show is sold out. In addition to facilitating the purchase of tickets, primary concert ticketing offerings typically also provide customer service to fans, employ mechanisms to detect and prevent fraudulent purchases, store credit card information, keep track of fan purchases, and provide fans other related services. Primary concert ticketing offerings to fans at major concert venues require, among other things, sophisticated software capable of handling complex ticketing arrangements and high-demand on-sales and databases. Currently in the United States, except in rare cases, only a single primary ticketing service is offered to fans to purchase tickets to a given concert, and typically, only one primary ticketing service is offered to fans to purchase tickets during all on-sales for a given venue.

162. Resale services offer a different service: the resale of previously purchased tickets. Thus, in order for a ticket to be available for resale on a secondary ticketing marketplace, the ticket must have already been purchased from a primary ticketing offering, with the purchaser having already paid the fees associated with the primary ticketing offering. Accordingly, the fees (and often ticket prices) associated with resale marketplaces are not closely related to the fees associated with primary ticketing offerings, because primary ticketing fees are baked into the price of tickets being resold on these marketplaces.

163. Likewise, other means of obtaining tickets during an initial on-sale are limited and not available to all fans. Ticketmaster makes available a limited number of tickets to ticket brokers but charges fees for the initial transfer of tickets to these brokers before those tickets can be resold to fans. Ticketmaster also allows for the limited ticket sales to artist fan clubs in some circumstances, but such ticket sales are limited in number and not all fans are eligible to purchase tickets through these channels. As a result, they do not represent reasonably close substitutes for most fans today, although they could in the future but for Ticketmaster's anticompetitive conduct.

164. In addition, fans may not view primary and resale tickets as close substitutes due to a perception that a primary ticket purchase is more "secure" or "guaranteed" as compared to a resale purchase.

165. Internal documents indicate that Live Nation tracks its share of primary concert ticketing separately from its share of resale ticketing and identifies a distinct set of competitors in each segment. Live Nation also monitors its share of concert ticketing separate from its share of ticketing for other types of shows.

166. The United States is a relevant geographic market for primary concert ticketing offerings for fans. Fans seeking to attend shows in the United States must use primary concert ticketing services that offer tickets for those shows. Internal Live Nation documents support the United States as a relevant geographic market. For example, Live Nation evaluates the business and competitive conditions in segments within the United States separately from Canada.

167. For these and other reasons, and consistent with industry information, a monopolist in primary concert ticketing offerings to fans at major concert venues in the United

States would be able to maintain prices above competitive levels and/or maintain quality below the level that would prevail in a competitive market.

168. Live Nation—through Ticketmaster—has a durable monopoly in primary concert ticketing offerings to fans at major concert venues in the United States. For example, in 2022 Ticketmaster accounted for at least 80% of the total face value associated with all concert tickets sold at major concert venues.

169. Ticketmaster's monopoly power in primary concert ticketing offerings to fans at major concert venues in the United States is further demonstrated by its ability to control prices and/or exclude competition. In the United States, where Live Nation maintains a high market share in arenas and amphitheaters through its exclusive contracts and owned and operated venues, Ticketmaster has much higher fees relative to other countries notwithstanding comparable costs. In addition, Live Nation has the ability to exclude competition by insisting that venues utilize only Ticketmaster for all shows and for all tickets sold for a given show.

170. Live Nation's monopoly in primary concert ticketing offering to fans is also protected by significant barriers to entry and expansion. To successfully build primary concert ticketing capabilities requires substantial investment and access to scale. Live Nation touts its enormous scale as an advantage. Live Nation's scale and its flywheel exacerbate the barriers to entry and expansion in primary ticketing. Live Nation uses its market power in concert promotions to foreclose competition for primary ticketing service for fans, while also erecting additional barriers to entry that prevent, by preventing ticketers who are not vertically integrated from competing on a level playing field. Live Nation's agreements and exclusionary conduct act as further barriers to entry because they impede rivals' ability and incentives to compete.

171. Although the provision of primary concert ticketing services to fans is a relevant product market, in the alternative, there is also a broader relevant product market that includes both primary concert ticketing offerings and services that provide resale for concert tickets to fans at major concert venues. For the reasons above, primary concert ticketing offerings to fans offer distinct services from resale service providers, and resale marketplaces necessarily rely upon an initial sale of a ticket via a primary concert ticketing service (inclusive of the primary ticketing fees) in order for the resale marketplace to exist. Nonetheless, a fan looking to purchase a concert ticket may be able to purchase such a ticket from a primary ticketing offering or resale service provider. To the extent the two markets are combined into a larger market, internal documents show that Live Nation has substantial market power or monopoly power in this broader market as well.

172. The United States is a relevant geographic market for concert ticketing offerings and resale services for fans. Fans seeking to attend concerts in the United States must use ticketing services that offer tickets for those shows. Internal Live Nation documents support the United States as a relevant geographic market. For example, Live Nation evaluates the business and competitive conditions in segments within the United States separately from Canada.

173. For these and other reasons, and consistent with industry information, a monopolist in a combined market of primary concert ticketing offerings and services that provide resale of concert tickets to fans for shows in the United States would be able to maintain prices above competitive levels and/or maintain quality below the level that would prevail in a competitive market.

174. Live Nation—through Ticketmaster—has a monopoly in this market. For example, in 2022, Ticketmaster accounted for more than 70% of the total transactions associated

with all tickets sold or resold for concerts at major concert venues in the United States. Transaction volume is an economically relevant measure of power in this market. Importantly, these numbers capture only transactions handled principally by Ticketmaster. But, as discussed above, because of Ticketmaster's use of technology like SafeTix, Ticketmaster necessitates its involvement in the resale of tickets that take place entirely on rivals' secondary ticketing platforms. In doing so, Ticketmaster is able to exert some degree of control over these transactions as well as obtain valuable fan data related to ticket transfers. As a result, Ticketmaster's share understates its competitive significance in this market.

175. Ticketmaster's monopoly power in this market also is demonstrated by its ability to control prices and/or exclude competition. For example, Ticketmaster is able to charge higher prices in areas where its power is greatest (notwithstanding comparable costs), as evidenced by the much higher fees charged in the United States, where Ticketmaster has a high market share, relative to elsewhere where its shares are much lower. In addition, Live Nation has the ability to exclude competition. Some examples of its power and scheme are described above, such as successfully threatening and retaliating against venues that consider a rival primary ticketers and imposing various other restrictive contractual terms.

176. Live Nation's monopoly over primary concert ticketing offerings and services that provide resale of concert tickets is also protected by significant barriers to entry and expansion. To successfully build primary ticketing capabilities requires substantial investment and access to scale. Live Nation touts its enormous scale as an advantage. Live Nation's scale and its flywheel exacerbate the barriers to entry and expansion in primary ticketing. Live Nation uses its market power in concert promotions to foreclose competition to become a primary ticketing offering for fans and erects additional barriers to entry, by preventing ticketers who are not vertically

integrated from competing on a level playing field. Additionally, Live Nation has taken steps to impede resale providers from efficiently facilitating the resale of tickets, including by hindering the transfer of tickets originally sold by Ticketmaster. Live Nation's agreements and exclusionary conduct act as a further barrier to entry because they impede rivals' ability and incentives to compete.

B. Concert Promotions Services Markets

177. Concert promoters offer a variety of related products and services to two distinct sets of customers: major concert venues and artists. For major concert venues, promoters arrange for, book, and market shows with artists to fill available dates at the venues. These services can take the form of booking one-off performances of an artist or long-term booking agreements where the promoter promises to bring multiple artists to a venue over a period of time. For artists, concert promoters work to plan, finance, and market an artist's show or—as is more often the case—a tour of multiple shows. In this way, although concert promoters are responsible for bringing together an artist and venue to perform a show, the particular form and nature of services they offer venues and artists differ considerably.

i. Concert Booking and Promotion Services to Major Concert Venues

178. The provision of concert booking and promotion services to major concert venues is a relevant antitrust product market. In general, promoters arrange and coordinate artist performances at venues and help to promote those shows to the public once they are booked. Promoters have significant influence over which venues an artist chooses to play. Typically, venues enter into individualized agreements with promoters (either on a show-by-show or long-term basis), which dictate the payments between venues and promoters in exchange for the performance(s). Concert booking and promotion services are essential to major concert venues because they help ensure the venues receive a steady stream of concert content.

179. The venues most directly impacted by Live Nation's scheme are major concert venues. As discussed above, major concert venues have unique characteristics that make it appropriate to include them in this product market. In particular, major concert venues rely on live entertainment for a significant portion of their revenues and thus are unlikely to forego promotion services. Revenue from live entertainment is important to offset substantial fixed costs at these venues, and more events allow venues to allocate those costs across a greater number of shows.

180. There are no reasonable substitutes for the purchase of concert booking and promotion services for major concert venues. Booking and promotional services for non-concert events at major concert venues are not adequate substitutes because the venues' average revenue per show from concerts is often higher than from non-concert events. Neither self-promotion nor self-supply is a significant constraint because most venues will be unable to incentivize a sufficient number of artists to choose to perform at their venue without the support of a promoter. Most venues cannot successfully promote concerts at scale because they lack the necessary expertise and relationships and are unwilling to assume the financial risk of a show selling poorly. Industry participants, including Live Nation and venues, recognize that providing concert promotions is a unique business and separately analyze the business and competitive conditions.

181. The relevant geographic market for the provision of concert booking and promotion services to major concert venues is no broader than the United States, and there may also be smaller, regional relevant geographic markets. When procuring booking and promotion services, major concert venues in the United States require providers that can service their requirements in the United States. Further, many artists who perform at major concert venues do

so as a part of regional or national tours that include venues across the United States. Internal Live Nation documents also support the United States as a relevant geographic market. For example, Live Nation considers the United States to be a distinct reporting segment and separately evaluates the business and competitive conditions in the United States.

182. For these and other reasons, a monopolist in the provision of concert booking and promotion services to major concert venues in the United States would be able to maintain prices above competitive levels and/or maintain quality below the level that would prevail in a competitive market.

183. Live Nation has monopoly power in the provision of concert booking and promotion services to major concert venues in the United States. For example, Live Nation as a promoter accounts for around 60% of the total face value associated with all primary tickets sold at major concert venues and more than 70% of the total face value associated with large amphitheater shows in the United States. Total face value is an economically relevant measure of power in this market. As another point of reference, Live Nation is reported to have promoted 22 of the top 30 Billboard "boxscores" in 2023.

184. Live Nation's monopoly power in concert booking and promotion services for major concert venues in the United States is also demonstrated by its ability to control prices and exclude competition. For example, as described above, Live Nation extracts supracompetitive payments from venues, including large promoter rebates, and otherwise imposes onerous, restrictive contractual terms on venues in exchange for supplying them with content. In addition, Live Nation has the ability to exclude competition in concert promotions through, for example, exclusivity agreements with venues. Some examples of its power and scheme are described

above, including using its power to stop rivals or nascent threats from competition in concert promotions.

185. Live Nation's power over concert booking and promotion services is protected by barriers to entry and expansion. Promotion contracts with artists, the key input in this market, requires capital, expertise, connections, data, and a demonstrated level of success in the industry. There are also indirect network effects that sustain high barriers to entry in concert promotions. Venues naturally prefer to work with a promoter who is successful in promoting many popular artists, and artists naturally prefer to work with a promoter who is successful in promoting many high-demand shows at popular venues. As described above, in addition to Live Nation's scheme, Live Nation's self-described flywheel and scale-related factors enhance substantial barriers for entry and expansion in this market as well.

ii. Promotion Services to Artists

186. The provision of promotion services to artists performing in major concert venues is also a relevant product market. Artists seek to contract with promoters for their help in arranging individual concerts and tours. Typically, artists enter into contracts with a promoter for a single show, multiple shows, including a tour. Promoters work with artists, and their managers and/or agents, to help the artist choose the venue(s) where they will play, work with venues on behalf of the artist to arrange aspects of the show(s), and then ultimately promote each show in local areas where the artist will perform. Promoters take on the financial risk associated with a show or tour, and in exchange they are compensated with a portion of the revenue generated by successful shows. For artists seeking to perform in major concert venues, promoters are an essential component to ensuring the show or tour is successful.

187. Artists who seek to perform all or parts of their tour in large amphitheaters are uniquely impacted by Live Nation's anticompetitive conduct. Because of Live Nation's control

over a vast network of large amphitheaters and its policy to only work with artists that it promotes, artists seeking to perform a tour in large amphitheaters are denied the ability to work with the promoter of their choice if they want to play a Live Nation-owned or controlled venue. These artists are forced either to work with Live Nation or forgo an amphitheater tour altogether.

188. There are no reasonable substitutes for promotion services for artists seeking to perform in major concert venues. Artist performances in major concert venues are complicated events whose success requires significant industry experience and relationships with different vendors. Self-promotion is not a reasonable substitute for artists because they generally lack the expertise, relationships, and financial resources to promote a show or tour on their own at major concert venues.

189. The relevant geographic market for the artist promotions market is no broader than the United States, and there may also be smaller, regional relevant geographic markets as well. When procuring promotion services for performances in major concert venues in the United States, artists require promoters who can service their requirements in the United States. Internal Live Nation documents also support the United States as a relevant geographic market. For example, Live Nation considers the United States to be a distinct reporting segment and evaluates the business and competitive conditions in the United States separately.

190. For these and other reasons, and consistent with industry information, a monopolist in the artist promotions market in the United States would be able to maintain prices above competitive levels and/or maintain quality below the level that would prevail in a competitive market.

191. Live Nation currently has monopoly power in the market for the provision of promotion services to artists performing in major concert venues in the United States. Live

Nation's policy of blocking third-party promoted artists from using its amphitheaters has enabled the company to grow its share in the artists promotions market, above and beyond what it would have been able to achieve through fair competition. Industry participants, including venue owners, recognize Live Nation's dominance in this market. As one prior venue manager explained, "If you don't do a deal with these guys, you're going to lose shows." Live Nation as a promoter accounts for around 60% of the total face value associated with all primary tickets sold at major concert venues and more than 70% of the total face value associated with large amphitheater shows in the United States.

192. Live Nation's power over the artist promotion services market is protected by barriers to entry and expansion.

C. Artist Use of Large Amphitheaters

193. The provision of the use of large amphitheaters and ancillary services to musicians and comedians ("artists") for large amphitheater tours is also a relevant product market. "Large" amphitheaters (also known as "non-boutique amphitheaters") are recognized as a distinct type of venue in Live Nation's ordinary course documents and regular reporting and by industry participants. Large amphitheaters have unique characteristics—including capacity, sight lines, acoustics, seating, and staging—that differentiate them both from smaller amphitheaters and other venues. These unique characteristics make large amphitheaters attractive to both artists and fans in the summer months when most touring takes place, and as a result, there are artists who seek to perform several shows or even entire tours at large amphitheaters in given year. They also are attractive to artists who are not yet able to—or no longer able to—fill a larger venue, like an arena, but have outgrown smaller clubs and theaters. In a similar vein, industry participants, including Live Nation and venues, recognize that large amphitheater concerts constitute a unique business and separately analyze the business and competitive conditions.

Large amphitheaters provide artists the use of their venue plus related services, such as staging and lighting, and in exchange, the artist pays rent and performs a show that enables the venue to collect additional revenue from fans, including from food, beverage and parking. Artists either work directly with their agent, or through their chosen promoter, to communicate with venues about availability and ultimately choose the amphitheaters where they will perform.

194. The artists most impacted by Live Nation's anticompetitive conduct are those interested in performing a tour of large amphitheaters in a particular year. This includes artists seeking to perform exclusively at large amphitheaters as well as artists seeking to construct a tour that includes both a significant number of shows at large amphitheaters as well as shows at other venues.

195. Artists seeking to perform a tour of large amphitheaters will not view a tour that excludes large amphitheaters as a reasonable substitute. As described above, large amphitheaters have unique characteristics that distinguish them from other venues, and artists seeking a tour of large amphitheaters will generally not consider a tour wholly excluding large amphitheaters as a reasonable alternative. Industry participants, including Live Nation, recognize that there are artists with a specific interest in touring large amphitheaters.

196. The relevant geographic market for the use of large amphitheaters market is no broader than the United States, and there may also be smaller, regional relevant geographic markets. Artists seeking to do a large amphitheater tour often do so as part of regional or national tours across the United States. Internal Live Nation documents also support the United States as a relevant geographic market. For example, Live Nation considers the United States to be a distinct reporting segment and evaluates the business and competitive conditions in the United States separately.

197. For these and other reasons, a monopolist who controls the use of large amphitheaters in the United States would be able to maintain prices above competitive levels and/or maintain quality below the level that would prevail in a competitive market.

198. Live Nation has monopoly power in the use of large amphitheaters market. Live Nation owns, operates, or exclusively books concerts in more than 55 large amphitheaters in the United States. Live Nation's controlled venues account for at least 65% of the total number of primary tickets and face value associated with all concert tickets sold at large amphitheaters. These measures are economically relevant measures of power in this market.

199. Live Nation's monopoly power in the use of large amphitheaters market is protected by barriers to entry and expansion. Entering this market requires significant time, capital and expertise to either build a new amphitheater or sign a contract with an existing amphitheater to operate it. Building a new large amphitheater is particularly burdensome and uncertain, as it requires a potential new entrant to identify a specific location for the facility, acquire the land, secure the necessary permitting, and contract with the many vendors necessary to put on successful shows. Large amphitheaters also require access to artists to ensure financial viability. Because Live Nation routes the artists it promotes to its own existing network of amphitheaters, that makes it more difficult for a new amphitheater to attract the talent necessary to be financially viable.

VII. Jurisdiction, Venue, and Commerce

200. The United States brings this action against Live Nation and Ticketmaster pursuant to Section 4 of the Sherman Act, 15 U.S.C. § 4, to prevent and restrain Defendants' violations of Section 1 and Section 2 of the Sherman Act, 15 U.S.C. §§ 1-2.

201. The Attorneys General of the Plaintiff States, as the chief legal officers of their respective states, bring this action under their respective and independent statutory, common law,

and equitable powers, and in their quasi-sovereign capacities, to prevent anticompetitive conduct that harms competition and the economies of the Plaintiff States and the economic welfare of consumers in and from the Plaintiff States. Plaintiff States have quasi-sovereign interests in protecting consumers—from economic harm resulting from illegal anticompetitive conduct and in ensuring their economies are not suppressed by unjustified restraints of trade.

202. The Attorneys General assert these claims based on their independent authority to bring this action pursuant to Section 16 of the Clayton Act, 15 U.S.C. § 26, and common law, to prevent and restrain Live Nation's violations of Section 1 and Section 2 of the Sherman Act, 15 U.S.C. §§ 1-2. State attorneys general are specifically authorized to bring suits to secure injunctive relief for violations of the Sherman Act. 15 U.S.C. §26.

203. This Court has subject matter jurisdiction over this action under Section 4 of the Sherman Act, 15 U.S.C. § 4, Sections 4c and 16 of the Clayton Act, 15 U.S.C. §§ 15c and 26, and 28 U.S.C. §§ 1331, 1337(a), and 1345(d), and has supplemental jurisdiction under 28 U.S.C. § 1367(a).

204. The Court has personal jurisdiction over the Defendants, and venue is proper in this District under Section 12 of the Clayton Act, 15 U.S.C. § 22, and under 28 U.S.C. § 1391, because all Defendants transact business and are found within this District.

205. Defendant Live Nation is a Delaware corporation with its principal place of business at 9348 Civic Center Drive, Beverly Hills, CA 90210, and an office at 430 W. 15th Street, New York, NY 10011. Defendant Ticketmaster is a Virginia limited liability company with its principal place of business at 9348 Civic Center Drive, Beverly Hills, CA 90210. Ticketmaster operates from offices in various locations, including at 430 W. 15th Street, New York, NY 10011.

206. Each Defendant engages in, and its activities substantially affect, interstate trade and commerce. Each Defendant provides a range of products and services that are marketed, distributed, and offered to consumers throughout the United States, in the plaintiff States, across state lines, and internationally. Defendants' actions and course of conduct are ongoing and are likely to continue or recur, including through other practices with the same purpose or effect.

VIII. Violations Alleged

First Claim for Relief: Monopolization of Primary Ticketing Services Markets in Violation of Sherman Act § 2

207. Plaintiffs incorporate the allegations of Paragraphs 1 through 206 above.

208. Live Nation has monopolized several relevant markets related to primary ticketing services in the United States. These include the provision of primary ticketing services to major concert venues, the provision of primary concert ticketing services to major concert venues, and the provision of primary concert ticketing offerings to fans at major concert venues (even if combined with services that offer resale of concert tickets).

209. Each constitutes a relevant antitrust market, and Live Nation has monopoly power in each market.

210. Live Nation has unlawfully maintained its monopoly in each market through a course of exclusionary conduct, including:

- Directly threatening venues that Live Nation will divert live music shows to other venues if they do not sign with Ticketmaster;
- Indirectly threatening venues that Live Nation will divert live music shows to other venues if they do not sign with Ticketmaster by, for example, co-opting business partner Oak View Group into warning venues that they will lose Live Nation content if they contract with a ticketer other than Ticketmaster;

- Retaliating against venues that contract with rival ticketers by:
  - Diverting concerts on Live Nation-promoted tours to other venues;
  - Disabling or delaying the sale of secondary tickets through the rival ticketer's platform;
  - Refusing to publicize shows hosted by a venue that uses a competing ticketer;
  - Diverting content away from venues ticketed by companies other than Ticketmaster, making it risky for any venue to contract with a rival ticketer; and
  - Lodging complaints against rival ticketers when Live Nation promotes a show at a venue where Ticketmaster is not the primary ticketer;
- Foreclosing rival ticketing companies from the market by:
  - Imposing long-term exclusive contracts covering a significant proportion of tickets sold;
  - Engaging in strategic purchases of rival promoters and venues to enhance its market power in content and to convert ticketing to Ticketmaster, further foreclosing the primary ticketing market; and
  - Deterring entry and expansion by rivals into primary ticketing by using its monopoly to expand its control over secondary ticketing, which previously had been an entry point for primary ticketing.

211. Although each of these acts is anticompetitive when considered alongside Live Nation's associated conduct, each act occurs in concert with and against the backdrop of allegations and facts outlined throughout this Complaint. These acts have synergistic anticompetitive effects that have harmed competition and the competitive process.

212. Live Nation's exclusionary conduct has foreclosed a substantial share of each of these markets.

213. Live Nation's anticompetitive acts have had harmful effects on competition and consumers.

214. Live Nation's exclusionary conduct lacks a non-pretextual procompetitive justification that offsets the harm caused by Live Nation's anticompetitive and unlawful conduct.

215. Live Nation's anticompetitive and exclusionary practices violate Section 2 of the Sherman Act, 15 U.S.C. § 2.

Second Claim for Relief: Unlawful Exclusive Dealing in Violation of Sherman Act § 1

216. Plaintiffs incorporate the allegations of Paragraphs 1 through 206 above.

217. The provision of primary ticketing services to major concert venues in the United States is a relevant antitrust market, and the provision of primary concert ticketing services to major concert venues in the United States is a relevant antitrust market.

218. Ticketmaster's long-term exclusive agreements to provide primary ticketing services to major concert venues in the United States unreasonably restrain competition, in violation of Section 1 of the Sherman Act, 15 U.S.C. § 1.

219. These contracts exclude all competitors, are terminable only for cause, and have terms ranging from three to 14 years.

220. Ticketmaster's long-term exclusive primary ticketing contracts restrict the access of Ticketmaster's competitors to the only significant channel of distribution for primary ticketing services to major concert venues.

221. Through its long-term exclusive primary ticketing contracts, Ticketmaster has foreclosed a substantial share of the market for the provision of primary ticketing services to major concert venues in the United States.

222. Live Nation's anticompetitive acts have had harmful effects on fans of major concerts, the venues that host them, and competition for primary ticketing.

223. Live Nation's exclusionary conduct lacks a non-pretextual procompetitive justification that offsets the harm caused by Live Nation's anticompetitive and unlawful conduct.

Third Claim for Relief: Unlawful Tying Arrangement Concerning the Use of Large Amphitheaters and Artist Promotions Markets in Violation of Sherman Act § 1

224. Plaintiffs incorporate the allegations of Paragraphs 1 through 206 above.

225. The provision of the use of large amphitheaters and ancillary services to artists for large amphitheater tours in the United States is a relevant antitrust market, and Live Nation has monopoly power in that market.

226. The provision of promotion services to artists performing in major concert venues in the United States is a relevant market, and Live Nation has market power in that market.

227. The provision of the use of large amphitheaters to artists and the provision of promotion services to artists are separate services sold to artists. The services are provided in different markets, with distinct demand for each, and they are treated by industry participants as separate products. There are some industry participants, such as third-party operated amphitheaters, that only offer access to amphitheaters, and there are promoters who only offer artists promotion services.

228. Live Nation has unlawfully required artists seeking to use its large amphitheaters for shows as part of a tour to also purchase promotion services from Live Nation.

229. The purpose and effect of this tying policy is to prevent artists from choosing a promoter on the merits and instead force artists who wish to play in Live Nation amphitheaters to contract with the company for promotions services.

230. This anticompetitive conduct has significantly foreclosed competition in promotion services to artists. Artists who would otherwise choose rival promoters on the merits of those promoters must refrain from doing so to maintain use of Live Nation's amphitheaters on their tours.

231. This conduct lacks a non-pretextual procompetitive justification that offsets the harm caused by Live Nation's anticompetitive and unlawful conduct.

232. Live Nation's anticompetitive and exclusionary practices violate Section 1 of the Sherman Act, 15 U.S.C. § 1.

Fourth Claim for Relief: Monopolization of the Market for the Use of Large Amphitheaters in Violation of Sherman Act § 2

233. Plaintiffs incorporate the allegations of Paragraphs 1 through 206 above.

234. The provision of the use of large amphitheaters and ancillary services to artists for large amphitheater tours in the United States is a relevant antitrust market, and Live Nation has monopoly power in that market.

235. Live Nation has unlawfully maintained its monopoly in this market through a course of anticompetitive exclusionary conduct, including:

- Entering into exclusive booking arrangements with venues, enabling Live Nation to extend its control of this market beyond the significant share it controls through its owned, operated, and leased amphitheaters;
- Acquiring control over several amphitheaters, enabling Live Nation to extend its control of this market through its portfolio of owned and operated amphitheaters;

- Acquiring several competing promotion companies that either owned amphitheaters or had exclusive booking contracts with amphitheaters; and
- Acquiring numerous large festivals, further reducing the ability of artists on large amphitheater tours to seek alternatives to Live Nation. These exclusionary acts have harmed artists, rival promoters, and fans.

236. Although each of these acts is anticompetitive when considered alongside Live Nation's associated conduct, each act occurs in concert with and against the backdrop of allegations and facts outlined throughout this Complaint. These acts have synergistic anticompetitive effects that have harmed competition and the competitive process.

237. Live Nation's exclusionary conduct has foreclosed a substantial share of the market.

238. Live Nation's anticompetitive acts have had harmful effects on competition and consumers.

239. Live Nation's conduct lacks any procompetitive benefits or justification that offsets the significant anticompetitive harm that flows from the exclusionary conduct.

240. Live Nation's anticompetitive and exclusionary practices violate Section 2 of the Sherman Act, 15 U.S.C. § 2.

Fifth Claim for Relief: Monopolization of the Markets for Concert Promotion Services in Violation of Sherman Act § 2

241. Plaintiffs incorporate the allegations of Paragraphs 1 through 206 above.

242. The provision of concert booking and promotion services to major concert venues and the provision of promotion services to artists performing in major concert venues in the United States are related, relevant antitrust markets, and Live Nation has monopoly power in each market.

243. Live Nation has unlawfully maintained its monopoly in each market through a course of exclusionary conduct described herein, including:

- Engaging in strategic purchases of rival promoters (actual or potential) and venues to enhance and entrench its monopoly power;
- Tying artists' use of Live Nation owned, controlled and exclusively-booked large amphitheaters to their purchase of promotional services from Live Nation;
- Deterring entry and expansion by rivals by threatening potential rivals and their investors; and
- Imposing restrictive terms in contracts with major concert venues that undermine and foreclose competition from actual and potential rival promoters.

244. Although each of these acts is anticompetitive when considered alongside Live Nation's associated conduct, each act occurs in concert with and against the backdrop of allegations and facts outlined throughout this Complaint. These acts have synergistic anticompetitive effects that have harmed competition and the competitive process.

245. Live Nation's exclusionary conduct has foreclosed a substantial share of each market.

246. Live Nation's anticompetitive acts have had harmful effects on competition and consumers.

247. Live Nation's exclusionary conduct lacks a non-pretextual procompetitive justification that offsets the harm caused by Live Nation's anticompetitive and unlawful conduct.

248. Live Nation's anticompetitive and exclusionary practices violate Section 2 of the Sherman Act, 15 U.S.C. § 2.

Sixth Claim for Relief: Violation of Arkansas Law

249. Plaintiff State of Arkansas incorporates the allegations of Paragraphs 1 through 248 above.

250. Plaintiff State of Arkansas brings this action in its sovereign capacity pursuant to Ark. Code Ann. § 4-75-212(a) and its *parens patriae* capacity pursuant to Ark. Code Ann. § 4-75-212(b) and Ark. Code Ann. § 4-75-315(b).

251. Defendants' acts as alleged herein violate Arkansas's prohibition on monopolies under Ark. Code Ann. §§ 4-75-301 *et seq.*, and Unfair Practices Act, Ark. Code Ann. §§ 4-75-201 *et seq*.

252. Plaintiff State of Arkansas is entitled to and seeks all remedies available at law or in equity, including, without limitation, the following:

a. A declaratory judgment, pursuant to Ark. Code Ann. § 4-75-212(a)(1) and Ark. Code Ann. § 4-75-315(a)(1), that Defendants' acts and practices as described in this Complaint violate Arkansas's Unfair Practices Act and its prohibition on monopolies;

b. Permanent injunctions against Defendants, pursuant to Ark. Code Ann. § 4-75-212(a)(2) and Ark. Code Ann. § 4-75-315(a)(2), enjoining Defendants from engaging in any act that violates Arkansas's Unfair Practices Act and its prohibition on monopolies, including but not limited to the unfair methods of competition alleged herein;

c. Damages for injuries sustained or restitution for loss as a result of violations of Arkansas antitrust statutes pursuant to Ark. Code Ann. § 4-75-212(b)(1)(A) and Ark. Code Ann. § 4-75-315(b)(1);

d. Civil penalties pursuant to Ark. Code Ann. § 4-75-212(a)(4) and Ark. Code Ann. § 4-75-315(a)(4);

e. Costs and attorneys' fees pursuant to Ark. Code Ann. § 4-75-212(a)(4) and Ark. Code Ann. § 4-75-315(a)(4); and

f. All other just and equitable relief that this Court may deem appropriate.

Seventh Claim for Relief: Violation of California Law

253. The State of California incorporates the allegations of Paragraphs 1 through 248 above.

254. Defendants' acts and practices detailed above also violate California's Unfair Competition Law ("UCL"), Cal. Bus. & Prof. Code § 17200, et seq., which prohibits any unlawful, unfair, or fraudulent business act or practice.

255. In bringing its state claims, Plaintiff State of California is entitled to, without limitation, the following relief:

a. Injunctive, restitution and other equitable relief under the UCL (Cal. Bus. & Prof. Code § 17203); and

b. Civil penalties assessed at up to $2,500 for each violation of the UCL (Cal. Bus. & Prof. Code § 17206).

Eighth Claim for Relief: Violation of District of Columbia Law

256. The District of Columbia incorporates the allegations of Paragraphs 1 through 248 above.

257. The Attorney General for the District of Columbia brings this action pursuant to D.C. Code § 28-4501, *et seq.* and 15 U.S.C. § 12, *et seq.*

258. Defendants' conduct alleged herein constitutes unlawful monopolization within the District of Columbia under D.C. Code § 28-4503.

259. Defendants' conduct alleged herein constitutes unlawful combination in restraint of trade within the District of Columbia under D.C. Code § 28-4502.

260. The District of Columbia seeks all remedies available under federal law and the District of Columbia Antitrust Act, D.C. Code § 28-4507.

261. The District of Columbia is also entitled to recover its costs and attorney's fees under D.C. Code § 28-4507(a)(2)(B).

Ninth Claim for Relief: Violation of Florida Law

262. Plaintiff State of Florida incorporates the allegations of Paragraphs 1 through 248 above.

Florida Antitrust Act

263. This is an action against Defendants for their violation of the Florida Antitrust Act, Sections 542.18 and 542.19, Florida Statutes.

264. Defendants engaged in a wide-ranging anticompetitive and exclusionary course of conduct within Florida.

265. The acts and practices within Defendants' wide-ranging anticompetitive and exclusionary course of conduct alleged herein constitute violations of the Florida Antitrust Act;

266. The State of Florida seeks all legal and equitable remedies available for violations of the Florida Antitrust Act, Sections 542.18 and 542.19, Florida Statutes.

267. Defendants' anticompetitive acts alleged herein, or the effects thereof, are continuing and will continue and are likely to recur unless permanently restrained and enjoined.

Florida Deceptive and Unfair Trade Practices Act

268. This is an action against Defendants for their violation of the Florida Deceptive and Unfair Trade Practices Act, Section 501.204, Florida Statutes.

269. Defendants engaged in a wide-ranging anticompetitive and exclusionary course of conduct within Florida.

270. Defendants' unfair methods of competition alleged herein involve trade or commerce within the meaning of the Florida Deceptive and Unfair Trade Practices Act.

271. The acts and practices within Defendants' wide-ranging anticompetitive and exclusionary course of conduct alleged herein constitute unfair methods of competition in violation of the Florida Deceptive and Unfair Trade Practices Act, Section 501.204, Florida Statutes.

272. The State of Florida seeks all legal and equitable remedies available for violations of the Florida Deceptive and Unfair Trade Practices Act, Section 501.204, Florida Statutes.

273. Defendants' unfair methods of competition alleged herein, or the effects thereof, are continuing and will continue and are likely to recur unless permanently restrained and enjoined.

Florida's Prayer for Relief

274. Award to the State of Florida all legal and equitable remedies available for violations of the Florida Deceptive and Unfair Trade Practices Act, Section 501.204, Florida Statutes;

275. Award to the State of Florida all legal and equitable remedies available for violations of the Florida Antitrust Act, Sections 542.18 and 542.19, Florida Statutes;

276. Adjudge and decree that Defendants violated Sections 542.18, and 542.19, Florida Statutes;

277. Adjudge and decree that Defendants violated Section 501.204, Florida Statutes;

278. Enjoin and restrain, pursuant to Florida law, Defendants, their affiliates, assignees, subsidiaries, successors, and transferees, and their officers, directors, partners, agents and employees, and all other persons acting or claiming to act on their behalf or in concert with

them, from continuing to engage in any anticompetitive conduct, and from adopting in the future any practice, plan, program, or device having a similar purpose or effect to the anticompetitive actions set forth above.

Tenth Claim for Relief: Violation of Illinois Law

279. Plaintiff State of Illinois incorporates the allegations of Paragraphs 1 through 248 above.

280. Defendants' acts alleged herein violate Section 3 of the Illinois Antitrust Act, 740 ILCS 10/3(1)-(4).

281. These violations substantially affect the people who reside in Illinois and companies that conduct business in Illinois and have impacts within the State of Illinois.

282. Plaintiff State of Illinois, through its Attorney General, requests that the Court remedy these illegal acts, seeks all available relief as well as civil penalties under 740 ILCS 10/7.

283. Plaintiff State of Illinois, through its Attorney General, also seeks to recover its costs and attorneys' fees under 740 ILCS 10/7(2).

Eleventh Claim for Relief: Violation of Maryland Law

284. Plaintiff State of Maryland incorporates the allegations of Paragraphs 1 through 248 above.

285. The Defendants' acts violate the Maryland Antitrust Act, MD Commercial Law Code Ann. § 11-201 *et seq.* These acts have substantially lessened competition and have anticompetitive effects within the State of Maryland.

286. Plaintiff State of Maryland is entitled to all remedies available at law or in equity (including, but not limited to, damages, injunctive relief, restitution, and divestiture) under Maryland Commercial Law Code Ann. § 11-209. In addition, the Court may assess civil penalties, costs, and reasonable attorneys' fees.

Twelfth Claim for Relief: Violation of Michigan Law

287. Plaintiff State of Michigan incorporates the allegations of Paragraphs 1 through 248 above.

288. The acts alleged in the Complaint violate the Michigan Antitrust Reform Act, MCL 445.771, *et seq.*

289. The Attorney General brings this suit in the name of the State of Michigan and on behalf of the people of the State of Michigan in her *parens patriae* capacity.

290. The acts alleged in the Complaint constitute the establishment, maintenance, or use of a monopoly, or any attempt to establish a monopoly, of trade or commerce in a relevant market by any person, for the purpose of excluding or limiting competition or controlling, fixing, or maintaining prices, pursuant to MCL 445.773.

291. Michigan seeks all legal and equitable relief authorized by MCL 445.777 and MCL 445.778.

Thirteenth Claim for Relief: Violation of Minnesota Law

292. Plaintiff State of Minnesota incorporates the allegations of Paragraphs 1 through 248 above.

293. Defendants' acts as alleged herein violate the Minnesota Antitrust Law of 1971, Minnesota Statutes sections 325D.49 to 325D.66. These violations substantially affect the people of Minnesota and have impacts within the State of Minnesota, including anticompetitive harms, such as increased prices, increased costs, and reduced quality.

294. Plaintiff State of Minnesota seeks relief, including but not limited to the following:

a. Enjoining Defendants and their employees, officers, directors, agents, successors, assignees, affiliates, merged or acquired predecessors, parents, or controlling

entities, subsidiaries, and all other persons acting in concert or participation with them from engaging in conduct in violation of Minnesota Statutes sections 325D.49-66;

b. Awarding judgment against Defendants for civil penalties pursuant to Minnesota Statutes sections 8.31, subd. 3, and 325D.56; and

c. Costs and reasonable attorneys' fees under Minnesota Statutes sections 325D.57 and 8.31, subd. 3a.

Fourteenth Claim for Relief: Violation of Nevada Law

Violations of Nevada Unfair Trade Practices Act

295. The State of Nevada incorporates the allegations of Paragraphs 1 through 248 above.

296. The Defendants' conduct in the course of selling tickets, booking and promoting live entertainment shows, and operating concert venues in the State of Nevada has been unlawful, exclusionary and anticompetitive, as described in detail above, and has harmed fans, venues, promoters and artists throughout the State of Nevada.

297. Live Nation's unlawful maintenance of its monopoly power in each of the various antitrust markets identified in Section VI through anticompetitive and exclusionary conduct, also constitute violations of Nevada law pursuant to the Nevada Unfair Trade Practices Act, Nev. Rev. Stat. § 598A.010, *et seq*. See specifically Nev. Rev. Stat. § 598A.060 – Prohibited Acts.

298. The State of Nevada seeks all remedies available under federal law and the Nevada Unfair Trade Practices Act including, without limitation, the following:

a. Civil penalties pursuant to Nev. Rev. Stat. § 598A.170, which provides for "an amount not to exceed 5 percent of the gross income realized by the sale of commodities or services sold by such persons in this state in each year in which the prohibited activities occurred";

b. Damages for natural persons residing in Nevada that were damaged directly or indirectly by the defendants' conduct, pursuant to Nev. Rev. Stat. § 598A.160;

c. Injunctive relief pursuant to Nev. Rev. Stat. § 598A.070(c)(1);

d. Disgorgement, restitution and other equitable relief as provided by Nev. Rev. Stat. § 598A.070(c)(4);

e. Costs and attorney's fees pursuant to Nev. Rev. Stat. § 598A.200; and

f. Any other remedies the court may deem appropriate under the facts and circumstances of the case.

Fifteenth Claim for Relief: Violation of New Hampshire Law

299. Plaintiff State of New Hampshire incorporates the allegations of Paragraphs 1 through 248 above.

300. The Defendants' acts violate the New Hampshire Combinations and Monopolies Act, NH RSA 356 *et seq*. These acts have substantially lessened competition and have anticompetitive effects within the State of New Hampshire.

301. Plaintiff State of New Hampshire is entitled to all remedies available at law or in equity (including damages, injunctive relief, restitution, and divestiture) under NH RSA 356 *et seq*. In addition, the Court may assess civil penalties, costs, and reasonable attorneys' fees.

Sixteenth Claim for Relief: Violation of New Jersey Law

302. Plaintiff State of New Jersey repeats and realleges and incorporates by reference Paragraphs 1 through 248 of this Complaint as if fully set forth herein.

303. The New Jersey Antitrust Act, N.J.S.A. 56:9-3, states: "It shall be unlawful for any person to monopolize, or attempt to monopolize, or to combine or conspire with any person or persons, to monopolize trade or commerce in any relevant market within this State."

304. N.J.S.A. 56:9-4(a) of the New Jersey Antitrust Act, states: "Every contract, combination in the form of trust or otherwise, or conspiracy in restraint of trade or commerce, in this State, shall be unlawful."

305. In the operation of its businesses, Defendant engaged in numerous commercial practices that violate the New Jersey Antitrust Act, N.J.S.A. 56:9-1 to -19, including monopolizing trade or commerce in relevant markets within the State of New Jersey, in violation of N.J.S.A. 56:9-3; and have engaged in conduct constituting restraint of trade or commerce in relevant markets within the State of New Jersey, in violation of N.J.S.A. 56:9-4(a).

306. Each violation of the New Jersey Antitrust Act by Defendant constitutes a separate unlawful practice and violation, under N.J.S.A. 56:9-16.

307. To restore competition to the affected markets, New Jersey seeks all remedies available under the New Jersey Antitrust Act, N.J.S.A. 56:9-1 to -19, and/or Section 16 of the Clayton Act including, without limitation, the following:

308. Divestiture of Ticketmaster and/or venues owned or operated by Live Nation Entertainment, pursuant to N.J.S.A. 56:9-7 and/or Section 16 of the Clayton Act;

309. Injunctive and other equitable relief prohibiting Defendant's wrongful conduct, pursuant to N.J.S.A. 56:9-10(a);

310. Equitable monetary relief to remedy Defendant's unlawful conduct, pursuant to N.J.S.A. 56:9-10(b);

311. Civil penalties of not more than the greater of $100,000 or $500 per day for each and every day of said violation against Defendant, pursuant to N.J.S.A. 56:9-10(c);

312. Costs and attorney's fees, pursuant to N.J.S.A. 56:9-12; and

313. Other remedies as the Court may deem appropriate and the interests of justice may require.

Seventeenth Claim for Relief: Violation of New York Law

314. Plaintiff State of New York incorporates the allegations of Paragraphs 1 through 248 above.

315. Defendants' acts as alleged in this Complaint violate New York's Donnelly Act, New York General Business Law §§ 340 *et seq.*, by contracts, agreements, arrangements or combinations that result in the establishment or maintenance of a monopoly and/or by restraining competition.

316. Defendants' acts alleged in this Complaint also violate Section 63(12) of New York's Executive Law, in that Defendants have engaged in repeated and/or persistent illegal acts, including violations of Sections 1 and 2 of the Sherman Act, as well as violations of the Donnelly Act.

317. To restore competition to the affected markets, New York seeks equitable relief, including an injunction prohibiting Defendants' wrongful conduct, as well divestitures of Ticketmaster and venues owned or operated by Live Nation Entertainment, pursuant to Section 16 of the Clayton Act, New York General Business Law § 342 and/or Section 63(12) of the New York Executive Law.

318. New York also seeks equitable monetary relief to deter and remedy Defendants' unlawful conduct pursuant to Section 63(12) of the New York Executive Law.

319. New York seeks also civil penalties of $1,000,000 per violation against each defendant, pursuant to New York Business Law § 342-a, as well as fees and costs pursuant to federal and state law.

Eighteenth Claim for Relief: Violation of Ohio Law

Violations of Ohio's Valentine Act Against All Defendants

320. Plaintiff State of Ohio incorporates the allegations of Paragraphs 1 through 248 above.

321. Defendants Live Nation Entertainment, Inc. and Ticketmaster L.L.C. contract with and provide live entertainment services and commodities to Ohio businesses and consumers.

322. Plaintiff brings this action pursuant to Ohio Rev. Code § 109.81 and Ohio Rev. Code Chapter 1331.

323. Plaintiff, having reasonable cause to believe that violations of Ohio's antitrust laws have occurred, brings this action in his sovereign capacity pursuant to Ohio Rev. Code §109.81 to enforce Ohio law.

324. Defendants, by and through their officers, directors, employees, agents, or other representatives, have engaged in a combination of capital, skill, or acts to create or carry out restrictions in trade or commerce in violation of Ohio's Valentine Act, codified in Ohio Rev. Code Chapter 1331.

325. Defendants' collective and individual activities detailed above, including the vertical arrangements, constitute Trusts under Ohio Rev. Code § 1331.01(C)(1)(a), (b), and (e) and are thus illegal under Ohio's Valentine Act.

326. The purposes or effects of Defendants' Trusts are to decrease competition, raise prices, and/or stifle innovation in all of the alleged relevant markets. Ohio Rev. Code § 1331.09.

327. This complaint constitutes due notice of these violations under Ohio Rev. Code § 1331.03.

328. Plaintiff seeks the following remedies pursuant to Ohio Rev. Code § 109.81 and Chapter 1331:

a. Civil forfeiture pursuant to Ohio Rev. Code § 1331.03;

b. Relief permanently enjoining Defendants Live Nation Entertainment, Inc. and Ticketmaster L.L.C. from engaging in any acts that violate Ohio's Valentine Act;

c. Costs, attorneys' fees, and interest; and

d. Other remedies the court may deem appropriate according to the facts and circumstances of the case.

Nineteenth Claim for Relief: Violation of Oregon Law

329. Plaintiff State of Oregon incorporates the allegations of Paragraphs 1 through 248 above.

330. Defendants' acts as alleged herein violate the Oregon Antitrust Act, Oregon Revised Statutes 606.705 *et seq*. These violations substantially affect the people of Oregon and have impacts within the State of Oregon.

331. Plaintiff State of Oregon seeks relief, including but not limited to the following:

a. Enjoining Defendants and their employees, officers, directors, agents, successors, assignees, affiliates, merged or acquired predecessors, parents, or controlling entities, subsidiaries, and all other persons acting in concert or participation with them from engaging in conduct in violation of Oregon Revised Statutes 646.705 *et seq*.;

b. Awarding judgment against Defendants for civil penalties for each of the first through fifth claims above pursuant to Oregon Revised Statues 646.760;

c. Costs and reasonable attorneys' fees under Oregon Revised Statutes 646.760; and

d. All legal and equitable remedies available under federal law and Oregon's

Antitrust Act, ORS 646.705 *et seq.*, and any additional relief as the court finds just and proper.

Twentieth Claim for Relief: Violation of Rhode Island Law

332. The state of Rhode Island incorporates the allegations of Paragraphs 1 through 248 above.

333. The acts alleged in causes of action 1–5 also constitute antitrust violations pursuant to the Rhode Island Antitrust Act, R.I. Gen. L. §§ 6-36-1, *et seq*.

334. Rhode Island seeks all remedies available under federal law or the Rhode Island Antitrust Act including, without limitation, the following:

a. Civil penalties pursuant to R.I. Gen. L. 6-36-10(c), which provides that "any person who violates this chapter may be liable for a civil penalty of not more than fifty thousand dollars ($50,000) for each violation;"

b. Injunctive and other equitable relief pursuant to R.I. Gen. L. § 6-36;

c. Costs and attorney's fees pursuant to § 6-36-11(a); and

d. Other remedies as the court may deem appropriate under the facts and circumstances of the case.

Twenty-first Claim for Relief: Violation of South Carolina Law

335. Plaintiff State of South Carolina incorporates the allegations of Paragraphs 1 through 248 above. Each allegation is brought separately against each Defendant.

336. The Attorney General of South Carolina is bringing this action in the name of the State pursuant to S.C. Code § 39-5-50.

337. At all times described herein, the Defendants were engaged in conduct which constitutes "trade" and "commerce" as defined in S.C. Code § 39-5-10(b).

338. Defendants' acts or practices regarding South Carolina consumers as alleged herein are capable of repetition and affect the public interest.

339. Defendants' acts or practices alleged herein constitute "unfair methods of competition" under S.C. Code § 39-5-20. Every unfair act or practice by each Defendant constitutes a separate and distinct violation of S.C. Code § 39-5-20.

340. Defendants' acts or practices alleged herein are offensive to established public policy, immoral, unethical, or oppressive.

341. At all times Defendants knew or should have known their conduct violated S.C. Code § 39-5-20 and, therefore, the conduct is willful for purposes of S.C. Code § 39-5-110, justifying civil penalties.

342. Plaintiff State of South Carolina seeks all remedies available under the South Carolina Unfair Trade Practices Act (SCUTPA) including, without limitation, the following:

a. Permanently enjoin Defendants pursuant to S.C. Code § 39-5-50(a) from engaging in any acts that violate SCUTPA, including, but not limited to, the unfair methods of competition and unfair or deceptive acts or practices alleged herein;

b. Civil penalties in the amount of $5,000, pursuant to S.C. Code § 39-5-110(a), for every willful violation of SCUTPA;

c. Ascertainable loss damages as determined by the Court under S.C. Code § 39-5-50(b);

d. Costs and attorneys' fees pursuant to S.C. Code § 39-5-50(a) and S.C. Code § 1-7-85; and

e. All other legal and equitable relief as the court may deem appropriate under the facts and circumstances of the case.

Twenty-second Claim for Relief: Violation of Tennessee Law

343. Plaintiff State of Tennessee incorporates the allegations of Paragraphs 1 through 248 above.

344. Defendants engaged in the conduct described above while selling tickets, promoting shows, and operating venues in Tennessee. This anticompetitive conduct in Tennessee harmed thousands of fans, venues, promoters, and artists across the state.

345. As a result of this conduct, and the concomitant reduction in competition in the relevant markets, Tennesseans and Tennessee businesses have suffered anticompetitive harms, including increased prices, increased costs, and reduced quality.

346. This conduct has affected Tennessee commerce to a substantial degree.

347. Accordingly, Defendants' actions violate the Tennessee Trade Practices Act, Tenn. Code Ann. §§ 47-25-101 *et seq.*, as amended.

348. To remedy this anticompetitive conduct, the Tennessee Attorney General and Reporter seeks all legal and equitable relief to which it is entitled at law and equity.

Twenty-third Claim for Relief: Violation of Texas Law

349. Plaintiff State of Texas repeats and realleges the allegations of Paragraphs 1 through 248 above. Each allegation is brought separately against each Defendant.

350. The aforementioned practices by Defendants Live Nation Entertainment, Inc. and Ticketmaster L.L.C. were and are in violation of Texas Business and Commerce Code § 15.01 et seq.

351. Plaintiff State of Texas has reason to believe that Defendants have engaged in, and will continue to engage in, the anticompetitive and exclusionary course of conduct set forth herein, has caused and will cause adverse effects to consumers and harm to economic competition in trade and commerce in this State, and will cause damage to the State of Texas and

to persons in the State of Texas. Therefore, the Antitrust Division of the Office of the Attorney General of the State of Texas believes and is of the opinion that this matter is in the public interest.

352. The State of Texas requests a judgment that the Defendants engaged in conduct in violation of Texas Business and Commerce Code § 15.01 et seq.

353. The State of Texas requests a civil fine up to the maximum amount allowed pursuant to Texas Business and Commerce Code § 15.20(a).

354. The State of Texas requests the issuance of a permanent injunction to enjoin any activity or contemplated activity that violates or threatens to violate any of the prohibitions in § 15.05 pursuant to the Texas Business and Commerce Code § 15.20(b).

355. The State of Texas requests its costs of this suit, including attorneys' fees, pursuant to Section 15.20(b) of the Texas Business and Commerce Code and Section 402.006 of the Texas Government Code.

Twenty-fourth Claim for Relief: Violation of Virginia Law

356. Plaintiff Commonwealth of Virginia incorporates the allegations of Paragraphs 1 through 248 above.

357. In addition to violating federal law, Defendants' acts described above violate the Virginia Antitrust Act, Va. Code § 59.1-9.1 *et seq.*

358. Defendants engaged in the conduct described above while selling tickets, promoting concerts, and operating venues in Virginia. This anticompetitive conduct harmed fans, venues, promoters, and artists across the Commonwealth and affected commerce therein.

359. Plaintiff Commonwealth of Virginia is entitled to legal and equitable remedies for the claims alleged above, including but not limited to civil penalties under Va. Code § 59.1-9.11

and other remedies (including recovery of costs and attorney's fees) under Va. Code § 59.1-9.15, in addition to the remedies available to it under federal law as alleged above.

Twenty-fifth Claim for Relief: Violation of Washington Law

360. The state of Washington incorporates the allegations of Paragraphs 1 through 248 above.

361. The acts alleged in the claims for relief also constitute antitrust violations pursuant to the Washington Consumer Protection Act under Wash. Rev. Code § 19.86.030 (2024) and § 19.86.040 (2024).

362. Washington seeks all injunctive remedies available under federal law.

363. Washington seeks the following remedies available under the Washington Consumer Protection Act including, without limitation, the following:

a. That the Court adjudge and decree the conduct alleged in the complaint to be unlawful and in violation of the Washington Consumer Protection Act, Wash. Rev. Code § 19.86.030 (2024) and § 19.86.040 (2024).

b. Injunctive and other equitable relief pursuant to Wash. Rev. Code § 19.86.080 (2024);

c. Disgorgement and restitution pursuant to Wash. Rev. Code § 19.86.080 (2024);

d. Civil penalties pursuant to Wash. Rev. Code § 19.86.140 (2024);

e. Costs and attorney's fees pursuant to Wash. Rev. Code § 19.86.080 (2024); and

f. Other remedies, including pre-judgment interest, as the court may deem appropriate under the facts and circumstances of the case.

Twenty-sixth Claim for Relief: Violation of West Virginia Law

364. Plaintiff State of West Virginia incorporates the allegations of Paragraphs 1 through 248 above.

365. Defendants' acts described above violate the West Virginia Antitrust Act, *see* W. Va. Code § 47– 18–1 *et seq*. These violations substantially affected the State of West Virginia and had impacts within the State of West Virginia.

366. Plaintiff State of West Virginia is entitled to all remedies available at law or in equity (including damages, injunctive relief, disgorgement, restitution, and reimbursement), as well as civil penalties under West Virginia Code § 47–18–1 *et seq*.

367. Plaintiff State of West Virginia also is entitled to recover its costs and attorneys' fees under West Virginia Code §§ 47–18–8, -9, and -17.

Twenty-seventh Claim for Relief: Violation of Wisconsin Law

368. Plaintiff State of Wisconsin repeats and re-alleges and incorporates by reference the allegations of Paragraphs 1 through 248 above as if fully set forth herein.

369. The aforementioned practices by Defendants violate Wisconsin's Antitrust Act, Wis. Stat. Ch. § 133.03 *et seq.* These violations substantially affect the people of Wisconsin and have impacts within the State of Wisconsin.

370. Plaintiff State of Wisconsin, through its Attorney General and under its antitrust enforcement authority in Wis. Stat. Ch. 133, is entitled to all remedies available under Wis. Stat. §§ 133.03, 133.16, 133.17, and 133.18.

IX. Request for Relief

371. To remedy these illegal acts, Plaintiffs request that the Court:

a. Adjudge and decree that Live Nation has acted unlawfully to maintain its monopoly in the markets for the provision of primary ticketing services to major concert

venues, the provision of primary concert ticketing services to major concert venues, and the provision of primary concert ticketing offerings to fans at major concert venues (even if combined with services that offer resale of concert tickets), in violation of Section 2 of the Sherman Act, 15 U.S.C. § 2 and the state laws cited in paragraphs 249 through 370 above;

b. Adjudge and decree that Live Nation has acted unlawfully by entering into long-term exclusive primary ticketing contracts with major concert venues that unreasonably restrain trade in the United States in violation of Section 1 of the Sherman Act, 15 U.S.C. § 1 and the state laws cited in paragraphs 249 through 370 above;

c. Adjudge and decree that Live Nation has acted unlawfully by tying artists' use of Live Nation owned, controlled and exclusively-booked large amphitheaters to their purchase of promotional services from Live Nation in violation of Section 1 of the Sherman Act, 15 U.S.C. § 1 and the state laws cited in paragraphs 249 through 370 above;

d. Adjudge and decree that Live Nation has acted unlawfully to maintain its monopoly in the market for the provision of the use of large amphitheaters and ancillary services to artists on large amphitheater tours, in violation of Section 2 of the Sherman Act, 15 U.S.C. § 2 and the state laws cited in paragraphs 249 through 370 above;

e. Adjudge and decree that Live Nation has acted unlawfully to maintain its monopoly in the markets for the provision of concert booking and promotion services to major concert venues and the provision of promotion services to artists performing in major concert venues, in violation of Section 2 of the Sherman Act, 15 U.S.C. § 2 and the state laws cited in paragraphs 249 through 370 above;

f. Order the divestiture of, at minimum, Ticketmaster, along with any additional relief as needed to cure any anticompetitive harm;

g. Order the termination of Live Nation's ticketing agreement with Oak View Group;

h. Enjoin Live Nation from continuing to engage in anticompetitive practices described herein and from engaging in other practices with the same purpose and effect as the challenged practices;

i. Enter any other preliminary or permanent relief necessary and appropriate to restore competitive conditions in the markets affected by Live Nation's unlawful conduct;

j. Award any additional relief in law or equity the Court finds just and proper; and

k. Award each Plaintiff, as applicable, an amount equal to its costs, including reasonable attorneys' fees, incurred in bringing this action.

X. Demand for a Jury Trial

372. Pursuant to Federal Rule of Civil Procedure 38(b), Plaintiffs demand a trial by jury of all issues properly triable to a jury in this case.

Dated this 23d day of May, 2024.

Respectfully submitted,

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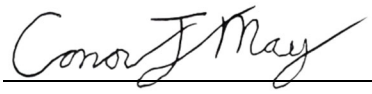

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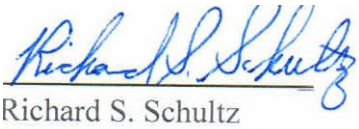
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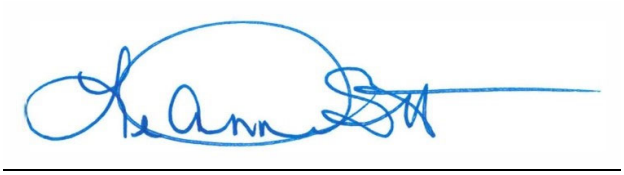

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Subject: Bureau case LU 23-111784 CU AD

hearingsofficeclerks@portlandoregon.gov

TO:
Hearings Officer
William Guzman

Reference: Bureau case LU 23-111784 CU AD

I would like to submit the following on the record for this case.

Zoning/Permit use specifically: A large corporate entity like Live Nation should not need to make adjustments before the site has even begun work. To start off by decreasing bike parking while shifting truck parking to on-street parking says that they are already looking at how to cut corners. Then decreasing their ecoroof coverage, which does not meet Portland's requirement, is a disgrace. It's 2024 and the affects of the climate crisis are already being felt in Portland in a major way, with increased heat in the summer and growing snow accumulation in the winter, now is not to time to diminish important steps for improvement. City code requires ecoroof percentage and the fact that the applicant is already looking to decrease that amount begs the question: if we just allow an adjustment to the requirement, then what is the point of having a requirement? Decreasing the eco roof from 14,600sqft to 2,100sqft means that the requirement is not near to being met and it has not been proven that these other mitigation efforts like planters will make up an equal effect of the remaining 85% of the ecoroof requirement. These mitigations do not effectively meet the intention of the eco roof requirement and this proposal should be rejected.

Traffic/Transit/Trains: In the area where this site is located, there is permitted zoned parking (Zone G or N). I used to work in the area and can confirm that there are more permits issued than there are actual parking spots to match. It's naive to expect this venue not to be impacted by that, given artists/buses/trucks arrive on site early in the morning and stay for at least a day if not more, depending on the number of shows booked. Fans also tend to arrive early out of excitement to see their favorite artist, which will certainly impact parking in the surrounding streets. Employees in the area already struggle to find parking for the businesses already established. Add on top of that the customers shopping at said businesses, I just do not see how it is even remotely possible for the applicant to believe they will not have any affect on daytime parking in the area. Your assessment that 915 parking spots will be needed for a sold out weekday/weekend show of 3500 capacity is misguided. What is that based on? At the Moda Center, for a sold out show, the parking lots are full. That venue is at a major transit center and in the midst of a bikeway, yet the majority of attendees still drive. Not to mention, the traffic that gets backed up on to the I-5 is already a fiasco. Also worth noting, there is no public transportation to Water Avenue. In order to access public transit, an attendee will have to either cross the bridge to downtown or cross the train tracks to get to Grand Ave for bus access as there is no MAX service here. Yet this plan states "Event attendees and employees who utilize transit for travel to and from the venue would primarily utilize SE Water Avenue, SE Salmon Street and the Eastbank Esplanade to access transit services before and after events." TriMet does not service SE Water or SE Salmon or SE Main Streets.

I also understand that this proposed venue does not abut the train tracks and therefore do not need to consider them in the planning stages. That is a foolish assessment of the area in question. Freight trains go thru this area every day, sometimes at slow speed and sometimes faster. They

often stop and remain stationary for an indeterminate amount of time. If a concert gets out at 11pm and the train is sitting there for 30 minutes, do you expect people not to cross the tracks to get to their cars? What considerations has the proposed development taken in regarding traffic flow and grid lock with the train? I have personally experienced the effects of the train being stopped for up to 40 minutes. Imagine 3,500 people trying to get to a concert or a band is trying to get to a venue to set up for sound check and the train is stopped. I imagine this causing stress and chaos on both ends. BEAM Development and Colas Development Group, as city planners, must take into account that the train tracks are a major point of concern with this location. Expecting 3500 people to fill the sidewalks and unsafe streets, while passing over live freight train tracks is irresponsible at best.

Live Nation / Ticketmaster the monopoly: My final point is with regard to the applicants intent with Live Nation. It was stated during the hearing that the company should not matter - this company must matter. If Project 2025 wanted to open a headquarters in Portland, I think that would matter. If the Proud Boys wanted to open a community center at this location, I believe that would matter. Wal-Mart has previously tried to open in central Portland and that mattered. Trader Joe's tried to open a location on NE MLK Jr Blvd & Alberta and that mattered. Live Nation is currently under investigation by the Department of Justice, a lawsuit that Oregon has joined onto. How does *that* not matter? In May this year, the U.S. Justice Department accused Live Nation of operating an illegal monopoly. The company represents hundreds of artists, controls almost 350 venues, and runs Ticketmaster, the world's largest ticket vendor, which gives it monopoly power, the DOJ charged in its lawsuit. "The result is that fans pay more in fees, artists have fewer opportunities to play concerts, smaller promoters get squeezed out and venues have fewer real choices for ticketing services," U.S. Attorney General Merrick Garland has said. "Oregon has joined a group of 29 states in a federal lawsuit against Ticketmaster and its owner [Live Nation] over an alleged entertainment industry monopoly that harms customers." Oregon's own attorney general, Ellen Rosenblum, said the suit is a "big deal" for Oregonians. "We're joining this lawsuit because Live Nation stifles innovation, limits consumer choices, inflates prices and piles on excessive fees – and we want those practices to end." How can Oregon join in this lawsuit while at the same time welcoming the same company into our city? The land beneath the proposed venue is owned by the city's quasi-governmental, nonprofit economic and urban development agency, Prosper Portland, which bought the long-abandoned lots in 2016 from the state's transport department for just shy of $3m, using *public* dollars. Now this proposal for a piece of pseudo-public land with a development that was not approved by any committee, with minimal public input, featuring an out-of-state, multinational conglomerate that has a bad track record. This sends a mixed message to the voters, citizens, and taxpayers of Portland, Oregon.

I must also mention the data breach under Live Nation / Ticketmaster, for which they are also being currently sued. For background, 560million customers had sensitive information leaked, which includes "full names, addresses, email addresses, phone numbers, ticket sales and event details, order information, and partial payment card data," which includes "the last four digits of card numbers, expiration dates, and even customer fraud details," the lawsuit stated. "When companies face no competition, they're disincentivized to deliver the best product or service – in this case, by failing to protect highly sensitive data in its possession that is now for sale on the dark web" Ryan Clarkson of Clarkson Law Firm said. The lawsuit states that Ticketmaster not only failed to prevent unauthorized access to customer data but also failed to follow required protocols regarding the encryption of that data. Had Live Nation-Ticketmaster "properly monitored" their computer networks, the companies "would have discovered the intrusion sooner or prevented it altogether." Is this really the company that you want to invite into our city?

Portland is one of the few major metro areas **without** a Live Nation venue. The company's roster includes other popular concert sites such as the Hayden Homes Ampitheater in Bend and RV Inn Style Resorts Amphitheater in Ridgefield - those are venues near to Portland that bring in the artists requiring higher capacity space. They also run the Moda Center, which does have the potential to downsize scale to 3,000-4,000 cap if they invested in a scalable stage setup like they're planing for this lot. Why not invest in this already established venue to complete your goal?

In conclusion, opening a venue with Live Nation is a mistake that Portland cannot afford to make. Once that door is open to this monopoly power, it will be near-impossible to close again in the future. Are you ready to tell 20,000 currently employed local music staff that they do not matter to the fabric of this city? The local music industry now employs more people and brings in more tax revenue than timber, salmon or even legal cannabis. Does that not matter? An anonymous survey of about 2,000 local musicians and industry professionals, sent out by MusicPortland, found only about half of respondents could see a future in which a Live Nation venue benefits Portland – and that would require a lot of concessions, like mandated opportunities for local openers and

protections for local venues. Live Nation, though, is not known for accepting such demands. To state that "Public benefits of the proposed use outweigh any impacts that cannot be mitigated; Since there are no negative impacts identified that cannot be mitigated and which public benefits must outweigh, staff finds criterion C is not applicable." For a lot on public property paid by taxpayer dollars with the intention to disrupt traffic flow and drive out local independent competition in the music industry sounds like a few negative impacts to me so Public benefits *must* be applicable!

Live Nation would devastate our independent music economy just like they have done in every other community they enter. The arrival of Live Nation, would send Portland the way of cities such as Austin and Boston, where independent venues have shuttered and local journalists and musicians have lamented the corporatization of scenes that once felt organic and unstoppable. Meara McLoughlin, Executive Director of MusicPortland, previously said, "Portland is the largest independent music scene in any major city in the United States. About 95 percent of the music production business is locally owned. With virtually no public or private through grants or community support funding, we have created an internationally respected music ecology with incredible local talent, more independent venues than any other city, and one of the most engaged fan bases in the U.S. We have scraped and sacrificed to create this value and do not want it sold to a corporation that will extract from it and sell it back to us at a premium." I could not have said it any better myself.

I plead that you deny this permit. Approval would be a death sentence for the local music scene. Portland is the only major US city without a Live Nation venue and I personally love that! Let's keep it that way!

Thank you for your time and consideration.

K. Jasmine Robb
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Articles of reference:
https://www.justice.gov/opa/pr/justice-department-sues-live-nation-ticketmaster-monopolizing-markets-across-live-concert
https://oregoncapitalchronicle.com/2024/05/23/oregon-joins-federal-antitrust-lawsuit-against-live-nation-ticketmaster-saying-public-hurt/
https://www.theguardian.com/music/article/2024/jun/30/portland-live-music-live-nation
https://www.oregonmusicnews.com/music-portland-live-nation-2023
https://cybernews.com/news/ticketmaster-data-breach-class-action-lawsuit-live-nation/

From: Marshall Runkel <marshallr@strategies360.com>
Sent: Wednesday, July 17, 2024 2:46 PM
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Subject: Testimony of Marshall Runkel Regarding LU 23-111784 CU AD

Hello Team Hearings Office Clerks,

I'm attaching my testimony with attachment combined into one PDF regarding LU 23-111784 CU AD.

Please let me know if I need to submit testimony in any other way and/or if you spot any technical issues with the format of my testimony.

Thank you!

Marshall Runkel
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Testimony of Marshall Runkel
Regarding LU 23-111784 CU AD
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July 10, 2024
Amended, corrected and submitted on July 17, 2024

Thank you for the opportunity to testify today. My name is Marshall Runkel. My employer is a tenant at the Eastbank Commerce Center which is located directly North of the project site at 1001 SE Water Street.

The proposed development does not meet approval criteria and the Hearings OWicer should reject the Conditional Use for Major Entertainment Use and associated Adjustments to standards.

The specific criteria are:

33.815.215 A Public Services 3. Transportation System

33.815.215 C Benefit

33.266.310 Loading Standards

Regarding 33.815.215 A 3. Transportation System, the relevant approval criteria include, “safety, street capacity, level of service, connectivity...” The key factor in the approval criteria is safety. It is impossible for a major entertainment use to meet this important criterion at this site because it is an inherently unsafe place to attract significant new pedestrian traWic because of its proximity to train traWic that has killed two pedestrians and injured another in the past five years according to the StaW Report and Recommendation to the Hearings OWicer.

No mitigation for this inherent danger is proposed. It is diWicult to imagine that it is possible to mitigate this danger. Neither the City of Portland nor the State of Oregon has the authority to regulate train traWic. Trains regularly travel at high speeds in the area around the proposed development and, more importantly, regularly stop for indeterminate periods of time at crossings between SE Stark Street and SE Clay Street.

During the periods when trains are stopped at crossings, pedestrians regularly choose to ignore safety barriers designed to stop cars and climb over stopped trains. There are no pedestrian crossing protections at any of the five crossings near the site, nor are any new pedestrian safety protections proposed.

Importantly, not only will the proposed development attract new pedestrian traWic according to its own analysis, but also its analysis of parking inventory includes the area East of the train tracks. Anyone parked in those areas, roughly two thirds of the area analyzed, will have to traverse the train tracks to get to and from the proposed development.

The StaW Report and Recommendation to the Hearings OWicer erred in not including an analysis of the documented safety risks to pedestrians associated with train crossings. At the hearing, the applicant's representative seemed to suggest that safety is only one component of the approval criteria and, presumably, that the applicant had met enough other criteria to be approved. However, to be approved, the standard for approval is not a preponderance of the evidence or some other partial standard, the applicant must demonstrate that the proposed development will not increase safety risks. It has not done so, so it cannot meet this criterion.

Regarding 33.815.215 C Benefit, the approval criteria are, "Public benefits of the proposed use outweigh any impacts that cannot be mitigated." The key phrase in the criteria is "any impacts." The findings in the StaW Report and Recommendations to the Hearings OWicer cite that the proposed development will "deter crime" without citing any evidence but err in not including any analysis of the long-term operator of the proposed development.

At the hearing, the applicant's representative seemed to suggest that the Benefit standard was associated with the adequacy of the surrounding infrastructure, or some other standard associated with physical nature of the proposed project. That is not a correct interpretation of the Benefit standard. In Oregon, local governments often impose conditions of approval associated with the operations of a proposed project as part of an approval a Conditional Use review. Conditions of approval include measures to mitigate negative impacts of the operations of the proposed project on the welfare of the surrounding area. The Benefit standard is a stand-alone standard that does not modify any other standard and it must be met.

The applicant, property owner and proposed builder of the proposed development are reputable, locally owned and operated entities, however the long-term operator of the proposed development has been accused of significant unlawful behavior by the United States Justice Department and 30 states including Oregon. The unlawful behavior alleged in the complaint include anticompetitive behavior that injures artists, fans, small promoters and venue operators.

US Attorney General Merrick B. Garland said, "We allege that Live Nation relies on unlawful, anticompetitive conduct to exercise its monopolistic control over the live events industry in the United States at the cost of fans, artists, smaller promoters, and venue operators. The result is that fans pay more in fees, artists have fewer opportunities to play concerts, smaller promoters get squeezed out, and venues have fewer real choices for

ticketing services." (Please see attached complaint from the US Department of Justice that is cosigned by 30 other states.)

Portland's independent music community, comprised of artists, fans, promoters and venue owners is crucial to its identity and its future. It is diWicult to understand why impacts to these groups were not analyzed. The only possible way to ignore the significant evidence in that attached complaint would be for the Hearings OWicer to find that the complaint filed by the US Department of Justice and 30 other states is frivolous and that all the evidence presented in it about the operator of the proposed project is completely irrelevant to its proposed operations in Portland. If the evidence in the attached complaint about the impacts that the operator of the proposed project creates were adequately analyzed, they would be impossible to mitigate. The impacts to the City of Portland and Portlanders would be devastating and permanent and therefore this criterion cannot be met.

Regarding 33.266.310 Loading Standards, the purpose of the on-site loading space requirement cited in the StaW Report and Recommendations to the Hearings OWicer says, "A minimum number of loading spaces are required to ensure adequate areas for loading for larger uses and developments. These regulations ensure that the appearance of loading areas will be consistent with that of parking areas. The regulations ensure that access to and from loading facilities will not have a negative eWect on the traWic safety or other transportation functions of the abutting right-of-way."

The applicant proposes to use SE Main Street right-of-way for truck loading. The analysis in the StaW Report and Recommendations to the Hearings OWicer says in its findings that load in will, "largely operate outside hours of operation of most business." However, load in activities for events generally occur between 8:00am and Noon. Load in entails one to three 76' long trucks that will be angle parked on SE Main Street. Load out will generally occur after 11pm. During those periods, the applicant will essentially be privatizing the use of the public right-of-way. In its favor, that is consistent with its parking plan.

In the record, the applicant proposes to accommodate this privatizing of the public right-of-way via Temporary Street Use Permits (TSUP). However, the consistent use of SE Main Street is not consistent with the intention of TSUP system. The uses for TSUPs for closing a sidewalk, travel lane or street cited on Portland Bureau of Transportation's web site include, "property maintenance, construction, utility work, and crane lifts." It does not suggest that TSUP's could be used to avoid creating required on-site areas for loading.

The proposed plan to consistently privatize the use of SE Main Street via TSUPs does not satisfy the approval criteria concerning creating a negative eWect on other transportation functions of the abutting right-of-way. Therefore, the request for an adjustment should be denied.

At the hearing, another regulatory mechanism for enabling the applicant to use the public right-of-way for loading was suggested. If another method is being proposed, the Hearings

OWicer must reopen the record to allow the correct regulatory mechanism to be evaluated by all parties.

Thank you again for the opportunity to participate in this process.

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COMPLAINT

1:24–cv–3973

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and

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v.

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Beverly Hills, CA 90210

and

TICKETMASTER L.L.C.
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Beverly Hills, CA 90210,

Defendants.

Table of Contents

I. Introduction

1. One monopolist serves as the gatekeeper for the delivery of nearly all live music in America today: Live Nation, including its wholly owned subsidiary Ticketmaster. In Live Nation's words, it is the "largest live entertainment company in the world," the "largest producer of live music concerts in the world," and "the world's leading live entertainment ticketing sales and marketing company." Indeed, Live Nation is all these things, to the detriment of fans, artists, venues, and competition.

2. Today, musical artists must rely on promoters, venues, and ticketers to organize the business of playing live music. These service providers should work to serve the interests of artists and fans. Genuine competition for and among these service providers would generate the best, most cost-effective, and fan-friendly experience. But the world live music fans live in today is far from that.

3. Live Nation directly manages more than 400 musical artists and, in total, controls around 60% of concert promotions at major concert venues across the country. Live Nation also owns or controls more than 265 concert venues in North America, including more than 60 of the top 100 amphitheaters in the United States. For comparison, its closest rival owns no more than a handful of top amphitheaters. And, of course, through Ticketmaster, Live Nation controls roughly 80% or more of major concert venues' primary ticketing for concerts and a growing share of ticket resales in the secondary market.

4. The live music industry, like other heavily concentrated industries, is largely controlled by a well-known group of insiders who lead multiple interconnected companies with numerous conflicts of interest. These insiders have spent decades amassing, fortifying, and exercising power, particularly against anyone who seeks to disrupt the now-standard industry business practices and conduct. These business practices can, and often do, work against the

interests of those with relatively little power and influence, especially working musicians and fans. These insiders often speak to each other, and work together, as allies and partners rather than as vigorous competitors.

5. With this vast scope of power comes influence. Live Nation and its wholly owned subsidiary, Ticketmaster, have used that power and influence to insert themselves at the center and the edges of virtually every aspect of the live music ecosystem. This has given Live Nation and Ticketmaster the opportunity to freeze innovation and bend the industry to their own benefit. While this may be a boon to Live Nation's bottom line, there is a real cost to Americans. As described in detail below, today Live Nation possesses and routinely exercises control over which artists perform on what dates at which venues. Through Ticketmaster, Live Nation also possesses and exercises control over how fans are able to purchase tickets to see their favorite artists in concert and what fees those fans will pay to do so. Artists and fans as well as the countless people and other services that support them suffer from the loss of dynamism and growth that competition would inevitably usher in.

6. As this Complaint describes in detail, through a self-reinforcing "flywheel" that Live Nation-Ticketmaster created to connect their multiple interconnected businesses and interests, Live Nation and Ticketmaster have engaged in numerous forms of anticompetitive conduct. That anticompetitive conduct includes the following:

a. **Relationship with Oak View Group.** Live Nation-Ticketmaster exploits its longtime relationship with Oak View Group, a potential competitor-turned-partner that has described itself as a "hammer" and "protect[or]" for Live Nation. In recent years, Oak View Group has avoided bidding against Live Nation for artist talent and influenced venues to sign exclusive agreements with Ticketmaster. For example, Live Nation has

scolded Oak View Group multiple times for trying to compete. In one instance, Live Nation asked, "who would be so stupid to . . . play into [an artist agent's] arms," and on another occasion, Live Nation stated, "let's make sure we don't let [the artist agency] now start playing us off."

b. **Retaliating Against Potential Entrants.** Live Nation-Ticketmaster successfully threatened financial retaliation against a firm unless it stopped one of its subsidiaries from competing to gain a foothold in the U.S. concert promotions market.

c. **Acquiring Competitors and Competitive Threats.** Live Nation-Ticketmaster strategically acquired a number of smaller and regional promoters that it had internally identified as threats. This has undermined competition and impacted artist compensation.

d. **Threatening and Retaliating Against Venues that Work with Rivals.** Live Nation-Ticketmaster's power in concert promotions means that every live concert venue knows choosing another promoter or ticketer comes with a risk of drawing an adverse reaction from Live Nation-Ticketmaster that would result in losing concerts, revenue, and fans.

e. **Locking Out Competition with Exclusionary Contracts.** Live Nation-Ticketmaster locks concert venues into long-term exclusive contracts so that venues cannot consider or choose rival ticketers or switch to better, more, or cost-effective ticketing technology. These contracts allow Live Nation-Ticketmaster to reduce competitive pressure to improve its own ticketing technology and customer service.

f. **Blocking Venues from Using Multiple Ticketers.** Live Nation-Ticketmaster's conduct and exclusive contracts prevent new and different promotions and

ticketing competitors and business models from emerging. They block venues from being able to use multiple ticketers, who would compete by offering the best mix of prices, fees, quality, and innovation to fans.

g. **Restricting Artists' Access to Venues.** Live Nation-Ticketmaster has increasingly gained control of key venues, including amphitheaters, through acquisitions, partnerships, and agreements. Live Nation-Ticketmaster restricts artists' use of those venues unless those artists also agree to use their promotion services.

h. **Acquiring Competitors and Competitive Threats.** Live Nation-Ticketmaster strategically acquired a number of smaller and regional promoters that it had internally identified as threats. This has undermined competition and impacted artist compensation.

7. Taken individually and considered together, Live Nation's and Ticketmaster's conduct allows them to exploit their conflicts of interest—as a promoter, ticketer, venue owner, and artist manager—across the live music industry and further entrench their dominant positions. Because Live Nation and Ticketmaster control so much of the concert-going experience, would-be rivals must compete at scale across different levels of the concert ecosystem, raising barriers to competition even further and requiring multi-level entry by existing and would-be competitors.

8. The real world, practical costs of Live Nation's strategy are well-known. Public frustration with concert ticket pricing and sales is a constant drumbeat. The fees that must be paid to attend a live concert in America far exceed fees in comparable parts of the world. Any fan who has logged onto Ticketmaster's website to buy a concert ticket knows the feeling of

shock and frustration as the base cost of the ticket increases dramatically with the addition of fees to include:

a. "service" or "convenience" fees,

b. "Platinum" fees,

c. "VIP" fees,

d. "per order" or "handling" fees,

e. "payment processing" fees,

f. "facility" fees, and/or

g. any other fee or tax Ticketmaster collects from the fan, often with a cut of that fee going back to Ticketmaster.

9. Whatever the name of the fee and however the fees are packaged and collected, they are essentially a "Ticketmaster Tax" that ultimately raise the price fans pay.

10. Live Nation's anticompetitive conduct has not only harmed fans in the form of more and higher fees, but also undermines innovation. Competition increases the array and quality of services available and makes it easier for fans to find and see artists they love. Unburdened by competition on the merits, Ticketmaster does not need to invest as much to improve the fan experience.

11. Live Nation and Ticketmaster understand the benefits a more open and competitive ticketing ecosystem would bring to fans and others. For example, in 2022, Ticketmaster evaluated and recognized that a more open, non-exclusive ticketing system—in essence, ending its preferred exclusive primary ticketing relationships—could lead to more competition and threats to its dominance. Instead, Ticketmaster has focused on adding new restrictions to its ticketing systems to force fans to interact with Ticketmaster and thereby

facilitate Ticketmaster's ability to increase the amount of data it collects from fans. This, of course, benefits not only Ticketmaster but also the vast array of related Live Nation businesses and feeds the Live Nation-Ticketmaster flywheel. According to Live Nation's CEO, Ticketmaster "now not only know[s] the person that bought the ticket, but [also] those three people that you are taking to the show, which we [Live Nation] have not known historically." Its data supremacy over rivals has only accelerated.

12. The impact of the diminished incentive to innovate can manifest in real ways. Without competitive pressure to spur investment and innovation, customer service, website and app design, and product quality and stability suffer. These harms are the natural and predictable consequence of an industry suffocating under monopoly.

13. The United States and certain States previously tried to protect what should be a dynamic, thriving industry through a Clayton Act Section 7 case and resulting consent decree in 2010, followed by an amended consent decree in 2020. Notwithstanding the prior case under Section 7 of the Clayton Act, Live Nation and Ticketmaster have violated other antitrust laws, namely the Sherman Act, through additional, different, and more expansive forms of anticompetitive conduct and exclusionary practices.

14. Live Nation's monopoly, and the anticompetitive conduct that protects and maintains its monopoly, strikes a chord precisely because the industry at stake is one that has for generations inspired, entertained, and challenged Americans. Conduct that subverts competition here not only harms the structure of the live music industry and the countless people that work in that industry, but also damages the foundation of creative expression and art that lies at the heart of our personal, social, and political lives.

15. It is often said that music requires little more than "three chords and the truth." In our modern economy, the live music industry requires that plus competition. Restoring competition protects the ability of working artists and fans to meaningfully access, afford, and engage with music and each other. Addressing and stopping anticompetitive conduct is also essential to ensure the vibrancy of live music. The United States and the Attorneys General of Arizona, Arkansas, California, Colorado, Connecticut, the District of Columbia, Florida, Illinois, Maryland, Massachusetts, Michigan, Minnesota, Nevada, New Hampshire, New Jersey, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Virginia, Washington, West Virginia, Wisconsin, and Wyoming hereby seek relief from this Court, including structural relief, to stop the anticompetitive conduct arising from Live Nation's monopoly power.

II. Defendants Live Nation and Ticketmaster

16. According to its 2023 securities filings, Defendant Live Nation Entertainment, Inc. is the "largest live entertainment company in the world," the "largest producer of live music concerts in the world," and "the world's leading live entertainment ticketing sales and marketing company," and it owns, operates, leases, has equity interest in, or has exclusive booking rights for or significant influence over 373 venues globally and more than 265 in North America. This includes more than 60 of the top 100 amphitheaters in the United States that Live Nation either owns or controls through long-term leases or for which it has the exclusive right to determine who performs at the venue. Control over a venue not only confers on Live Nation the ability to dictate whether fans can see a particular artist they love, but in many cases also provides Live Nation control over many aspects of the concert experience and a host of additional revenue streams ranging from sponsorships to food and beverage sales.

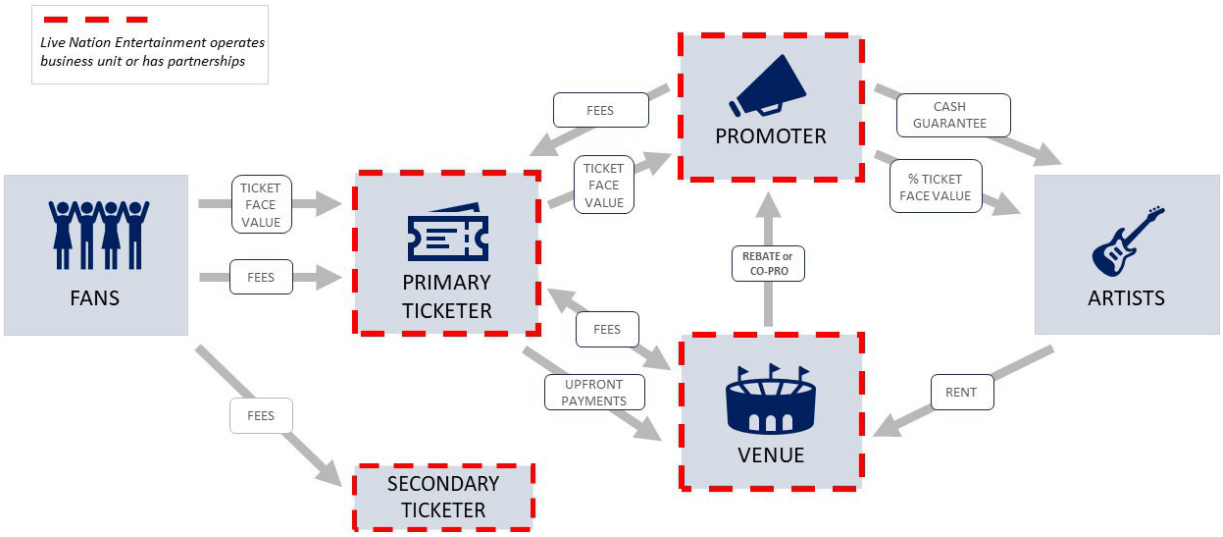
17. Live Nation's business brings in over $22 billion dollars in revenue a year globally. Live Nation divides its business into three segments: Concerts (e.g., promotions, venue management, and music festival production), Ticketing (e.g., Ticketmaster business), and Sponsorship and Advertising. In 2023, Live Nation generated $18.8 billion in Concerts revenue, $2.9 billion for Ticketing, and $1.1 billion for Sponsorship & Advertising.

18. Defendant Ticketmaster L.L.C. is a wholly owned subsidiary of Live Nation (collectively referred to as "Live Nation" herein). Ticketmaster provides primary and secondary ticketing services, which are responsible, respectively, for selling tickets to fans in the first instance for a show and allowing fans to resell those tickets at a later time. Ticketmaster is by far the largest concert ticketing company in the United States for major concert venues, at least eight times the size of its closest competitor.

III. Industry Background

A. How Live Concerts Work

19. Today's live music concerts are complex productions involving thousands of choices to bring together artists and their fans on a particular date and time. Staging a single concert at a major concert venue—let alone an entire tour—involves months of preparation and requires the orchestrated support of many intermediaries in multiple roles. Among the decisions that will most impact the overall experience of fans include what venue will host a particular live music experience, who will promote the event, and who will ticket the event.



20. The planning of a concert predictably begins with an **artist**[1] who decides to share her music and the artistic vision for the presentation of that music with the world and, specifically, with her fans. For artists, the decision to perform live and share music in this medium is an important opportunity to publicly display their art, but also to generate and continue to cultivate enduring relationships with their fans who appreciate and patronize that art. The overall experience associated with what music to present and, critically, how to present it, allows artists to express their artistic vision in a way that will resonate with fans. While artists strive to ensure fans at a single show appreciate their art, they also work to cultivate that fan base over the long run. This allows artists to maximize their ability to earn money over the arc of their career as compensation for their creative labor, whether it is through more concerts, the sale of more tickets at larger concerts, or the sale of merchandise and other related products and

[1] As used in this Complaint, "artist" refers to both musicians and comedians, who make similar choices in planning their performances and face similar competitive conditions.

services. As is often publicly reported, the income earned from concerts generally represents a substantial part of artists' compensation for their creative and performance labor.

21. **Managers and/or agents** typically assist artists to achieve these goals. Managers and agents guide artists' professional lives, including touring, and are often compensated based on a share of the artist's revenues or profit streams. Live Nation manages more than 400 artists in the United States, and in that capacity works with artists, along with other industry intermediaries, to shape their tours and price tickets. One of the founders of Oak View Group, a leading venue development company that partners with Live Nation, also owns a company that is a major manager of artists in the United States music industry.

22. In the modern era, once an artist decides to perform a concert or go on tour, the first major decision they must make, alongside their manager or agent, is to contract with one or more **promoters**. Promoters are primarily responsible for arranging the concert or tour and promoting the event to the public. Promoters provide a variety of services, including working with artists and their managers and/or agents to help choose the venue(s) to host the concert or tour and determine ticket prices, promoting the concert to the public, and shouldering the financial risk and potential upside if the show or tour underperforms/overperforms in terms of profitability. Promoters are also generally responsible for facilitating payments to the artist, venue, and other vendors associated with the concert or tour.

23. Artists historically used different promoters for each show in a new city or region of the country. Today, while local promoters may book one or a handful of shows in a local market, touring artists typically use national promoters—principally Live Nation and AEG Presents (a subsidiary of Anschutz Entertainment Group Inc. ("AEG"))—as they can offer a single packaged tour deal. These deals often include a larger, upfront guaranteed payment to the

artist for a national tour with multiple shows across many markets as compared to one-off shows in a single city or region. Through tour deals, national promoters reduce their own risk of not generating enough revenue to cover the artist's guarantee by, in effect, using the profits of successful shows to mitigate the losses of unsuccessful shows within an artist's tour.

24. Live Nation and its much smaller rival (less than half the size, although even that overstates its competitive significance), AEG, are the two largest concert promoters in the United States. Both Live Nation and AEG also separately provide and are compensated for providing primary ticketing services to venues. No other promoter in the United States can rival their venue networks, scale, reach, and connections to compete to promote national tours for major artists on a regular basis.

25. The second major decision an artist—supported by their manager and/or agent—must make is which concert **venues** to use at various stops on a national tour. Concert venues are the physical spaces or facilities that host live music. Venues compete to attract artists to perform at their facility, and artists may choose where to perform based on a variety of characteristics, including the venue's ambiance, capacity, location, and acoustics. Sometimes a venue owner separately contracts with a promoter, like Live Nation, to provide that promoter with financial incentives for booking and promotions services over an extended period of time, which predictably can lead a promoter to steer artists it promotes to perform at the venue. Other times venues provide these incentives on a show-by-show basis.

26. Venue owners can either operate the facility themselves or hire a management company to operate it. Venue operators provide and maintain the facilities where concerts are held and oversee the venue's services, such as concessions, parking, security, and artist merchandising. Venue operators usually charge the artist and their promoter rent to use the

facility to perform a concert, and the venue operator often works directly with the artist in providing related ancillary services, such as the staging and lighting of a show.

27. Most artists start their careers performing at smaller venues like clubs or theaters, which offer limited capacities, but at generally lower costs. These venues allow newer artists to develop and grow a relationship with their fans in more intimate settings before moving on to larger venues as their "draw" of fans increases. As artists grow their fan base, they graduate to larger venues. Major concert venues include large amphitheaters and arenas that are particularly suited to hosting live concerts for popular artists due to their capacity, infrastructure, and amenities. Concerts are a vital source of revenue for these venues.

28. Live Nation owns, operates, or otherwise controls more than 265 venues across North America. For many years, Live Nation has been the single largest—and growing—owner of American clubs and theaters, which gives it the unique ability to capture artists early in their careers. As artists grow their popularity, this early access enhances Live Nation's ability to funnel artists through the vast array of Live Nation products and services in the modern live music ecosystem. Live Nation's control over access to so many popular venues across the country gives it outsized power and control in this industry.

29. Large **amphitheaters**, in particular, are attractive venues for certain popular artists. Amphitheaters are outdoor venues, which allow artists to take advantage of warm weather in the summer months when many artists prefer to tour. Many touring artists like amphitheaters because they generally offer a balance between more seating than clubs and theaters at a more lucrative compensation and more affordable prices for fans, and a more curated and intimate artistic experience than arenas or large festivals. Large amphitheaters are especially attractive to artists who have graduated from clubs and theaters, but are not yet able to fill higher-capacity

arenas on a consistent basis. They also may be attractive to artists who once played in arenas or stadiums but are no longer able to attract the same audience size.

30. Live Nation controls more than 60% of large amphitheaters in the United States. Live Nation owns, operates, or exclusively books at least 40 of the top 50 and 60 of the top 100 amphitheaters in the United States. No other company in the United States owns more than a handful of amphitheaters, even those with an otherwise sizeable portfolio of arenas.

31. Today, almost all major concert venues contract with a **primary ticketer** to handle the sale of tickets. Primary ticketers orchestrate the sale of tickets to fans. In the past, tickets for major concert venues were sold through call centers, retail outlets, and box offices, all of which could be operated or offered by different parties. Today, most tickets are sold through the internet and mobile applications and the most common delivery method is electronic delivery to fans' mobile phones. The vast majority of major concert venues have an exclusive arrangement with a primary ticketer, most often Ticketmaster, who is entitled to manage and sell tickets on behalf of the initial rights holder—for concerts, this is typically the artist—for all events at that venue. The primary ticketer manages ticketing inventory and provides the technology for online ticketing, accounting, payment processing, and other administrative capabilities.

32. Live Nation's subsidiary, Ticketmaster, is the largest primary ticketer in the United States. AEG operates AXS, the second largest primary ticketer in the United States, although it is much smaller than—less than a fifth of the size of—Ticketmaster. Ticketmaster's dominance is especially apparent among major concert venues. In 2022, Ticketmaster's share of primary ticketing for NBA and NHL arenas exceeded 70%, with AXS and SeatGeek trailing. In the past ten years, AXS has not moved a single arena away from Ticketmaster. Live Nation's

conduct, including its financial and commercial relationship with venue manager Oak View Group and the conditioning of access to artists on a venue's selection of primary ticketer, vitiates many venues' ability to select a primary ticketer on the merits of its ticketing service, significantly disadvantaging Live Nation's rivals when they compete for primary ticketing contracts.

33. In light of existing market dynamics and Live Nation's conduct, it has been and remains rare for venues in the United States to be "open," which would mean that the dynamism of competition would decide what primary ticketer wins the contract for a particular concert at a particular venue. Instead, primary ticketers, notably Ticketmaster, typically contract to be the exclusive ticketer for a major concert venue for a period of many years, offering venues up-front payments in the form of signing bonuses and sponsorships. Indeed, Ticketmaster's exclusive contracts cover more than 60% of ticket sales to major concert venues and more than 75% of concert ticket sales to major concert venues. These exclusive agreements contractually bar any option of having more than one ticketing company offering differentiated services to fans at such venues for a single show or even across shows, with very limited exceptions. This model that locks in the certainty of exclusivity over the dynamism of open competition is an intentional business strategy found in the Ticketmaster-dominated primary ticketing market in the United States, but does not burden competition for such services in many other parts of the world not dominated by Ticketmaster.

34. In other countries, many venues are "open." For instance, in France, concert tickets are often held in a central inventory management system that is accessible by multiple ticketing companies. And in the United Kingdom, a promoter often allocates bundles of tickets to multiple ticketing providers. No matter the form it takes, an "open" system means that artists,

whose incentives for a lower-cost, higher-quality concert experience are more closely aligned with fans, are more likely to play a role in choosing the ticketing company of their choice.

35. In addition to the primary ticketer, fans can buy tickets through a **secondary ticketing platform**, where individual ticket holders, season ticket holders, or businesses can re-sell tickets to other fans. Secondary ticketing platforms earn revenue through fees paid by the seller of the ticket and, usually, fees paid by the buyer of the ticket as well.

36. Ticketmaster's ticketing agreements with a venue sometimes entitle Ticketmaster to control secondary ticketing services in addition to primary ticketing services. Ticketmaster's overall share of resale tickets in North America has grown rapidly since 2019, accounting for nearly one third of ticket resales in 2022. Ticketmaster's rapid increase in secondary market share coincided with its launch of SafeTix technology in or about 2019. SafeTix technology requires that all transfers occur within the Ticketmaster platform. This technology makes it harder for fans to use rivals' secondary ticketing platforms to resell tickets, pushing them instead to the Ticketmaster resale platform.

B. Money Flows Across the Live Entertainment Industry

37. Today, artists who perform at a live concert must navigate a complex web of contracts, business relationships, and money flows across numerous intermediaries and participants. These arrangements often result in fees and charges being split among various industry participants in ways that are not always visible to artists, let alone to fans. Importantly, many of these contracts are interdependent, such that increases to one incentivize or directly influence increases in other areas. And at times, the convoluted web of agreements results in one entity paying on behalf of another, only to then recoup portions of those funds for its own benefit.

38. Today, **fans** pay more in fees associated with live music concert tickets in America than other parts of the world.

39. An intermediary, like Live Nation, makes money through a series of interconnected agreements it enters into with artists, venues, rival promoters, and fans by virtue of the many "hats" it wears across the industry. Through these agreements, Live Nation has constructed a live entertainment ecosystem in which Live Nation can not only extract revenues at every stage as an intermediary, but on many occasions, also double-dip across multiple business lines—for example, as both a ticketer and a promoter—creating a feedback loop that inflates its fees and revenue, all at the expense of fans.

40. **Promoters** like Live Nation generate revenue primarily through a pre-agreed split of the gross ticket sales of a show or tour with the **artist** as well as through payments made by **venues** to incentivize the promoter to route its artists to perform at a particular venue.

41. When trying to secure the right to promote an artist's tour, a promoter and artist often negotiate over the artist's guaranteed payment and the profit split of certain additional concert revenues. For example, Live Nation typically pays an artist the higher of either (1) a percentage of the gross ticket sales less expenses or (2) the artist's guaranteed payment. Guaranteed payments are typically based on the number of performances in the tour, length of the promotion contract, and projected ticket sales, while the percentage of the gross ticket sales less expenses is a set percentage. Live Nation will also enter into some multi-tour deals where the artist will earn even larger cash advances today in exchange for the right to promote the artist exclusively for a certain number of performances or a specific amount of time. While Live Nation sweetens the upfront incentives for certain artists by offering these larger cash advances, they extract recompense in other parts of the ecosystem by, for example, routing their promoted

artists through Live Nation's owned and controlled venues or venues exclusively ticketed by Ticketmaster. For other artists, Live Nation typically conditions use of its owned or controlled venues (especially large amphitheaters) on an artist signing with Live Nation as promoter.

42. In addition to contracting with artists for promotion services, Live Nation, as a **promoter**, also frequently and separately contracts with **venues** to provide booking and promotions services, in exchange for a cut of the venue's revenues associated with the shows it brings to the venue and, occasionally, even a cut from shows that rival promoters bring to the venue. These agreements can come in a variety of forms and are known as "rebate deals," "co-promotion deals," or "drawbacks." These revenues generally are not added to the pool of money Live Nation splits with artists. In fact, some of these payments functionally remit money back to Live Nation that Live Nation initially paid to venues on behalf of its artists (e.g., facility rental fee rebates). These deals—through which Live Nation can essentially claw back a show's expenditures—reflect Live Nation's power over venues, derived from its influence over artists' decisions about what venues to play and when. Over the past few years, Live Nation has continued to increase its concert promotions fees imposed on venues, which are passed through to fans.

43. Ticketmaster, as **primary ticketer**, collects both the face value of the ticket as well as a host of fees tacked on top of the face value ("primary ticketing fees"). Ticketmaster, owned by Live Nation, retains a portion of the fees. The remaining fees are remitted to other intermediaries like the venue and promoter, which are often Live Nation-owned entities, amounting to paying several of these fees (or portions thereof) to itself.

44. **"Ticketing" Fees.** Americans are well-acquainted with the numerous and different fees appended to the cost of a single ticket to attend a concert today. The numerous fees

that are added on top of each other—often with little visibility offered to the fan buying the ticket—contribute to Live Nation's nearly 40% adjusted operating margin in 2023 for its global ticketing business. In addition to charging those fees, Ticketmaster often offers consumers the ability to purchase ticket insurance and "upsells" (such as the option to add parking) at checkout, and it retains a "cut" of these revenues as well. The fees can include, for example:

- *"Service" or "Convenience" Fees*. Service fees, sometimes called convenience fees, are negotiated between the venue and the ticketer and can be set in a variety of ways. Sometimes the ticketer will receive an agreed-upon dollar amount and/or an agreed-upon percentage of the service fee. Alternatively, the venue and ticketer might agree in advance as to the actual fee that the fan will pay for any event and how to split that. Sometimes, the ticketer will receive a fee based on the face value of the ticket. Under any of those models, the ultimate fee that the consumer pays results from the negotiation between the ticketer and the venue. Generally, under these models, the higher the ticket price, the higher the ticketing fee. As a result, the fee has no meaningful relation to the actual cost of providing the ticketing service, which would not vary ticket by ticket or show by show.
- "*Platinum" and "Pricemaster" Fees*. Not all primary tickets, however, are subject to the typical "service" fees. Ticketmaster has two dynamic pricing tools, Platinum and Pricemaster. For tickets that are dynamically priced by Ticketmaster, consumers often pay higher ticketing fees. Ticketmaster additionally receives an "inside fee" from the promoter amounting to a double dip by Ticketmaster.

- *"Per Order" (or "Handling") Fees*, which are additional ticketing service fees charged on top of each order, separate and apart from the ticketing fees embedded in the service charge. These are often split between the ticketer and the venue.
- *"Payment Processing" Fees*, which are additional fees charged on certain transactions for processing the electronic payment inherently necessary to purchase any electronically delivered ticket.
- *"Facility" Fees*, which are fees charged by some venues and typically remitted in full to the venue.

Although venues retain some proportion of ticketing fees described above, a significant proportion of the venue's share is often passed onto promoters, like Live Nation, to incentivize them to steer content to their venue.

45. The face values of tickets are typically set or approved by artists, although promoters' offers also influence face values. Artists, in consultation with their manager and the promoter (either or both of which might be Live Nation employees), can also decide to enable dynamic pricing through Ticketmaster's two dynamic pricing tools, Pricemaster and Platinum, which allow face values to increase based upon the level of demand for a given concert. Promoters and venues use Ticketmaster's Pricemaster tool for "bulk" dynamic pricing of groups of seats, while Platinum tickets, on the other hand, are used to dynamically price at the seat level. For tickets that are dynamically priced by Ticketmaster, whether as bulk or at the seat level, consumers often pay much higher face values. Ticketmaster has a pricing team that makes pricing recommendations—including recommendations as to average and minimum face value of tickets. And typically, it is Ticketmaster's own pricing team that adjusts the face value of tickets based on demand for a particular show.

46. **Venues** earn revenue by renting their facilities to the artist and promoter, selling food, beverages, and merchandise to patrons, collecting ticketing and parking fees, and—sometimes—by sharing in the profit from concerts through co-promotion agreements with promoters such as Live Nation. When venues set aspects of ticket fees, they must not only account for their own operating costs, but also ensure the fees are sufficient to cover all the payments the venues must make to intermediaries like promoters and ticketers. For example, venues must ensure the additional ticket fees cover the fee charged by the primary ticketing service (generally Ticketmaster) and offset the various payments they must make to the promoter (often Live Nation). Because of the interrelated nature of contracts in the industry, money often flows in multiple directions to and from various intermediaries, sometimes in both directions for a single show.

47. Live Nation tells the public that the service fees are decided by the venue. While it is nominally true that "[t]he venue decides on the service fees," in reality, these decisions are predicated upon the portion of those fees that Live Nation (via Ticketmaster) will retain in the first instance—an amount Live Nation negotiates with each venue in advance of the venue setting the amount of the fee. This arrangement is consistent with the many other fees extracted at various stages; those fees may superficially be set by a market participant other than Live Nation or Ticketmaster, but Live Nation and Ticketmaster nonetheless have a hand in setting nearly all these fees and often benefit financially from a significant portion of these fees.

48. In other words, Live Nation's various contracts operate together to drive up the overall number and size of fees paid by fans. For example, under many Ticketmaster contracts, when venues increase their own fees to offset Live Nation's concert promotion charges, Ticketmaster is entitled to receive a "ticketing" fee. This double-dip by Live Nation (as

promoter) and Ticketmaster (as ticketer) means venues have to raise fan-paid fees just to offset Live Nation's promotions charges. For example, a venue forced to pay Live Nation a $5 promotions rebate and Ticketmaster a portion of any increased fees would need to raise fees on fans by significantly more than $5 to break even.

49. **Secondary ticketing** providers earn revenue through fees paid by the seller of the ticket and, usually, the buyer of the ticket as well. Ticketmaster provides secondary ticketing services via "TM+" to venues when it provides primary ticketing services to the venue hosting the event. Ticketmaster also sells secondary tickets via its "3PE" tool when it does not provide primary ticketing services to the venue hosting the event.

50. In addition to the fees Live Nation extracts under its ticketing and promotions contracts, Live Nation also generates significant revenues from its **sponsorship and advertising** business. Live Nation takes advantage of its vast network of venues and high volume of tickets to secure substantial sponsorship and advertising revenue—further deepening its pool of profits. It sells signage rights, online advertising, beverage pouring rights, venue-naming rights, and more. Live Nation considers its sponsorship and advertising business to be one of its high-margin businesses.

51. Live Nation is able to extract significant revenues through its sponsorship and advertising business in part by controlling access to fans at performances where advertisers want to reach them. By controlling the vast majority of large amphitheaters in the United States—pushing concerts to venues it owns, operates, and/or exclusively tickets; locking in key artist talent; and growing the massive data trove it has accumulated as a ticketer—Live Nation is able to drive substantial advertising revenue that feeds the rest of its business.

C. Live Nation's "Flywheel"

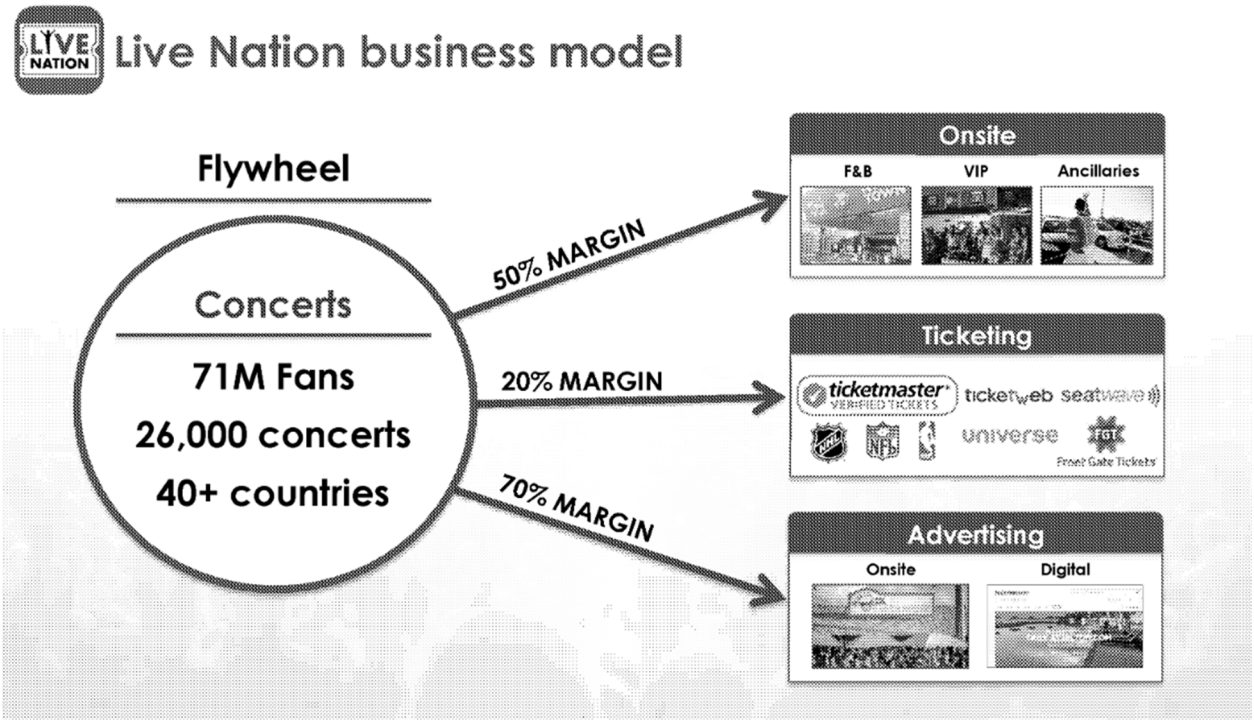
52. Founded in 1996, Live Nation began as a live events promoter. Over the following three decades, Live Nation expanded its reach across nearly the entire live entertainment industry—live events promotions, primary ticketing, secondary ticketing, venue ownership and operations, music festivals, artist management, sponsorships, and more. Live Nation controls wide swaths of live music in the United States because of its multidimensional power.

53. Live Nation uses its concert promotion business—the core of its "flywheel"—to feed its other high margin businesses, including Ticketmaster's ticketing business, Live Nation's network of venues, as well as Live Nation's sponsorship and advertising business.

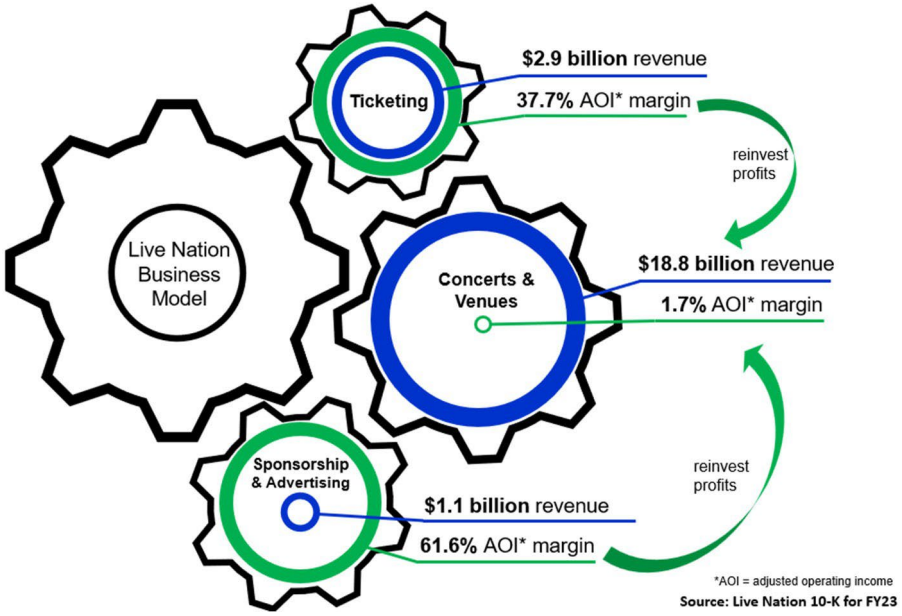
54. As Live Nation's CEO put it, concert promotion is the business that gives the company control over content that feeds Live Nation's three high margin businesses:

> At the core is our flywheel. It's the concert business . . . It's the lower margin part of our business. But in order to get into these three high margin businesses and be competitive, we have to have that scale [in concerts] . . . [Our] leadership position [in concerts] drives the three high margin businesses that are driving our true cash flow and EBITDA.

55. The modified graphic below, based upon Live Nation documents, demonstrates how the flywheel entrenches Live Nation's profits and power.



56. The modified graphic below, based upon Live Nation's public filings, demonstrates how this flywheel generates substantial revenues and profits across Live Nation's businesses.



57. Live Nation wields its power in concert promotions to fuel and drive its primary ticketing business. This presents a Hobson's choice for major concert venues that Live Nation does not already own or otherwise control: either choose Ticketmaster as their exclusive provider of primary ticketing services and benefit from access to Live Nation concerts, or choose a rival ticketing company and risk losing access to Live Nation concerts. Losing access to even a portion of Live Nation's tours can seriously harm venues that rely on highly profitable concerts.

58. Live Nation does not have to threaten individual venues explicitly (although it does) to discourage them from signing ticketing contracts with competitors. The risks are well-known in the industry, and Live Nation's topmost executives remain outspoken that Live Nation likely will steer concerts away from independent venues that do not select Ticketmaster as their ticketer. Live Nation's CEO publicly acknowledged as much in not-so-subtle terms:

> We can't say to a Ticketmaster venue that says they want to use a different ticketing platform, "If you do that, we won't put shows in your building." … [But] **we have to put the show where we make the most economics, and maybe that venue [that wants to use a different ticketing platform] won't be the best economic place anymore because we don't hold the revenue**.

59. The power and profits from Live Nation's high-margin businesses (including Ticketmaster and Sponsorship & Advertising) help keep the flywheel spinning by financially fueling (what may appear on paper to be) Live Nation's less profitable promotions business. Live Nation can do this in a number of ways. For example, for top artists, Live Nation can use profits from other business lines to fund break-even or even unprofitable exclusive promotion contracts on a standalone basis to keep feeding the flywheel. Rival promoters often find themselves unable to match Live Nation's offers to artists because Live Nation can subsidize artist offers with profits from ticketing and other higher margin businesses. (Of course, some of Live Nation's exclusionary conduct also is aimed at weakening or eliminating rivals, and reducing the amount Live Nation needs to bid to win artists' business). At the same time, artists who do not choose

Live Nation to promote their shows or tours can find themselves locked out of Live Nation-owned and controlled venues, including Live Nation's large stable of amphitheaters that are more accessible for fans.

60. Live Nation also uses consumer data—acquired through primary and secondary ticketing sales—to augment its ability to feed its flywheel. As Live Nation's CEO put it: "No one has 80 million customers segmented in a database as rich as ours . . . that audience and that platform is really the key, unique part of our business."

61. As described below, Live Nation's conduct and anticompetitive scheme further creates and enhances barriers for rivals and nascent threats while cementing Live Nation's grip on nearly every corner of this ecosystem. Industry participants recognize that rivals must participate at scale and at multiple points of the concert ecosystem to compete effectively with Live Nation. For example:

- Live Nation's self-reinforcing conduct and power in promotions, ticketing, and venue access disadvantages rivals that do not have a similar portfolio of intertwined assets, increasing barriers for those that do not enter and expand in multiple markets simultaneously.
- Ticketing rivals must invest in and develop ticketing systems robust enough to handle high-demand on-sale events for popular artists, fraud/protection and credit card access for fans, and back-office support. Rival ticketers must also accumulate sufficient data to target, market, and advertise shows to fans, as well as sufficient working capital to secure business, all at a time when there are limited opportunities to even compete to dislodge Ticketmaster's monopoly that is

maintained by long-term, exclusive ticketing contracts and the content threat and thereby recoup this investment.

- Promotions rivals face similar obstacles. They need significant capital to fund tour payments (often millions of dollars), enough scale to hedge against the risk of any single tour failing, extensive relationships with artists, artist managers, agents, and venue operators (and, on the flip side, willingness of those market participants to use a competitor without the fear of retaliation by Live Nation or its surrogates), and enough experience and data from previous tours to make effective routing and pricing recommendations to artists.

D. History of Live Nation and Ticketmaster

62. SFX Entertainment, which later became Live Nation, was founded in 1996 and rapidly began rolling up smaller entertainment companies to consolidate power in concert promotions. That strategy continues today. As Live Nation's current CEO has explained, this strategy of consolidation "from day one" is part of the company's DNA: "we want to continually be the largest promoter in the world, have as many boots on the ground in as many cities and countries in the world as possible ....."

63. Ticketmaster, Inc. was founded in 1976 as an independent ticketing company. It has been the largest primary ticketer for major concert venues for decades. Like Live Nation, Ticketmaster initially rose to power in part through a series of acquisitions that consolidated the company's dominant position in primary ticketing. Ticketmaster also expanded and cemented its dominance by pushing through changes to the structure of ticketing contracts that reduced competitive pressures to lower ticketing fees that are ultimately borne by fans.

64. Ticketmaster restructured how ticketing companies get paid for their services. Venues used to pay ticketing service companies to ticket events. But in the early 1980s, Ticketmaster started passing more ticketing costs onto consumers (who effectively have no choice in selecting the ticketer) in the form of fees, and then sharing some of the additional revenue with venues. Second, Ticketmaster began paying venues large upfront advances in exchange for the exclusive, multi-year right to sell and distribute their tickets.

65. On February 10, 2009, Live Nation (then known as Live Nation, Inc.) and Ticketmaster (then known as Ticketmaster Entertainment, Inc.), agreed to merge. At the time, Live Nation was an emerging direct competitor to Ticketmaster in primary ticketing services: after spending nearly two years evaluating, licensing, and developing its own ticketing platform, Live Nation had rapidly become America's second-largest primary ticketer at major concert venues.[2] Alleging the merger would likely substantially lessen competition in the provision and sale of primary ticketing services for major concert venues, the United States and nineteen states[3] filed a case challenging the merger under Section 7 of the Clayton Act, 15 U.S.C. § 18.[4] The parties agreed to a consent decree, entered as a final judgment in the Section 7 case on July 30, 2010, allowing the merger to proceed subject to certain conditions.[5]

[2] Amended Complaint at 5 ¶ 3, 13–14 ¶¶ 34–37, *United States et al. v. Ticketmaster Ent., Inc., et al.*, No. 1:10-cv-00139, Dkt. No. (D.D.C. Jan. 29, 2010), ECF No. 5.

[3] Specifically, the States of Arizona, Arkansas, California, Florida, Illinois, Iowa, Louisiana, Nebraska, Nevada, Ohio, Oregon, Rhode Island, Tennessee, Texas, Wisconsin, New Jersey, and Washington and the Commonwealths of Massachusetts and Pennsylvania. *Id.* at 1.

[4] *Id.* at 17 ¶ 46.

[5] Final Judgment, *United States et al. v. Ticketmaster Ent., Inc., et al.*, No. 1:10-cv-00139 (D.D.C. July 30, 2010), ECF No. 15.

66. In January 2020, the United States filed a motion to modify the consent decree in the Section 7 case.[6] Ticketmaster and Live Nation denied the allegations but ultimately agreed to the United States' and some state co-plaintiffs' proposed amendments to the consent decree.[7] The court entered the amended consent decree as an amended final judgment that, among other things, partially extended the decree's effective date through December 31, 2025.[8] The court then closed the Section 7 case on February 29, 2020.[9] Several of the plaintiff states here were not parties to the 2010 or 2020 decrees.

67. In the years since, Live Nation and Ticketmaster have committed additional, different, and more expansive violations of the antitrust laws compared to the narrower scope of the Section 7 case. As detailed below, Live Nation and Ticketmaster have engaged in ongoing unlawful monopolization of markets across the concert industry in violation of Section 2 of the Sherman Act and state analogues. For example, since 2020, Live Nation and Ticketmaster have unlawfully coopted actual and potential rivals to remove competitive threats and cement Live Nation's and Ticketmaster's dominance of the concert industry. In addition, as also detailed below, Live Nation and Ticketmaster have violated Section 1 of the Sherman Act and state analogues. For example, since 2020, Ticketmaster has entered into long-term exclusive ticketing agreements with venues. The Section 7 consent decree—which addressed a claim different from those at issue here—has failed to restrain Live Nation and Ticketmaster from violating other antitrust laws in increasingly serious ways.

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[6] Motion to Modify Final Judgment and Enter Amended Final Judgment at 4, *United States et al. v. Ticketmaster Ent., Inc., et al.*, No. 1:10-cv-00139, Dkt. No. (D.D.C. January 8, 2020), ECF No. 22.

[7] *Id.* at 2.

[8] Amended Final Judgment, *United States et al. v. Ticketmaster Ent., Inc., et al.*, No. 1:10-cv-00139, Dkt. No. (D.D.C. Jan. 28, 2020), ECF No. 29.

[9] Minute Order, *United States et al. v. Ticketmaster Ent., Inc., et al.*, No. 1:10-cv-00139, Dkt. No. (D.D.C. Feb. 19, 2020).

IV. Live Nation Maintains Monopolies and Market Power Across the Live Concert Ecosystem Through an Anticompetitive and Exclusionary Course of Conduct

68. Live Nation maintains and exercises its power through a coordinated pattern of anticompetitive conduct that serves a variety of ends: expanding its scope and reach into every crevice of an increasingly more complex and interconnected ecosystem, eliminating rivals, continuing to increase barriers to entry, and inhibiting competition on the merits. Each act is exclusionary on its own. But the acts also work together across the ecosystem, enhanced by the flywheel and scale effects, to magnify the anticompetitive force of the scheme.

69. Live Nation's strategy includes several forms of anticompetitive conduct across its various intermediary roles that work in harmony to protect Live Nation's power and keep rivals at bay. For example:

- Live Nation enters into agreements with rivals not only to remove them, but also to cement and expand its dominance.
- Live Nation engages in threats (directly or through intermediaries) and pressure campaigns to nullify rivals or nascent threats.
- Live Nation relies on "carrots and sticks" to induce venues to sign long-term exclusive ticketing contracts that offer durable protection for Ticketmaster's dominance. Venues have seen that if they sign with a Ticketmaster competitor, they risk losing lucrative Live Nation concerts and may suffer other harmful retaliation.
- Live Nation conditions artists' access to its vast and desirable network of amphitheaters and other venues on choosing Live Nation as the promoter, which enables the company to expand its control over artists and third-party venues alike.

- Live Nation removes and neutralizes potential competitors and nascent threats via acquisitions, joint ventures, and other contractual agreements.

A. Oak View Group: Nascent competitor to a self-described "hammer" for Live Nation.

70. Live Nation and Oak View Group have colluded and established a partnership to allocate business lines, avoid competing with each other, and chart a mutually beneficial plan to cement Live Nation's dominance. Oak View Group is a leading American venue development and management company uniquely positioned to compete against Live Nation. Oak View Group has a portfolio of over 200 venues in the United States, including more than 100 venues that it manages but does not own. It was founded in 2015 by two industry giants whose combined résumés include roles as the former CEO of AEG, the former CEO of Ticketmaster, the former chairman of Live Nation, and the owner of The Azoff Company, whose portfolio includes one of the world's leading artist management companies: Full Stop Management.

71. Oak View Group's experience and relationships with venues and artists make it particularly well-suited to be a real competitor to Live Nation in the United States concert promotion business. Oak View Group's ownership structure also gives it a key asset any would-be promotions rival needs to compete against Live Nation: access to capital. In 2018, private equity firm Silver Lake invested $100 million in Oak View Group, in which it now holds a controlling stake.

72. Unsurprisingly, then, Live Nation recognized Oak View Group's promotion capability by categorizing Oak View Group as one of its "Biggest Competitor Threats" shortly after Oak View Group was founded. Over time though, Oak View Group and Live Nation morphed from competitors into partners who found it easier and mutually beneficial to work together rather than compete. Oak View Group now operates as an agent and a self-described

"pimp" and "hammer" for Live Nation, often influencing venues and artists for the benefit of Live Nation. As Oak View Group's CEO recently emphasized to Live Nation's CEO, "[j]ust like I tell our folks we 100% always protect you and LN on your lanes," and "I always protect you on rebates, promotor position, ticketing." The cozy relationship between Live Nation and Oak View Group covers several areas that ultimately impact fans.

73. First, Live Nation and Oak View Group have agreed to a competitive détente in concert promotions to avoid competition between the two companies over artists and tours. In 2016, for example, after learning that Oak View Group offered to promote an artist Live Nation had previously promoted, Live Nation's CEO immediately emailed Oak View Group, warning that such competition would only lead to artists demanding more compensation. He wrote: "whats up? We have done his [touring] and vegas[.] Let's make sure we don't let [the artist agency] now start playing us off." Oak View Group's CEO backed down: "Our guys got a bit ahead. All know we don't promote and we only do tours with Live Nation." Oak View Group's other co-founder followed up: "Growing pains," later noting that Oak View Group's executives "should never discuss comp [for artists]," and Oak View Group's talent buyers would work for Live Nation.

74. This was not a one-off episode. In 2022, Live Nation's CEO again challenged the CEO of Oak View Group after learning that Oak View Group made another direct promotions offer: "who would be so stupid to do this and play into [the artist agent's] arms"? Oak View Group's CEO again backed down: "We have never promoted without you. Won't." Oak View Group's CEO later added that he was "[m]ore than happy to do these deals thru LN as I have always been aligned," and that "I never want to be competitors."

75. As a Senior Vice President at Oak View Group explained to a colleague in 2019 when approached about potentially bidding on a tour: "It has been our policy to stay on the sidelines when it comes to buying and specifically promoting tour dates as we are cognizant not to compete with our partner Live Nation in this side of the business."

76. Second, just as Oak View Group effectively ceded the concert promotions space to Live Nation, Live Nation effectively ceded its arena consulting business to Oak View Group.[10] Shortly after its founding, Oak View Group formed an alliance with venues to provide "insights and access to premier sports and live entertainment content," a venture that encroached on Live Nation's own consulting business, Live Nation Arenas. To relieve this competitive friction, Oak View Group's CEO proposed that Live Nation Arenas combine with Oak View Group and that the head of Live Nation Arenas join Oak View Group's alliance board of advisors, which he did. In his proposal, Oak View Group's CEO warned the head of Live Nation Arenas, "[w]e are experiencing Arena's that want to play us off one another."

77. Live Nation identified three paths forward with regard to Oak View Group: "1) Lead 2) Follow 3) or get out of the way." Live Nation ultimately decided to "get out of the way" in deference to Oak View Group, just as Oak View Group agreed to get out of the way of Live Nation for promotions. In some instances, Live Nation Arenas and Oak View Group decided to partner with one another for agreements with venues, sharing the profits instead of competing for the contracts. The relationship between Live Nation and Oak View Group is so cozy that these venue partnerships were entered into on nothing more than verbal agreements. Through its venue development deals, venue management deals, and venue alliances, Oak View

[10] Arena consulting services are advisory services for venues that may include assistance with booking shows, selecting and working with promotors and ticketers, and getting sponsorship deals.

Group can help direct Live Nation content to venues across the country and demand or influence the use of Ticketmaster at these venues.

78. Third, Live Nation exploits its long-term relationship with Oak View Group to flip venues to Ticketmaster, further cementing Ticketmaster's power. In 2022, Live Nation and Oak View Group entered into a long-term agreement. Since then, Oak View Group has recognized it has a significant financial interest in maintaining existing Ticketmaster contracts at its venues and converting other venues to Ticketmaster. Oak View Group has pushed through these new contracts, subverting the ticketer selection process Oak View Group runs on behalf of its clients. As Oak View Group's CEO explained to Live Nation's CEO, the deal "allows us to tie up all Owned and Operated facilities to 10 year deals, develop a standard A and B market deal for all future projects and to convert all OVG 360 deals to TM now or as they expire for 10 years… Appreciate the consideration and partnership and all of us will work diligently on this so we are always aligned with TM."

79. Oak View Group projected it would flip at least 22 venues to Ticketmaster over the next four years. As venue manager, Oak View Group is able to control which non-incumbent ticketing services are invited to submit bids for ticketing service proposals and often only invites Ticketmaster. By advocating for Ticketmaster over rival ticketers, Oak View Group takes off the table several of the limited opportunities rival ticketers have to compete against Ticketmaster. So far, Oak View Group is on pace to hit its goal: in 2023 Oak View Group converted six venues to Ticketmaster.

B. Live Nation threatens rivals to blunt expansion into U.S. concert promotions.

80. Live Nation also wields its power to keep other rivals from expanding in the concert promotions market in the United States. For example, in 2021, Live Nation threatened commercial retaliation against private equity firm Silver Lake, unless one of its portfolio

companies, TEG, stopped competing with Live Nation for artist promotion contracts in the United States. These threats ultimately succeeded, and Silver Lake has tried to sell TEG altogether.

81. Prior to the TEG incident, Live Nation and Silver Lake had a relationship through Silver Lake's ownership of Oak View Group, which, as discussed above, became a functionary for aspects of Live Nation's anticompetitive scheme. But TEG's attempt to expand its role in the live music industry in the United States—a clear direct threat to Live Nation quickly threatened to sour that relationship.

82. Live Nation's campaign to squash competition with TEG took place at the highest levels. In 2021, Live Nation's CEO complained to Oak View Group's co-founder that TEG was "[f]ull on competitors." Oak View Group, in turn, conveyed to Silver Lake that Live Nation was "not happy." Live Nation's CEO then escalated his complaints to Silver Lake directly, conveying: "I am all in on [Oak View Group] where the big play lies with venues – why insult me with this investment in ticketing/promotions etc."

83. Later in 2021, Live Nation learned that TEG made offers to prominent artists in the United States and succeeded in securing a big-name artist for a concert at the Los Angeles Coliseum. In response, Live Nation used its exclusive ticketing deal with the venue to frustrate TEG's concert. For this concert, TEG reached an agreement with StubHub where TEG would sell a certain number of tickets on StubHub's platform. In response, Live Nation, through its subsidiary Ticketmaster, which purportedly was the exclusive ticketer for all shows at the venue, threatened to deny entry to any fan using a StubHub-issued ticket. Ultimately, StubHub stopped selling tickets and attempted to work with Ticketmaster to fulfill the tickets that it had already

sold. But Ticketmaster failed to fulfill many of those tickets to StubHub's customers, and hundreds of StubHub's customers were refused entry to the event.

84. After learning about the TEG concert, Live Nation's CEO again threatened Silver Lake, TEG, and Oak View Group. As Live Nation's CEO put it, he "fail[ed] to understand" why Silver Lake "continue[d] to invest in a business that competes with LN/OVG…." Live Nation threatened to pull its support from Oak View Group and instead back an Oak View Group competitor unless TEG stopped competing with Live Nation in the United States:

> I can assure you the OVG investment is a much bigger win then T[E]G …. LN declared to back OVG vs other developers or going solo and it's been a huge win for both sides– we have over 20 global arenas in development that neither could do without the other … do you really want LN backing [AEG's venue development and management company]…? Seems like a dumb trade off??

85. The co-founder of Oak View Group, who refused to allow TEG to promote any of his large roster of artist clients,[11] thereafter informed Live Nation that he was going to demand that Silver Lake sell TEG. Live Nation's CEO replied, "Love ya."

86. TEG soon stopped competing for concert promotions in the United States. Silver Lake now seems "intent on dumping teg" and has asked, through the founder of Oak View Group, whether Live Nation would be interested in purchasing TEG.

C. Using "carrots" and "sticks," Live Nation locks venues into exclusive, long-term ticketing agreements with Ticketmaster that shut out competition.

87. Live Nation puts a "choice" to venues: use Ticketmaster and potentially receive a significant payment for long-term exclusivity or use another ticketer and risk losing access to the vast array of Live Nation assets, including lucrative concerts. Sometimes Live Nation is bold and communicates this threat directly. Other times, the expression of the threat may be implicit, but

[11] Oak View's co-founder also owns a large artist management company, Full Stop Management.

the meaning is self-evident. And in some circumstances, Live Nation deploys its extensive network of intermediaries to communicate this "choice." Sometimes, the "choice" does not have to be communicated at all. It is well understood across the live concert industry, as a result of Live Nation's historical conduct and exactly as Live Nation intended, that choosing ticketers other than Ticketmaster carries enormous risk and financial pain.

88. Live Nation's reputation and history of retaliation are so well known in the industry that Live Nation does not have to (although it still does) explicitly threaten individual venues. Instead, its threats have become more public and generalized. As Live Nation's CEO told the industry in 2019, Live Nation's concert promotions business decides to host concerts "where we make the most economics," which usually means venues where Ticketmaster holds the primary ticketing contract. Venues considering primary ticketing options understand all too well the risks of switching to another ticketer, and some even model the loss they would suffer if they switched and lost access to some of Live Nation's concerts. The threat of steering shows away from venues allows Live Nation to exercise its monopoly power to get better promotions deals and impose Ticketmaster on venues.

89. Live Nation has a number of punitive tools it can use to retaliate against venues, even without making good on the catastrophic threat of pulling or moving concerts completely. In addition to reducing the number of concerts it places at a venue, Live Nation has the power to move shows to less desirable and less lucrative dates, curtail promotional efforts, and force venues to disable secondary ticketing on non-Ticketmaster platforms (potentially making unsure fans less likely to commit to tickets in the first place and frustrating fans who do buy tickets but change plans).

90. These kinds of threats and punishments are not just how Live Nation acquired its outsized power in every corner of this industry. In fact, Live Nation has continued to use this playbook in recent years. For example, in 2021, Live Nation threatened retaliation against a venue that had decided to switch from Ticketmaster to SeatGeek for primary ticketing. That venue had decided to switch, in part, because SeatGeek offered to share a greater percentage of the fees associated with secondary ticketing.

91. Upon learning about the potential switch, a senior Live Nation executive texted a not-so-subtle warning to the venue's CEO: "Apparently seatgeek are telling [nearby venue] and others that they have a contract deal with you guys already?? Anyways should think about bigger relationship with LN not just who is writing a bigger sponsorship check" [illegible] days later, Live Nation's CEO emailed the venue's owner that Live Nation "will be very concerned that seatgeek a secondary provider will be selling our LN artist tickets when not authorized by the artist."

92. Once the venue switched to SeatGeek, Live Nation followed through on its threats, re-routing concerts to other venues. Live Nation's promotions business also demanded that the venue disable secondary ticketing on SeatGeek's platform for all Live Nation-promoted concerts, depriving the venue and SeatGeek of secondary fee revenue.

93. Live Nation eventually relented and allowed the venue to enable secondary ticket sales—but only after (a) the venue agreed to split its share of secondary fee revenue (sourced through SeatGeek) with Live Nation, and (b) SeatGeek agreed to change its ticket-buying interface to make it conform, in some respects, to Ticketmaster's without regard to whether that was what fans or the venue preferred. In particular, Live Nation demanded that SeatGeek change the way it distinguished primary and secondary tickets (to make it more like Ticketmaster) and

limit the use of its fan-friendly tool called "DealScore." Given all of Live Nation's complaints, which it directed to the venue, it is unsurprising that within about a year, that venue returned to Ticketmaster.

94. The knowledge and awareness in the industry—that Live Nation will route shows away from venues that do not choose Ticketmaster—is so widespread that other intermediaries deliver threats and warnings to venues for Live Nation's benefit. For example, Oak View Group, Live Nation's self-described "hammer," has made such threats to at least one venue. And at least one other venue has been warned by a rival CEO that Live Nation would move shows away from the venue if it selected SeatGeek for primary ticketing services.

95. Even Live Nation's biggest competitors fear losing concerts if they do not use Ticketmaster. Live Nation's principal competitor, AEG, has an approximately 30% ownership stake in Anschutz Spectacor Management ("ASM Global"), a venue management company that manages more than 30 arenas in the United States. ASM Global resulted from a 2019 merger between AEG Facilities and Spectacor Management Group ("SMG"). Before the merger, SMG's legacy venues had used Ticketmaster as their exclusive primary ticketer, and AEG Facilities' legacy venues had used AXS as their exclusive primary ticketer. Through its minority interest in ASM Global, AEG advocated for AXS to serve as the exclusive primary ticketer for the ASM Global venues AEG now partially owned. But ASM Global's majority shareholder Onex worried that Live Nation would retaliate by withholding shows from ASM Global venues if ASM Global entirely switched away from using Ticketmaster.

96. To avoid losing access to concerts at ASM Global venues by "alienating" Live Nation, AEG was forced to accept that Ticketmaster would remain the dominant provider at ASM Global venues despite AEG's partial ownership of ASM Global and AEG's ability to

provide an alternative primary ticketer, AXS. AEG agreed Ticketmaster would remain the default primary ticketer for most ASM Global venues, with AEG reserving the right to use AXS for events promoted by AEG.

97. These threats—whether direct or indirect, explicit or implicit— coupled with Live Nation's multi-pronged strategy of long-term exclusive agreements, a history of retaliation, and other exclusionary conduct—means neither venues nor artists are free to choose ticketers based on their own assessment of price, quality, or value. They are not free to choose a ticketer based on the best technology, or most favorable contract terms, or simply what works best for them or—importantly—what works best for the fans that fill venues to see their favorite artists. Instead, venues, artists, fans, rivals, and others throughout the live concert industry must navigate an ecosystem created by Live Nation, defined by its dominance in promotions *and* ticketing, together with its extensive network of venues (especially amphitheaters), and limited by Live Nation's restrictions and restraints.

D. Ticketmaster's long-term exclusive agreements with venues are designed to lock up share and lock out competition, which forecloses a substantial share of primary ticketing markets.

98. Ticketmaster's long-term, exclusive agreements with venues are a key tool to protect Live Nation's stranglehold on the live concert industry, and on primary ticketing in particular. These agreements make Ticketmaster the sole provider of primary ticketing services for all or nearly all events held at a venue for multiple years, sometimes as long as 14 years.

99. Ticketmaster's exclusive agreements cover more than 75% of concert ticket sales at major concert venues, foreclosing a substantial share of the primary ticketing market from rival ticketers. In 2022 alone, for example, Ticketmaster signed several lengthy deals with major concert venues.

100. Ticketmaster is quite clear about why it focuses on these deals: they are, in Ticketmaster's own words, a "[h]edge against significant improvements by the competition or even a new competitor" because the "client is under contract for longer and not able to leave [Ticketmaster] or price the competition's offer into our new deal for an extended time." In other words, even if a rival ticketer were to offer a better price, a better product, or simply a better ticketing experience, a Ticketmaster-exclusive venue would not be able to choose the rival for a long time, often a decade.

101. Before its long-term exclusive agreements expire, Ticketmaster also works defensively to deny rivals the opportunity to compete at all. Ticketmaster often renews or extends these ticketing agreements before they expire, thus preventing rivals like SeatGeek and AXS from being able to bid at all. This not only eliminates the chance Ticketmaster will lose the contract but also mitigates competitive pressure on Ticketmaster to improve the terms of the contract.

102. To ensure their existing locked-in venues agree to early renewals and thereby block competition from a rival for the contract, Ticketmaster used COVID-19 as an opportunity to extend the terms of its existing long-term venue ticketing agreements by one year. After one venue resisted, telling Ticketmaster that it disagreed and intended to sign with a rival, Ticketmaster's counsel wrote: "Any effort by [the venue] to switch ticketing service providers before [the extension date] would be a breach of contract, and any announced intention to do so would be an anticipatory breach." In a conversation between that venue's CEO and Live Nation executives, Live Nation's CFO indicated Live Nation would "drop" the contractual dispute if the venue agreed to enter into a new ticketing contract with Ticketmaster, but not if the venue went with a rival.

103. Ticketmaster's renewal strategy not only blocks potential rivals but also creates friction—legal costs and otherwise—to ensure venues do not even try to pursue a competitive bidding process.

104. These strategies are part of a deliberate and defensive series of actions and decisions designed to lock up venues, lock out competitors, and hold the industry hostage from innovation and evolution. It is well recognized that "opening" venues, that is, eliminating exclusivity to permit multiple primary ticketers to service a venue or a particular concert, could benefit fans. Open venues can make it easier for fans to find tickets via multiple platforms and those platforms would be incentivized (in terms of price and technology) to compete for fans' purchases. Venues, too, could benefit, because having multiple ticketers would enable venues to increase the number of tickets sold, exercise greater choice over how tickets are sold or resold, and reach new audiences.

105. When venues have proposed non-exclusive ticketing contracts, Ticketmaster has almost invariably rejected the request, even outside the live concerts space. And even though Live Nation agreed to limited non-exclusivity for AEG-promoted shows at certain ASM Global venues as part of its recent contract negotiation—to dislodge its largest ticketing rival (AEG's AXS) from the very venues that its largest promotions rival (AEG) partially owns—Ticketmaster has refused to even consider it for other venues. If even AEG must acquiesce to Live Nation's demands that Ticketmaster exclusively ticket every show at AEG's own affiliated venues—save those shows promoted by AEG—no other major concert venue owner stands a chance.

106. While the industry and fans would benefit from "opening," Ticketmaster—as the incumbent monopolist—and its parent company, Live Nation, knows it would not. For Ticketmaster, the success of exclusivity combined with Ticketmaster's already high market share

in the United States are fool-proof ways to maintain its empire, the benefits of which are reflected in Ticketmaster's bottom line. Primary ticketing fees are far higher in the United States than in other countries around the world.

107. Ticketmaster's exclusive agreements also inhibit the growth of more specialized ticketing services and different business models. For example, Ticketmaster's exclusivity provisions deny most artists the ability to sell tickets directly to their most passionate fans and "fan clubs" through pre-sale windows. Since third parties often charge less than Ticketmaster, when selling to fan clubs through non-Ticketmaster ticketing systems, artists are better able to control ticketing fees. Through fan clubs or other alternative ticket distribution methods, artists can also offer tickets alongside other experiences and opportunities that can improve the concert experience or increase value for fans. Alternative distribution methods can also provide artists greater control over how, when, and to whom tickets are made available. Ticketmaster previously allowed tickets to be sold through third parties to fan clubs in accordance with its Fan Club Policy. But after acquiring one such third-party provider of tickets to fan clubs in 2018, Ticketmaster has used its exclusive ticketing contracts with venues to curtail artists' ability to use third-party providers for fan club sales—at the expense of artists' choice and their relationships with fans.

108. Ticketmaster further uses its extensive network of long-term exclusive ticketing contracts to raise the costs of rival ticketers and further heighten barriers to entry. For example, in the areas where despite Ticketmaster's best efforts, competitors still persist, Ticketmaster deploys its vast power and network to protect its monopoly. One example of this is Ticketmaster's encrypted mobile ticket program, SafeTix, Ticketmaster has added SafeTix to its suite of products and services in a manner that protects its position in primary ticketing, expands

its position in secondary ticketing, and undercuts the ability of rival ticketers to compete in either aspect of ticketing.

109. Pursuant to this program, Ticketmaster replaced the static barcodes on PDF—or other types of electronic tickets—with a constantly refreshing and encrypted barcode. Ticketmaster's SafeTix marketed this change as reducing the risk of ticket fraud from stolen or illegal counterfeit tickets. But the transfer restrictions implemented as part of this change also make it more difficult for a fan who wishes to buy or sell a SafeTix-encrypted ticket through a secondary platform to use a rival platform like StubHub or SeatGeek. Further, SafeTix introduces uncertainty as to when, or even whether, that ticket can even be transferred. If a ticketholder wants to sell or otherwise transfer a SafeTix-encrypted ticket, both the ticketholder and the purchaser must create Ticketmaster accounts (thereby providing Ticketmaster with their data), download the Ticketmaster app, and wait for Ticketmaster to determine when or whether the transfer can be completed. By reducing the incentives to enter secondary ticketing altogether, SafeTix not only reduces competition from existing rivals but also disincentivizes prospective innovators from considering secondary ticketing as a viable foothold for entering primary ticketing.

110. In addition to inserting Ticketmaster as an intermediary into secondary ticket transfers and transactions, SafeTix has also fortified Live Nation's data advantages over its rivals. According to internal documents, SafeTix was expected to grow the "size/value of the TM database," already by far the largest of any ticketer, by as much as 30 to 40%. As Live Nation's CEO put it, "[o]ne of the advantages we've launched under the transfer strategy is we now not only know the person that bought the ticket, but we're going to know those three people that you are taking to the show, which we have not known historically." Live Nation can monetize this

unique trove of data in its various businesses to both increase its bottom line and further entrench its positions across the live entertainment industry.

E. Live Nation restricts access to its venues unless Live Nation is paid to be the promoter.

111. Live Nation's control over a significant number of concert venues not only facilitates maintenance of Ticketmaster's monopoly in ticketing but also serves to limit artists' options and exclude rival promoters. Live Nation has a longstanding policy going back more than a decade of preventing artists who prefer and choose third-party promoters from using its venues. In other words, if an artist wants to use a Live Nation venue as part of a tour, he or she almost always must contract with Live Nation as the tour's concert promoter.

112. Live Nation's policy of restricting the use of its venues is particularly problematic for artists seeking to tour in large amphitheaters where Live Nation enjoys monopoly power. These artists—many of whom have well-established, dedicated fan bases but have not yet matured their fan base to play larger stadiums—are effectively forced to hire Live Nation as their promoter or risk being locked out of dozens of desirable Live Nation-controlled large amphitheaters in the United States. Live Nation's amphitheater portfolio includes at least 40 of the top 50, and more than 60 of the top 100 amphitheaters in the United States. No other entity owns more than a handful of amphitheaters in either set. This network of large amphitheaters has allowed Live Nation to attain a greater than 70% market share in large amphitheater promotions and become by far the largest promoter of national amphitheater tours. Put differently, it is nearly impossible for an artist to create a tour that includes stops at amphitheaters without Live Nation.

113. Live Nation senior executives know the company has restricted the use of its amphitheaters and other venues for years and often make the choice to sacrifice additional profits

the company could be earning as a venue owner by opening its venues to non-Live Nation promoted shows that are available to play at those venues. A 2018 internal Live Nation analysis found that its top 10 amphitheaters are "dark," or without shows, "on nearly 50% of their Saturdays in the summer," the highest performing day of the week during the primary performance season. Relatedly, a 2022 analysis found that Live Nation's top 15 amphitheaters are, on average, dark on eight Saturdays between June and September.

114. Live Nation also recognizes its amphitheater portfolio gives it control over artists pursuing an amphitheater tour. For example, a senior Live Nation executive directed his employees not to increase guaranteed payments offered to artists they know are looking for "True Amp Tours." This is because Live Nation recognizes these artists almost certainly will need to play several shows at Live Nation's stable of top amphitheaters, and to do so, they will need to sign with Live Nation as their promoter: "we know [artists] are likely playing amphitheaters and we are going to get those in most cases." Because many artists sign with Live Nation to promote their entire tour—both amphitheater and non-amphitheater shows alike—Live Nation's restrictive amphitheater policies help the company extend its reach to promoting artists in other venues as well. Further, because relationships are so important in the promotions business, once Live Nation uses its exclusionary amphitheater policy to lock in emerging artists early in their careers, they are able to keep some of those artists as they graduate to higher capacity venues, such as arenas and stadiums.

F. Live Nation strategically acquires promoters, venues, and festivals to eliminate rivals, expand its network, and grow its "moat."

115. To protect and expand its positions across the live entertainment industry, Live Nation has pursued a strategy of acquiring nascent threats and neutralizing rivals. This strategy has included acquiring promoters, amphitheaters, festivals, other venues, and even small

ticketers, as well as entering into long-term exclusive booking contracts with many venues. Although many of these rivals were relatively small at the time of their acquisitions, Live Nation's internal documents show that the company viewed them as some of its "biggest" threats. This is unsurprising given the lack of sizeable, scaled, national competitors in the markets in which Live Nation operates. Live Nation's conduct has thwarted growth of its rivals and disincentivized investment that might have led to entry. Nonetheless, Live Nation viewed many of these acquisitions of competitors on the "edge" as necessary to protect its "moat" around the live concert ecosystem.

116. In its own words: "Live Nation is a company founded on acquisition. At its inception, Live Nation began rolling up the regional world of promoters and venues and has not stopped since." Over the past decade, Live Nation has acquired dozens of companies across the industry to expand its reach and entrench its positions.

117. Live Nation has recognized that one of its "Biggest Competitor Threats" is smaller and regional independent promoters that have the ability to "com[e] in from the edges creating events, opening venues, and purchasing artist inventory." To address this disruptive potential, Live Nation pursued an aggressive plan to acquire or co-opt key independent promoters, even when the economics of a particular deal did not make sense for its promotions business. Live Nation personnel justified the counterintuitive economics for these transactions by looking at the long-term benefits: reducing competition for artists, including by "keeping the [artist] guarantees down" and stopping competitors from "driving the price up" for artists.

118. Live Nation's acquisitions have, over time, constrained artists' choice of promoters. This is especially true for nationwide tours and has the effect of further increasing venues' dependence on Live Nation for content. As a major venue in New York City recognized,

Live Nation has made significant acquisitions of top independent promoters over the past decade, eliminating most mid-tier promoters and leaving primarily small, concert promotion companies with little market share.

119. Below are some specific examples of Live Nation's acquisition strategy in practice.

120. **United Concerts**. In 2017, Live Nation acquired United Concerts, a promoter and venue owner in Utah, whose venues included the most popular large amphitheater in the state. Live Nation acquired United Concerts in part to eliminate a potential competitive promotions threat and to starve a competing primary ticketer of customers.

121. Before Live Nation bought United Concerts, many venues in Utah, including United Concerts' venues, used a regional ticketing company called SmithsTix.[12] Internally, Live Nation noted that SmithsTix had taken Ticketmaster's "last client in Utah" and left a "barren landscape[]" for Ticketmaster there. Live Nation chose not to acquire SmithsTix directly because doing so would "require us to go to the DOJ [to notify them as required under the 2010 consent decree that it planned to acquire a primary ticketing company] and that's something we wouldn't necessarily want to do." Instead, Live Nation went bigger while sidestepping the notification requirements of the consent decree: it acquired United Concerts and its venues, and *then* converted those venues to Ticketmaster. Left "with only a few small clients," SmithsTix ultimately went out of business.

122. **AC Entertainment**. In 2016, Live Nation acquired a controlling stake in AC Entertainment—a regional independent promoter in the Southeast and one of Live Nation's

[12] The prior owner of United Concerts also owned DATATIXS, a regional ticketing company that operated under the SmithsTix brand. SmithsTix provided ticketing services to more than 40 venues throughout Utah, including the arena that the home of the Utah Jazz.

internally designated "Biggest Competitor Threats." AC Entertainment promoted over 1,000 shows a year, including arena and amphitheater shows. AC Entertainment also controlled the venue booking decisions at 14 historic theaters and clubs throughout Tennessee and the Carolinas and promoted major music festivals, including Bonnaroo.

123. Live Nation pursued the acquisition even though it had doubts about the standalone economics of the deal. Live Nation's Chief Strategy Officer explained to Live Nation executives: "The numbers are not super exciting and this feels like more of a defensive move to (I) Keep [rival] AEG out of the region especially creating situation where [a well-known artist manager] can play both sides in Nashville." Live Nation's Chief Strategy Officer also recognized that the acquisition helped "grow[] our moat in the [Nashville] market," while another internal document touted the benefit of "lower competition in the Region and specifically in Nashville."

124. **Frank Productions and National Shows 2**. In 2018, Live Nation acquired yet another "Biggest Competitor Threat" in rival promoter, Frank Productions. Frank Productions owned four theaters and clubs in Wisconsin—one of which competed with a Live Nation-operated venue. When its owners looked to transition the business to new ownership as they stepped back, Live Nation jumped at the opportunity to take another edge competitor off the board, and out of the hands of any other potential buyer.

125. Live Nation used this acquisition, in part, to convert Frank Productions' venues to Ticketmaster. Frank Productions previously selected other primary ticketing service providers over Ticketmaster because it had "a difficult time wrapping their head around why they would do business with a company [Live Nation/Ticketmaster] who will be in direct competition with them in their home market." Recognizing that Frank Productions venues' ticketing contracts

were set to expire not long after the acquisition, Live Nation acquired the company and then flipped the venues to exclusive Ticketmaster contracts.

126. Live Nation also acquired Frank Productions' subsidiary, National Shows 2—yet another firm listed as a "Competitor Threat." National Shows 2, which promoted over 350 shows per year in the United States, was one of a small number of competitors to Live Nation in the Nashville region after Live Nation bought AC Entertainment, the acquisition described *infra* ¶ 122, in 2016.

127. **Red Mountain Entertainment**. In 2018, Live Nation acquired Red Mountain Entertainment, a regional promoter that promoted shows in Alabama and Mississippi, including several music festivals throughout the Southeast. At the time of the acquisition, Red Mountain also operated and/or exclusively booked concerts at Wharf Amphitheater in Orange Beach Alabama, Brandon Amphitheater in Brandon, Mississippi, and Tuscaloosa Amphitheater in Tuscaloosa, Alabama. Red Mountain had been on Live Nation's radar since at least 2016 when a Live Nation executive indicated it had an "active plan to mitigate further expansion" by Red Mountain because Live Nation "[c]an't get complacent and let small guys encroach from the edges." Live Nation recognized that Red Mountain's control of the Tuscaloosa Amphitheater was driving up compensation to artists, and so it wanted control of the Tuscaloosa Amphitheater to "keep[] the guarantees down" to artists.

128. As Red Mountain grew, Live Nation unleashed what it called a "velvet hammer" by warning that it would cut off "the content flow on artist[s]" to Red Mountain venues if Red Mountain continued to compete as a promoter. A Live Nation executive described the message he communicated to Red Mountain: "Either we are together or we are competitors. Seemed to work, as they had 3 venues, 2 festivals and another venue coming online in [20]18, and wanted

the content flow on artists where we had touring rights to in the U.S. Velvet Hammer." Red Mountain ultimately agreed to sell its business to Live Nation.

129. **313 Presents ("313")**. In 2018, Live Nation co-opted a Detroit-based competitor, 313, by entering into a multi-faceted agreement. Prior to the agreement, Live Nation recognized 313 predecessor organizations, Palace Sports and Olympia Entertainment, as "competitors" since they "make direct offers to artists." As such, Live Nation and the co-founder of Oak View Group concocted a "scheme" to "put [Olympia] out of the promoting side." After the agreement, Live Nation stopped competing with 313 over venues in the Detroit market while 313 stopped competing against Live Nation for artist talent. 313 recognized that without the agreement, 313 and Live Nation would be forced to compete to the benefit of artists.

130. The agreement worked to suppress competition to the benefit of both parties. 313 Presents saw reduced talent costs and avoided competition from an expanding venue operator. Live Nation, meanwhile, disarmed another promotions competitor, secured exclusive deals at three amphitheaters, and locked-up several venues with Ticketmaster for years to come. Today, 313 controls several of the most popular concert venues in the Detroit live music hub.

131. **ScoreMore Shows**. ScoreMore Shows was a regional promoter in Texas that Live Nation identified as a "Competitor Threat." Around 2017, Live Nation agreed with ScoreMore not to compete to sign artists in Dallas and to pool their collective revenues to co-promote artists. After that agreement was in place, in 2018, Live Nation acquired a majority stake in ScoreMore Shows. Internal Live Nation documents celebrated that ScoreMore and Live Nation were "no longer competing" or "driving the price up" for booking artists. Live Nation replaced rivalrous competition with cooperation. As the CEO of ScoreMore Shows stated to Live Nation:

> [Y]ou are forgetting that **in pooling these revenues it also meant that we were no longer competing. We weren't driving the price up, either**. We haven't

> been sending offers or telling agents anything but "yes, that's good, we work with LN, we will copro[mote] there." [S]o if we were on our own (without the pool), sending our own offers, putting in indie rooms, driving the price up … do you think the [contribution margin] would be the same? [W]ould you still think we don't provide the value?

132. For Live Nation, the value of no longer competing with ScoreMore meant that it could book more shows while paying less to artists. Live Nation's CEO wrote to ScoreMore's CEO, "I agree that measurement is what you book and what you stand down for overall win……"

133. **Logjam Presents**. In 2023, Live Nation acquired a majority stake in Logjam Presents, the leading promoter and venue operator in Montana. Prior to the acquisition, the Logjam Presents venues used a competing primary ticketing service provider. As with previous acquisitions, Live Nation switched Logjam venues from the competing primary ticketing service provider to Ticketmaster once its ticketing agreement expired.

134. At the same time Live Nation was acquiring the businesses identified above, Live Nation was also building a "top tier festival portfolio through acquisitions." Live Nation recognized that the "Proliferation of Festivals" was one of its "Biggest Competitor Threats" because these outdoor shows threatened to "cannibaliz[e] high margin amp shows." In executing this strategy, and to help protect its power and position in amphitheaters, Live Nation acquired several popular and widely attended festivals, including, Austin City Limits, Lollapalooza, Electric Daisy Carnival, Bottlerock, Mountain Jam, Shaky Knees, Houston Free Press Summer, Governor's Ball, and others.

135. Beyond its outright acquisition of venues, some of which are described above, Live Nation has entered into long-term exclusive booking contracts to augment its control of venues, particularly large amphitheaters. In recent years, Live Nation has entered into long-term exclusive booking agreements with more than a dozen large amphitheaters and long-term leases

with several additional amphitheaters as well. While the specific terms vary from agreement to agreement, these exclusive booking agreements generally provide Live Nation the exclusive right to control which artists may use the venue, cementing Live Nation's ability to reward artists it promotes while locking out artists promoted by third-party competitors. Some agreements also provide Live Nation with some degree of control over other aspects of the venue's operations such as concessions and ticketing.

V. Anticompetitive Effects and Competitive Harm

136. Live Nation has engaged in individual anticompetitive acts that have themselves harmed competition. But those individual acts have also had the desired effect of working together in a mutually reinforcing manner to enhance Live Nation's flywheel, suffocate competition, and inhibit the evolution of the live music industry that competition could and should usher in. Live Nation (and its subsidiaries like Ticketmaster) has inserted itself into nearly every corner of the live music industry, which inures to the benefit of Live Nation, but comes at a real cost to fans, artists, venues, and to the competitive process more broadly. Live Nation's conduct, taken individually and collectively, has complicated and exploited the relationship between artists and fans for the delivery of live entertainment and increased its bottom line.

137. The anticompetitive effects of Live Nation's distortion of the competitive process cascade through a number of interrelated relevant antitrust markets and fall upon the various entities within those markets. Live Nation's anticompetitive actions allow Live Nation to impose costs and take more for itself, obstruct innovation, impede competitors and nascent threats, and maintain its monopolies and power.

138. Because the competitive process has systematically and intentionally been corrupted, there has been less competition than there otherwise would have been in the live

music industry over a variety of dimensions, including, ticketing fees, contractual terms, output, quality, and innovation. For example, due to Live Nation's anticompetitive conduct:

- Fans have paid more in fees that are not transparent, not negotiable, and cannot be comparison-shopped because there are no other options;
- Fans have been denied access to the benefits a competitive process would deliver, such as more choices in concerts and innovative fan-friendly ticketing options;
- Artists have had fewer opportunities to play concerts, and fewer real choices for promoting their concerts, selling tickets to their own shows, and performing at certain venues; and
- Venues have fewer real choices for obtaining concerts and ticketing services, and many are reluctant to disrupt the status quo due to the financial risk.

139. Live Nation has used its unlawfully maintained power in promotions, large amphitheaters, and ticketing to siphon an inflated portion of the money flows from the concert ecosystems and impose additional costs through a web of overlapping agreements with other industry participants. For example, Live Nation's "take rate"—the sum of the various cuts of fees and payments it takes through contracts across the concert industry—as the dominant intermediary is higher than it would be in a marketplace without Live Nation's anticompetitive scheme. Through interconnected agreements associated with Live Nation's various roles as ticketer, promoter, artist manager, and venue owner, Live Nation has created a feedback loop that pushes ticketing and ancillary fees higher while allowing Live Nation to be on all sides of numerous transactions and thereby double-dip from the pockets of fans, artists, and venues.

140. Likewise, Live Nation's role as gatekeeper for the venues it owns or controls, especially large amphitheaters, means that touring artists who intend to play several concerts in

large amphitheaters are effectively forced to hire Live Nation, or face reduced compensation and access to fans. Rival promoters are unable to promote artists at many in-demand venues, hampering their ability to compete against Live Nation. And fans attending concerts at Live Nation-controlled amphitheaters get access to fewer shows and see fewer artists than they otherwise would because only Live Nation-promoted artists are allowed to perform there. In many instances, these same fans also face higher prices for ticketing and ancillary services, because Live Nation, acting as the primary ticketer, promoter, and venue owner, faces little competition in each of these interconnected markets. On the other hand, fans who live near the few remaining amphitheaters owned and booked by third parties may not have access to Live Nation's stable of artists, who are instead routed disproportionately through Live Nation's venues.

141. Live Nation has created and now protects a system that inhibits artists, fans, and venues from making choices that should exist in a free market, whether that is choosing a concert promoter or a primary ticketer. And by locking venues into its business model, Live Nation has also dampened competition that otherwise would push fees down for fans. As a result, market forces that ordinarily would constrain the fees borne by fans are absent.

142. Each aspect of Live Nation's scheme erects barriers for rivals and nascent threats to compete on the merits in the alleged markets with better, lower-priced, or different services. This scheme also cements an industry structure that requires would-be competitors to enter multiple markets simultaneously and at scale to compete effectively, further increasing entry barriers. Without Live Nation's exclusionary conduct, rivals and nascent threats could bring more innovations to the marketplace, develop important scale to improve offerings, further enhance their competitive reputation, increase investments, create disruptive business models, or

expand. If those rivals and nascent threats were able to compete on a level playing field, the entire ecosystem, including artists, venues, fans, and others, would realize the many benefits of competition.

143. Based on Live Nation's conduct, venues reasonably fear the disruption, retaliation, and complications of partnering with anyone other than Live Nation lest they lose access to culturally significant and lucrative concerts. That has predictably raised rivals' costs. For example, it has forced at least one ticketing rival to agree to venues "make good" or "lost event guarantee" clauses in some of its ticketing contracts if those venues choose that rival and Live Nation, as predicted, retaliates. These clauses obligate the rival ticketer to compensate its venue customer if Live Nation diverts or pulls concerts in response to a venue choosing a rival ticketer over Ticketmaster. In other words, Live Nation's conduct not only constrains which ticketer venues may choose, but also inhibits and raises costs for rival ticketers who try to compete with Ticketmaster.

144. Competition on the merits would enable more innovation and better products. For example, rivals might bring fan-focused innovations to the marketplace, such as a more streamlined user interface and purchase flow, insightful presentation of ticket inventory, enhanced buying options, or more flexible refund policies. Instead, those would-be rivals face artificial barriers obstructing their ability to gain traction in the marketplace, which in turn dampens incentives to innovate.

145. Live Nation's conduct and power also lessens the competitive pressure to innovate to improve its own products, platforms, and services. Concerns about Ticketmaster's ticketing technology are widespread and have made national news. Facing limited competitive pressure, Ticketmaster has less incentive to invest more into proactively improving its ticketing

products.. Live Nation instead uses the capital it might otherwise spend on technological improvements to sweeten ticketing contracts for venues to keep them locked into long-term exclusive agreements and out of the hands of rivals.

VI. Relevant Markets and Monopoly Power

146. Courts define a relevant product and geographic market to help identify the lines of commerce and areas of competition impacted by alleged anticompetitive conduct. There can be multiple relevant markets covering the same or similar products and services, and markets need not have precise metes and bounds. A relevant market also may include distinct groups or clusters of customers or sellers, where those customers or sellers are identifiable and particularly susceptible to anticompetitive conduct by a monopolist or others.

147. Additionally, there may exist within a relevant product market a nested sub-market that itself constitutes a relevant antitrust market. Such a market may be defined based on differences in products or services within the broader market or differences in the competitive conditions faced by various customer groups within the broader market. Where such a submarket exists, it may be helpful to also examine the effects of anticompetitive conduct within these relevant markets, as the effects may be particularly acute or significant. Additionally, there may be related markets adjacent to each other within an industry that offer distinct products and services, potentially to distinct customers, where competitive dynamics within one market impact competition within the other.

148. Live Nation has its tentacles in virtually every aspect of the live entertainment industry. As a result, Live Nation's conduct has harmed artists, venues, and fans through the loss of competition in several relevant antitrust markets related to ticketing and promotions. Practical indicia in the industry, the structure of the industry and behavior of market participants, along

with substantial evidence that includes ordinary course documents, economic analysis, and other evidence support the relevant markets identified below:

- *Primary Ticketing Services Markets* – Primary ticketing providers offer a variety of services to two distinct sets of customers: major concert venues and fans. The particular products and services offered to and the competitive conditions faced by these two customer groups are distinct but related.
    - First, with respect to venues, there is a relevant market for the provision of primary ticketing services to major concert venues in the United States ("primary ticketing services market"). This market includes within it a relevant submarket, which is in and of itself a relevant market, for the provision of primary *concert* ticketing services to major concert venues in the United States ("primary concert ticketing services market").
    - Second, with respect to fans, there is a relevant market for primary concert ticketing offerings to fans at major concert venues in the United States ("fan-facing primary ticketing market"), and there is a relevant market that includes both primary concert ticketing offerings and services that offer resale of concert tickets ("fan-facing ticketing market").
- *Concert Promotions Services Markets* – Concert promoters similarly offer a variety of services to two distinct sets of customers: major concert venues and artists. The particular products and services offered to and the competitive conditions faced by these two customer groups are distinct but related.

- First, with respect to venues, there is a relevant market for the provision of concert booking and promotional services to major concert venues in the United States ("venue booking and promotion services").
- Second, with respect to artists, there is a relevant market for the provision of promotional services to artists performing in major concert venues in the United States ("artists promotions market").

- *Artist Use of Large Amphitheaters* – Owners, operators, and exclusive bookers of large amphitheaters offer artists use of large amphitheaters for their shows. The provision of the use of large amphitheaters and ancillary services to artists for large amphitheater tours is a relevant market ("use of amphitheaters market").

149. Even where Live Nation's anticompetitive conduct appears to affect a single relevant market, its effects on fans, artists, venues, and others directly reverberate across the live entertainment industry. Likewise, due to the anticompetitive scheme's overall effect of maintaining Live Nation's market power and monopolies and the self-reinforcing aspects of Live Nation's flywheel, effects are felt across the ecosystem regardless of the market in which any particular anticompetitive act has the most direct impact.

A. Primary Ticketing Services Markets

136. Primary ticketing providers offer venues and fans a variety of related but distinct services. Primary ticketing services allow a venue to sell, track, and distribute some or all of the tickets for a show. From the fan perspective, primary ticketing services allow fans to purchase tickets for a show when it first goes on sale to the public and provide a bundle of services that handle payment processing and customer service. Often in today's market, contracts between primary ticketing services and venues dictate the terms and conditions on which primary

ticketers are able to offer tickets to fans, directly impacting (and often limiting) competition for these services from the fan perspective.

i. Primary Ticketing Services to Major Concert Venues

150. The provision of primary ticketing services to major concert venues is a relevant product market. Primary ticketing services are sold to venues, the customers for these services. Primary ticketers contract with venues to provide an array of services. This array of services includes the initial (or primary) sale and distribution of tickets for events at the operative venue, underlying technology, and various business support functions. Primary ticketers for major concert venues require, among other things, sophisticated software capable of handling complex ticketing arrangements and high-demand on-sales, back-office support functions, and consumer data for marketing. In addition, primary ticketers for major concert venues that also host sporting events often must provide support for distributing a team's season tickets. The choice of primary ticketer is a key decision for major concert venues because ticketing operations can materially impact the fan experience at, and reputation of, the venue.

151. The venues most directly impacted by Live Nation's scheme are major concert venues. These are venues big enough to host major concerts and able to provide a suitable environment and infrastructure for widely attended concerts, like large arenas and amphitheaters. As a result, major concert venues are popular locations for concerts and generate a substantial portion of their revenue from them. Because primary ticketers individually negotiate with venues over pricing and other terms, primary ticketers take into account venue size and how important concert ticketing is to a given venue when submitting a bid. Because major concert venues are particularly susceptible to the effects of Live Nation's conduct, and can be targeted, they are appropriately considered together in evaluating that conduct. Internal documents indicate that

Ticketmaster monitors different categories of venues to inform its business decisions and individual negotiations, including size of venue and importance of concert revenues to the venue.

152. The United States is a relevant geographic market for the provision of primary ticketing services to major concert venues. Major concert venues in the United States require providers of primary ticketing services capable of fulfilling contractual requirements within the United States. Internal Ticketmaster documents support the United States as a relevant geographic market. For example, Live Nation evaluates the business and competitive conditions in segments within the United States separately from Canada.

153. There are no reasonable substitutes for primary ticketing services to major concert venues, nor is arbitrage reasonably possible. Given the significant investment and technology required to build and maintain a primary ticketing service, self-supply is a not a reasonable substitute for most major concert venues. Additionally, secondary ticketing services are not reasonable substitutes. *First*, the intended purpose of secondary ticketing services is different than for primary ticketing services. Whereas primary ticketing services are meant to facilitate and run ticket sales on a venue's behalf, secondary ticketing services are meant to facilitate ticket purchasers' resale of their ticket(s). *Second*, ticketholders and fans—not venues—are ticketers' typical customers on the secondary ticketing platform. *Third*, the platforms for primary and secondary ticketing services are functionally very different. Internal Ticketmaster documents recognize these kinds of differences by, for example, analyzing the performance and competitive conditions of primary ticketing separately from secondary ticketing.

154. For these and other reasons, a monopolist in primary ticketing services to major concert venues in the United States would be able to maintain prices above competitive levels and/or maintain quality below the level that would prevail in a competitive market.

155. Live Nation—through Ticketmaster—has a durable monopoly in primary ticketing services for major concert venues in the United States. For example, in 2022, Ticketmaster accounted for at least 70% of the total face value associated with all tickets sold at large arenas and amphitheaters. No other rival ticketed more than 14%.

156. Live Nation's monopoly power in primary ticketing for major concert venues in the United States also is demonstrated by its ability to control prices and/or exclude competition. For example, in the United States, where Ticketmaster has a higher market share relative to other markets, Ticketmaster is able to charge higher prices and impose higher fees not tied to higher costs. In addition, Live Nation has the ability to exclude competition. Some examples of its power and scheme are described above, such as successfully threatening and retaliating against venues that consider a rival primary ticketer and imposing various other restrictive contractual terms.

157. Live Nation's primary ticketing services monopoly for major concert venues in the United States is also protected by significant barriers to entry and expansion. Successfully building primary ticketing capabilities requires substantial investment and access to scale. Live Nation touts its enormous scale as an advantage. Live Nation's scale and its flywheel exacerbate the barriers to entry and expansion in primary ticketing. Live Nation uses its monopoly power in concert promotions to foreclose competition in primary ticketing and erects additional barriers to entry, which prevent ticketers who are not vertically integrated from competing on a level playing field. Live Nation's agreements and exclusionary conduct act as further barriers to entry because they impede rivals' ability and incentives to compete.

158. Within this market exists a narrower relevant product market for the provision of primary ticketing services for concerts and comedy events ("concerts")[13] to major concert venues. There are some unique attributes to providing primary ticketing services for *concerts* to major concert venues such that there are no reasonable substitutes, nor is arbitrage possible. For example, some primary ticketing features are particularly important for concerts, including the ability to handle complex on-sale processes, surge traffic, and specific types of marketing initiatives. In addition, financial arrangements contracting, and fees charged to fans for primary ticketing services can differ for concerts as compared to other event types like sports. This is due, at least in part, to how lucrative hosting concerts can be for major concert venues. Thus, viable competitive alternatives for primary ticketing services for concerts at major concert venues can be, and are, different than for other live events. Internal Live Nation documents analyze concert ticketing separately from ticketing for other events and identify venues for which concert revenues are particularly important.

159. Live Nation—through Ticketmaster—has a durable monopoly in primary concert ticketing services for major concert venues in the United States. For example, Ticketmaster accounts for at least 80% of the total face value associated with all concert tickets sold at major concert venues.

160. For the same reasons as stated above, there are substantial barriers to entry and expansion within this narrower market. A monopolist in primary concert ticketing services at

[13] Live music concerts and comedy shows (as well as musical artists and comedians) have competitive similarities in terms of tour planning, on-sale events, and venue suitability. Ordinary course evidence suggests that concerts and comedy events are assessed and treated similarly as a matter of industry practice.

major concert venues in the United States would be able to maintain prices above competitive levels and/or maintain quality below the level that would prevail in a competitive market.

ii. Primary Concert Ticketing Offerings to Fans at Major Concert Venues

161. The provision of primary concert ticketing offerings to fans at major concert venues is a relevant product market. Fans rely upon primary concert ticketing offerings to purchase tickets to concerts. Primary ticketers typically provide an online interface to purchase tickets to a concert during an initial on-sale and continue to offer tickets for sale until the show is sold out. In addition to facilitating the purchase of tickets, primary concert ticketing offerings typically also provide customer service to fans, employ mechanisms to detect and prevent fraudulent purchases, store credit card information, keep track of fan purchases, and provide fans other related services. Primary concert ticketing offerings to fans at major concert venues require, among other things, sophisticated software capable of handling complex ticketing arrangements and high-demand on-sales and databases. Currently in the United States, except in rare cases, only a single primary ticketing service is offered to fans to purchase tickets to a given concert, and typically, only one primary ticketing service is offered to fans to purchase tickets during all on-sales for a given venue.

162. Resale services offer a different service: the resale of previously purchased tickets. Thus, in order for a ticket to be available for resale on a secondary ticketing marketplace, the ticket must have already been purchased from a primary ticketing offering, with the purchaser having already paid the fees associated with the primary ticketing offering. Accordingly, the fees (and often ticket prices) associated with resale marketplaces are not closely related to the fees associated with primary ticketing offerings, because primary ticketing fees are baked into the price of tickets being resold on these marketplaces.

163. Likewise, other means of obtaining tickets during an initial on-sale are limited and not available to all fans. Ticketmaster makes available a limited number of tickets to ticket brokers but charges fees for the initial transfer of tickets to these brokers before those tickets can be resold to fans. Ticketmaster also allows for the limited ticket sales to artist fan clubs in some circumstances, but such ticket sales are limited in number and not all fans are eligible to purchase tickets through these channels. As a result, they do not represent reasonably close substitutes for most fans today, although they could in the future but for Ticketmaster's anticompetitive conduct.

164. In addition, fans may not view primary and resale tickets as close substitutes due to a perception that a primary ticket purchase is more "secure" or "guaranteed" as compared to a resale purchase.

165. Internal documents indicate that Live Nation tracks its share of primary concert ticketing separately from its share of resale ticketing and identifies a distinct set of competitors in each segment. Live Nation also monitors its share of concert ticketing separate from its share of ticketing for other types of shows.

166. The United States is a relevant geographic market for primary concert ticketing offerings for fans. Fans seeking to attend shows in the United States must use primary concert ticketing services that offer tickets for those shows. Internal Live Nation documents support the United States as a relevant geographic market. For example, Live Nation evaluates the business and competitive conditions in segments within the United States separately from Canada.

167. For these and other reasons, and consistent with industry information, a monopolist in primary concert ticketing offerings to fans at major concert venues in the United

States would be able to maintain prices above competitive levels and/or maintain quality below the level that would prevail in a competitive market.

168. Live Nation—through Ticketmaster—has a durable monopoly in primary concert ticketing offerings to fans at major concert venues in the United States. For example, in 2022 Ticketmaster accounted for at least 80% of the total face value associated with all concert tickets sold at major concert venues.

169. Ticketmaster's monopoly power in primary concert ticketing offerings to fans at major concert venues in the United States is further demonstrated by its ability to control prices and/or exclude competition. In the United States, where Live Nation maintains a high market share in arenas and amphitheaters through its exclusive contracts and owned and operated venues, Ticketmaster has much higher fees relative to other countries notwithstanding comparable costs. In addition, Live Nation has the ability to exclude competition by insisting that venues utilize only Ticketmaster for all shows and for all tickets sold for a given show.

170. Live Nation's monopoly in primary concert ticketing offering to fans is also protected by significant barriers to entry and expansion. To successfully build primary concert ticketing capabilities requires substantial investment and access to scale. Live Nation touts its enormous scale as an advantage. Live Nation's scale and its flywheel exacerbate the barriers to entry and expansion in primary ticketing. Live Nation uses its market power in concert promotions to foreclose competition for primary ticketing service for fans, while also erecting additional barriers to entry that prevent, by preventing ticketers who are not vertically integrated from competing on a level playing field. Live Nation's agreements and exclusionary conduct act as further barriers to entry because they impede rivals' ability and incentives to compete.

171. Although the provision of primary concert ticketing services to fans is a relevant product market, in the alternative, there is also a broader relevant product market that includes both primary concert ticketing offerings and services that provide resale for concert tickets to fans at major concert venues. For the reasons above, primary concert ticketing offerings to fans offer distinct services from resale service providers, and resale marketplaces necessarily rely upon an initial sale of a ticket via a primary concert ticketing service (inclusive of the primary ticketing fees) in order for the resale marketplace to exist. Nonetheless, a fan looking to purchase a concert ticket may be able to purchase such a ticket from a primary ticketing offering or resale service provider. To the extent the two markets are combined into a larger market, internal documents show that Live Nation has substantial market power or monopoly power in this broader market as well.

172. The United States is a relevant geographic market for concert ticketing offerings and resale services for fans. Fans seeking to attend concerts in the United States must use ticketing services that offer tickets for those shows. Internal Live Nation documents support the United States as a relevant geographic market. For example, Live Nation evaluates the business and competitive conditions in segments within the United States separately from Canada.

173. For these and other reasons, and consistent with industry information, a monopolist in a combined market of primary concert ticketing offerings and services that provide resale of concert tickets to fans for shows in the United States would be able to maintain prices above competitive levels and/or maintain quality below the level that would prevail in a competitive market.

174. Live Nation—through Ticketmaster—has a monopoly in this market. For example, in 2022, Ticketmaster accounted for more than 70% of the total transactions associated

with all tickets sold or resold for concerts at major concert venues in the United States. Transaction volume is an economically relevant measure of power in this market. Importantly, these numbers capture only transactions handled principally by Ticketmaster. But, as discussed above, because of Ticketmaster's use of technology like SafeTix, Ticketmaster necessitates its involvement in the resale of tickets that take place entirely on rivals' secondary ticketing platforms. In doing so, Ticketmaster is able to exert some degree of control over these transactions as well as obtain valuable fan data related to ticket transfers. As a result, Ticketmaster's share understates its competitive significance in this market.

175. Ticketmaster's monopoly power in this market also is demonstrated by its ability to control prices and/or exclude competition. For example, Ticketmaster is able to charge higher prices in areas where its power is greatest (notwithstanding comparable costs), as evidenced by the much higher fees charged in the United States, where Ticketmaster has a high market share, relative to elsewhere where its shares are much lower. In addition, Live Nation has the ability to exclude competition. Some examples of its power and scheme are described above, such as successfully threatening and retaliating against venues that consider a rival primary ticketers and imposing various other restrictive contractual terms.

176. Live Nation's monopoly over primary concert ticketing offerings and services that provide resale of concert tickets is also protected by significant barriers to entry and expansion. To successfully build primary ticketing capabilities requires substantial investment and access to scale. Live Nation touts its enormous scale as an advantage. Live Nation's scale and its flywheel exacerbate the barriers to entry and expansion in primary ticketing. Live Nation uses its market power in concert promotions to foreclose competition to become a primary ticketing offering for fans and erects additional barriers to entry, by preventing ticketers who are not vertically

integrated from competing on a level playing field. Additionally, Live Nation has taken steps to impede resale providers from efficiently facilitating the resale of tickets, including by hindering the transfer of tickets originally sold by Ticketmaster. Live Nation's agreements and exclusionary conduct act as a further barrier to entry because they impede rivals' ability and incentives to compete.

B. Concert Promotions Services Markets

177. Concert promoters offer a variety of related products and services to two distinct sets of customers: major concert venues and artists. For major concert venues, promoters arrange for, book, and market shows with artists to fill available dates at the venues. These services can take the form of booking one-off performances of an artist or long-term booking agreements where the promoter promises to bring multiple artists to a venue over a period of time. For artists, concert promoters work to plan, finance, and market an artist's show or—as is more often the case—a tour of multiple shows. In this way, although concert promoters are responsible for bringing together an artist and venue to perform a show, the particular form and nature of services they offer venues and artists differ considerably.

i. Concert Booking and Promotion Services to Major Concert Venues

178. The provision of concert booking and promotion services to major concert venues is a relevant antitrust product market. In general, promoters arrange and coordinate artist performances at venues and help to promote those shows to the public once they are booked. Promoters have significant influence over which venues an artist chooses to play. Typically, venues enter into individualized agreements with promoters (either on a show-by-show or long-term basis), which dictate the payments between venues and promoters in exchange for the performance(s). Concert booking and promotion services are essential to major concert venues because they help ensure the venues receive a steady stream of concert content.

179. The venues most directly impacted by Live Nation's scheme are major concert venues. As discussed above, major concert venues have unique characteristics that make it appropriate to include them in this product market. In particular, major concert venues rely on live entertainment for a significant portion of their revenues and thus are unlikely to forego promotion services. Revenue from live entertainment is important to offset substantial fixed costs at these venues, and more events allow venues to allocate those costs across a greater number of shows.

180. There are no reasonable substitutes for the purchase of concert booking and promotion services for major concert venues. Booking and promotional services for non-concert events at major concert venues are not adequate substitutes because the venues' average revenue per show from concerts is often higher than from non-concert events. Neither self-promotion nor self-supply is a significant constraint because most venues will be unable to incentivize a sufficient number of artists to choose to perform at their venue without the support of a promoter. Most venues cannot successfully promote concerts at scale because they lack the necessary expertise and relationships and are unwilling to assume the financial risk of a show selling poorly. Industry participants, including Live Nation and venues, recognize that providing concert promotions is a unique business and separately analyze the business and competitive conditions.

181. The relevant geographic market for the provision of concert booking and promotion services to major concert venues is no broader than the United States, and there may also be smaller, regional relevant geographic markets. When procuring booking and promotion services, major concert venues in the United States require providers that can service their requirements in the United States. Further, many artists who perform at major concert venues do

so as a part of regional or national tours that include venues across the United States. Internal Live Nation documents also support the United States as a relevant geographic market. For example, Live Nation considers the United States to be a distinct reporting segment and separately evaluates the business and competitive conditions in the United States.

182. For these and other reasons, a monopolist in the provision of concert booking and promotion services to major concert venues in the United States would be able to maintain prices above competitive levels and/or maintain quality below the level that would prevail in a competitive market.

183. Live Nation has monopoly power in the provision of concert booking and promotion services to major concert venues in the United States. For example, Live Nation as a promoter accounts for around 60% of the total face value associated with all primary tickets sold at major concert venues and more than 70% of the total face value associated with large amphitheater shows in the United States. Total face value is an economically relevant measure of power in this market. As another point of reference, Live Nation is reported to have promoted 22 of the top 30 Billboard "boxscores" in 2023.

184. Live Nation's monopoly power in concert booking and promotion services for major concert venues in the United States is also demonstrated by its ability to control prices and exclude competition. For example, as described above, Live Nation extracts supracompetitive payments from venues, including large promoter rebates, and otherwise imposes onerous, restrictive contractual terms on venues in exchange for supplying them with content. In addition, Live Nation has the ability to exclude competition in concert promotions through, for example, exclusivity agreements with venues. Some examples of its power and scheme are described

above, including using its power to stop rivals or nascent threats from competition in concert promotions.

185. Live Nation's power over concert booking and promotion services is protected by barriers to entry and expansion. Promotion contracts with artists, the key input in this market, requires capital, expertise, connections, data, and a demonstrated level of success in the industry. There are also indirect network effects that sustain high barriers to entry in concert promotions. Venues naturally prefer to work with a promoter who is successful in promoting many popular artists, and artists naturally prefer to work with a promoter who is successful in promoting many high-demand shows at popular venues. As described above, in addition to Live Nation's scheme, Live Nation's self-described flywheel and scale-related factors enhance substantial barriers for entry and expansion in this market as well.

ii. Promotion Services to Artists

186. The provision of promotion services to artists performing in major concert venues is also a relevant product market. Artists seek to contract with promoters for their help in arranging individual concerts and tours. Typically, artists enter into contracts with a promoter for a single show, multiple shows, including a tour. Promoters work with artists, and their managers and/or agents, to help the artist choose the venue(s) where they will play, work with venues on behalf of the artist to arrange aspects of the show(s), and then ultimately promote each show in local areas where the artist will perform. Promoters take on the financial risk associated with a show or tour, and in exchange they are compensated with a portion of the revenue generated by successful shows. For artists seeking to perform in major concert venues, promoters are an essential component to ensuring the show or tour is successful.

187. Artists who seek to perform all or parts of their tour in large amphitheaters are uniquely impacted by Live Nation's anticompetitive conduct. Because of Live Nation's control

over a vast network of large amphitheaters and its policy to only work with artists that it promotes, artists seeking to perform a tour in large amphitheaters are denied the ability to work with the promoter of their choice if they want to play a Live Nation-owned or controlled venue. These artists are forced either to work with Live Nation or forgo an amphitheater tour altogether.

188. There are no reasonable substitutes for promotion services for artists seeking to perform in major concert venues. Artist performances in major concert venues are complicated events whose success requires significant industry experience and relationships with different vendors. Self-promotion is not a reasonable substitute for artists because they generally lack the expertise, relationships, and financial resources to promote a show or tour on their own at major concert venues.

189. The relevant geographic market for the artist promotions market is no broader than the United States, and there may also be smaller, regional relevant geographic markets as well. When procuring promotion services for performances in major concert venues in the United States, artists require promoters who can service their requirements in the United States. Internal Live Nation documents also support the United States as a relevant geographic market. For example, Live Nation considers the United States to be a distinct reporting segment and evaluates the business and competitive conditions in the United States separately.

190. For these and other reasons, and consistent with industry information, a monopolist in the artist promotions market in the United States would be able to maintain prices above competitive levels and/or maintain quality below the level that would prevail in a competitive market.

191. Live Nation currently has monopoly power in the market for the provision of promotion services to artists performing in major concert venues in the United States. Live

Nation's policy of blocking third-party promoted artists from using its amphitheaters has enabled the company to grow its share in the artists promotions market, above and beyond what it would have been able to achieve through fair competition. Industry participants, including venue owners, recognize Live Nation's dominance in this market. As one prior venue manager explained, "If you don't do a deal with these guys, you're going to lose shows." Live Nation as a promoter accounts for around 60% of the total face value associated with all primary tickets sold at major concert venues and more than 70% of the total face value associated with large amphitheater shows in the United States.

192. Live Nation's power over the artist promotion services market is protected by barriers to entry and expansion.

C. Artist Use of Large Amphitheaters

193. The provision of the use of large amphitheaters and ancillary services to musicians and comedians ("artists") for large amphitheater tours is also a relevant product market. "Large" amphitheaters (also known as "non-boutique amphitheaters") are recognized as a distinct type of venue in Live Nation's ordinary course documents and regular reporting and by industry participants. Large amphitheaters have unique characteristics—including capacity, sight lines, acoustics, seating, and staging—that differentiate them both from smaller amphitheaters and other venues. These unique characteristics make large amphitheaters attractive to both artists and fans in the summer months when most touring takes place, and as a result, there are artists who seek to perform several shows or even entire tours at large amphitheaters in given year. They also are attractive to artists who are not yet able to—or no longer able to—fill a larger venue, like an arena, but have outgrown smaller clubs and theaters. In a similar vein, industry participants, including Live Nation and venues, recognize that large amphitheater concerts constitute a unique business and separately analyze the business and competitive conditions.

Large amphitheaters provide artists the use of their venue plus related services, such as staging and lighting, and in exchange, the artist pays rent and performs a show that enables the venue to collect additional revenue from fans, including from food, beverage and parking. Artists either work directly with their agent, or through their chosen promoter, to communicate with venues about availability and ultimately choose the amphitheaters where they will perform.

194. The artists most impacted by Live Nation's anticompetitive conduct are those interested in performing a tour of large amphitheaters in a particular year. This includes artists seeking to perform exclusively at large amphitheaters as well as artists seeking to construct a tour that includes both a significant number of shows at large amphitheaters as well as shows at other venues.

195. Artists seeking to perform a tour of large amphitheaters will not view a tour that excludes large amphitheaters as a reasonable substitute. As described above, large amphitheaters have unique characteristics that distinguish them from other venues, and artists seeking a tour of large amphitheaters will generally not consider a tour wholly excluding large amphitheaters as a reasonable alternative. Industry participants, including Live Nation, recognize that there are artists with a specific interest in touring large amphitheaters.

196. The relevant geographic market for the use of large amphitheaters market is no broader than the United States, and there may also be smaller, regional relevant geographic markets. Artists seeking to do a large amphitheater tour often do so as part of regional or national tours across the United States. Internal Live Nation documents also support the United States as a relevant geographic market. For example, Live Nation considers the United States to be a distinct reporting segment and evaluates the business and competitive conditions in the United States separately.

197. For these and other reasons, a monopolist who controls the use of large amphitheaters in the United States would be able to maintain prices above competitive levels and/or maintain quality below the level that would prevail in a competitive market.

198. Live Nation has monopoly power in the use of large amphitheaters market. Live Nation owns, operates, or exclusively books concerts in more than 55 large amphitheaters in the United States. Live Nation's controlled venues account for at least 65% of the total number of primary tickets and face value associated with all concert tickets sold at large amphitheaters. These measures are economically relevant measures of power in this market.

199. Live Nation's monopoly power in the use of large amphitheaters market is protected by barriers to entry and expansion. Entering this market requires significant time, capital and expertise to either build a new amphitheater or sign a contract with an existing amphitheater to operate it. Building a new large amphitheater is particularly burdensome and uncertain, as it requires a potential new entrant to identify a specific location for the facility, acquire the land, secure the necessary permitting, and contract with the many vendors necessary to put on successful shows. Large amphitheaters also require access to artists to ensure financial viability. Because Live Nation routes the artists it promotes to its own existing network of amphitheaters, that makes it more difficult for a new amphitheater to attract the talent necessary to be financially viable.

VII. Jurisdiction, Venue, and Commerce

200. The United States brings this action against Live Nation and Ticketmaster pursuant to Section 4 of the Sherman Act, 15 U.S.C. § 4, to prevent and restrain Defendants' violations of Section 1 and Section 2 of the Sherman Act, 15 U.S.C. §§ 1-2.

201. The Attorneys General of the Plaintiff States, as the chief legal officers of their respective states, bring this action under their respective and independent statutory, common law,

and equitable powers, and in their quasi-sovereign capacities, to prevent anticompetitive conduct that harms competition and the economies of the Plaintiff States and the economic welfare of consumers in and from the Plaintiff States. Plaintiff States have quasi-sovereign interests in protecting consumers—from economic harm resulting from illegal anticompetitive conduct and in ensuring their economies are not suppressed by unjustified restraints of trade.

202. The Attorneys General assert these claims based on their independent authority to bring this action pursuant to Section 16 of the Clayton Act, 15 U.S.C. § 26, and common law, to prevent and restrain Live Nation's violations of Section 1 and Section 2 of the Sherman Act, 15 U.S.C. §§ 1-2. State attorneys general are specifically authorized to bring suits to secure injunctive relief for violations of the Sherman Act. 15 U.S.C. §26.

203. This Court has subject matter jurisdiction over this action under Section 4 of the Sherman Act, 15 U.S.C. § 4, Sections 4c and 16 of the Clayton Act, 15 U.S.C. §§ 15c and 26, and 28 U.S.C. §§ 1331, 1337(a), and 1345(d), and has supplemental jurisdiction under 28 U.S.C. § 1367(a).

204. The Court has personal jurisdiction over the Defendants, and venue is proper in this District under Section 12 of the Clayton Act, 15 U.S.C. § 22, and under 28 U.S.C. § 1391, because all Defendants transact business and are found within this District.

205. Defendant Live Nation is a Delaware corporation with its principal place of business at 9348 Civic Center Drive, Beverly Hills, CA 90210, and an office at 430 W. 15th Street, New York, NY 10011. Defendant Ticketmaster is a Virginia limited liability company with its principal place of business at 9348 Civic Center Drive, Beverly Hills, CA 90210. Ticketmaster operates from offices in various locations, including at 430 W. 15th Street, New York, NY 10011.

206. Each Defendant engages in, and its activities substantially affect, interstate trade and commerce. Each Defendant provides a range of products and services that are marketed, distributed, and offered to consumers throughout the United States, in the plaintiff States, across state lines, and internationally. Defendants' actions and course of conduct are ongoing and are likely to continue or recur, including through other practices with the same purpose or effect.

VIII. Violations Alleged

First Claim for Relief: Monopolization of Primary Ticketing Services Markets in Violation of Sherman Act § 2

207. Plaintiffs incorporate the allegations of Paragraphs 1 through 206 above.

208. Live Nation has monopolized several relevant markets related to primary ticketing services in the United States. These include the provision of primary ticketing services to major concert venues, the provision of primary concert ticketing services to major concert venues, and the provision of primary concert ticketing offerings to fans at major concert venues (even if combined with services that offer resale of concert tickets).

209. Each constitutes a relevant antitrust market, and Live Nation has monopoly power in each market.

210. Live Nation has unlawfully maintained its monopoly in each market through a course of exclusionary conduct, including:

- Directly threatening venues that Live Nation will divert live music shows to other venues if they do not sign with Ticketmaster;
- Indirectly threatening venues that Live Nation will divert live music shows to other venues if they do not sign with Ticketmaster by, for example, co-opting business partner Oak View Group into warning venues that they will lose Live Nation content if they contract with a ticketer other than Ticketmaster;

- Retaliating against venues that contract with rival ticketers by:
  - Diverting concerts on Live Nation-promoted tours to other venues;
  - Disabling or delaying the sale of secondary tickets through the rival ticketer's platform;
  - Refusing to publicize shows hosted by a venue that uses a competing ticketer;
  - Diverting content away from venues ticketed by companies other than Ticketmaster, making it risky for any venue to contract with a rival ticketer; and
  - Lodging complaints against rival ticketers when Live Nation promotes a show at a venue where Ticketmaster is not the primary ticketer;
- Foreclosing rival ticketing companies from the market by:
  - Imposing long-term exclusive contracts covering a significant proportion of tickets sold;
  - Engaging in strategic purchases of rival promoters and venues to enhance its market power in content and to convert ticketing to Ticketmaster, further foreclosing the primary ticketing market; and
  - Deterring entry and expansion by rivals into primary ticketing by using its monopoly to expand its control over secondary ticketing, which previously had been an entry point for primary ticketing.

211. Although each of these acts is anticompetitive when considered alongside Live Nation's associated conduct, each act occurs in concert with and against the backdrop of allegations and facts outlined throughout this Complaint. These acts have synergistic anticompetitive effects that have harmed competition and the competitive process.

212. Live Nation's exclusionary conduct has foreclosed a substantial share of each of these markets.

213. Live Nation's anticompetitive acts have had harmful effects on competition and consumers.

214. Live Nation's exclusionary conduct lacks a non-pretextual procompetitive justification that offsets the harm caused by Live Nation's anticompetitive and unlawful conduct.

215. Live Nation's anticompetitive and exclusionary practices violate Section 2 of the Sherman Act, 15 U.S.C. § 2.

Second Claim for Relief: Unlawful Exclusive Dealing in Violation of Sherman Act § 1

216. Plaintiffs incorporate the allegations of Paragraphs 1 through 206 above.

217. The provision of primary ticketing services to major concert venues in the United States is a relevant antitrust market, and the provision of primary concert ticketing services to major concert venues in the United States is a relevant antitrust market.

218. Ticketmaster's long-term exclusive agreements to provide primary ticketing services to major concert venues in the United States unreasonably restrain competition, in violation of Section 1 of the Sherman Act, 15 U.S.C. § 1.

219. These contracts exclude all competitors, are terminable only for cause, and have terms ranging from three to 14 years.

220. Ticketmaster's long-term exclusive primary ticketing contracts restrict the access of Ticketmaster's competitors to the only significant channel of distribution for primary ticketing services to major concert venues.

221. Through its long-term exclusive primary ticketing contracts, Ticketmaster has foreclosed a substantial share of the market for the provision of primary ticketing services to major concert venues in the United States.

222. Live Nation's anticompetitive acts have had harmful effects on fans of major concerts, the venues that host them, and competition for primary ticketing.

223. Live Nation's exclusionary conduct lacks a non-pretextual procompetitive justification that offsets the harm caused by Live Nation's anticompetitive and unlawful conduct.

Third Claim for Relief: Unlawful Tying Arrangement Concerning the Use of Large Amphitheaters and Artist Promotions Markets in Violation of Sherman Act § 1

224. Plaintiffs incorporate the allegations of Paragraphs 1 through 206 above.

225. The provision of the use of large amphitheaters and ancillary services to artists for large amphitheater tours in the United States is a relevant antitrust market, and Live Nation has monopoly power in that market.

226. The provision of promotion services to artists performing in major concert venues in the United States is a relevant market, and Live Nation has market power in that market.

227. The provision of the use of large amphitheaters to artists and the provision of promotion services to artists are separate services sold to artists. The services are provided in different markets, with distinct demand for each, and they are treated by industry participants as separate products. There are some industry participants, such as third-party operated amphitheaters, that only offer access to amphitheaters, and there are promoters who only offer artists promotion services.

228. Live Nation has unlawfully required artists seeking to use its large amphitheaters for shows as part of a tour to also purchase promotion services from Live Nation.

229. The purpose and effect of this tying policy is to prevent artists from choosing a promoter on the merits and instead force artists who wish to play in Live Nation amphitheaters to contract with the company for promotions services.

230. This anticompetitive conduct has significantly foreclosed competition in promotion services to artists. Artists who would otherwise choose rival promoters on the merits of those promoters must refrain from doing so to maintain use of Live Nation's amphitheaters on their tours.

231. This conduct lacks a non-pretextual procompetitive justification that offsets the harm caused by Live Nation's anticompetitive and unlawful conduct.

232. Live Nation's anticompetitive and exclusionary practices violate Section 1 of the Sherman Act, 15 U.S.C. § 1.

Fourth Claim for Relief: Monopolization of the Market for the Use of Large Amphitheaters in Violation of Sherman Act § 2

233. Plaintiffs incorporate the allegations of Paragraphs 1 through 206 above.

234. The provision of the use of large amphitheaters and ancillary services to artists for large amphitheater tours in the United States is a relevant antitrust market, and Live Nation has monopoly power in that market.

235. Live Nation has unlawfully maintained its monopoly in this market through a course of anticompetitive exclusionary conduct, including:

- Entering into exclusive booking arrangements with venues, enabling Live Nation to extend its control of this market beyond the significant share it controls through its owned, operated, and leased amphitheaters;
- Acquiring control over several amphitheaters, enabling Live Nation to extend its control of this market through its portfolio of owned and operated amphitheaters;

- Acquiring several competing promotion companies that either owned amphitheaters or had exclusive booking contracts with amphitheaters; and
- Acquiring numerous large festivals, further reducing the ability of artists on large amphitheater tours to seek alternatives to Live Nation. These exclusionary acts have harmed artists, rival promoters, and fans.

236. Although each of these acts is anticompetitive when considered alongside Live Nation's associated conduct, each act occurs in concert with and against the backdrop of allegations and facts outlined throughout this Complaint. These acts have synergistic anticompetitive effects that have harmed competition and the competitive process.

237. Live Nation's exclusionary conduct has foreclosed a substantial share of the market.

238. Live Nation's anticompetitive acts have had harmful effects on competition and consumers.

239. Live Nation's conduct lacks any procompetitive benefits or justification that offsets the significant anticompetitive harm that flows from the exclusionary conduct.

240. Live Nation's anticompetitive and exclusionary practices violate Section 2 of the Sherman Act, 15 U.S.C. § 2.

Fifth Claim for Relief: Monopolization of the Markets for Concert Promotion Services in Violation of Sherman Act § 2

241. Plaintiffs incorporate the allegations of Paragraphs 1 through 206 above.

242. The provision of concert booking and promotion services to major concert venues and the provision of promotion services to artists performing in major concert venues in the United States are related, relevant antitrust markets, and Live Nation has monopoly power in each market.

243. Live Nation has unlawfully maintained its monopoly in each market through a course of exclusionary conduct described herein, including:

- Engaging in strategic purchases of rival promoters (actual or potential) and venues to enhance and entrench its monopoly power;
- Tying artists' use of Live Nation owned, controlled and exclusively-booked large amphitheaters to their purchase of promotional services from Live Nation;
- Deterring entry and expansion by rivals by threatening potential rivals and their investors; and
- Imposing restrictive terms in contracts with major concert venues that undermine and foreclose competition from actual and potential rival promoters.

244. Although each of these acts is anticompetitive when considered alongside Live Nation's associated conduct, each act occurs in concert with and against the backdrop of allegations and facts outlined throughout this Complaint. These acts have synergistic anticompetitive effects that have harmed competition and the competitive process.

245. Live Nation's exclusionary conduct has foreclosed a substantial share of each market.

246. Live Nation's anticompetitive acts have had harmful effects on competition and consumers.

247. Live Nation's exclusionary conduct lacks a non-pretextual procompetitive justification that offsets the harm caused by Live Nation's anticompetitive and unlawful conduct.

248. Live Nation's anticompetitive and exclusionary practices violate Section 2 of the Sherman Act, 15 U.S.C. § 2.

Sixth Claim for Relief: Violation of Arkansas Law

249. Plaintiff State of Arkansas incorporates the allegations of Paragraphs 1 through 248 above.

250. Plaintiff State of Arkansas brings this action in its sovereign capacity pursuant to Ark. Code Ann. § 4-75-212(a) and its *parens patriae* capacity pursuant to Ark. Code Ann. § 4-75-212(b) and Ark. Code Ann. § 4-75-315(b).

251. Defendants' acts as alleged herein violate Arkansas's prohibition on monopolies under Ark. Code Ann. §§ 4-75-301 *et seq.*, and Unfair Practices Act, Ark. Code Ann. §§ 4-75-201 *et seq*.

252. Plaintiff State of Arkansas is entitled to and seeks all remedies available at law or in equity, including, without limitation, the following:

a. A declaratory judgment, pursuant to Ark. Code Ann. § 4-75-212(a)(1) and Ark. Code Ann. § 4-75-315(a)(1), that Defendants' acts and practices as described in this Complaint violate Arkansas's Unfair Practices Act and its prohibition on monopolies;

b. Permanent injunctions against Defendants, pursuant to Ark. Code Ann. § 4-75-212(a)(2) and Ark. Code Ann. § 4-75-315(a)(2), enjoining Defendants from engaging in any act that violates Arkansas's Unfair Practices Act and its prohibition on monopolies, including but not limited to the unfair methods of competition alleged herein;

c. Damages for injuries sustained or restitution for loss as a result of violations of Arkansas antitrust statutes pursuant to Ark. Code Ann. § 4-75-212(b)(1)(A) and Ark. Code Ann. § 4-75-315(b)(1);

d. Civil penalties pursuant to Ark. Code Ann. § 4-75-212(a)(4) and Ark. Code Ann. § 4-75-315(a)(4);

e. Costs and attorneys' fees pursuant to Ark. Code Ann. § 4-75-212(a)(4) and Ark. Code Ann. § 4-75-315(a)(4); and

f. All other just and equitable relief that this Court may deem appropriate.

Seventh Claim for Relief: Violation of California Law

253. The State of California incorporates the allegations of Paragraphs 1 through 248 above.

254. Defendants' acts and practices detailed above also violate California's Unfair Competition Law ("UCL"), Cal. Bus. & Prof. Code § 17200, et seq., which prohibits any unlawful, unfair, or fraudulent business act or practice.

255. In bringing its state claims, Plaintiff State of California is entitled to, without limitation, the following relief:

a. Injunctive, restitution and other equitable relief under the UCL (Cal. Bus. & Prof. Code § 17203); and

b. Civil penalties assessed at up to $2,500 for each violation of the UCL (Cal. Bus. & Prof. Code § 17206).

Eighth Claim for Relief: Violation of District of Columbia Law

256. The District of Columbia incorporates the allegations of Paragraphs 1 through 248 above.

257. The Attorney General for the District of Columbia brings this action pursuant to D.C. Code § 28-4501, *et seq.* and 15 U.S.C. § 12, *et seq.*

258. Defendants' conduct alleged herein constitutes unlawful monopolization within the District of Columbia under D.C. Code § 28-4503.

259. Defendants' conduct alleged herein constitutes unlawful combination in restraint of trade within the District of Columbia under D.C. Code § 28-4502.

260. The District of Columbia seeks all remedies available under federal law and the District of Columbia Antitrust Act, D.C. Code § 28-4507.

261. The District of Columbia is also entitled to recover its costs and attorney's fees under D.C. Code § 28-4507(a)(2)(B).

Ninth Claim for Relief: Violation of Florida Law

262. Plaintiff State of Florida incorporates the allegations of Paragraphs 1 through 248 above.

Florida Antitrust Act

263. This is an action against Defendants for their violation of the Florida Antitrust Act, Sections 542.18 and 542.19, Florida Statutes.

264. Defendants engaged in a wide-ranging anticompetitive and exclusionary course of conduct within Florida.

265. The acts and practices within Defendants' wide-ranging anticompetitive and exclusionary course of conduct alleged herein constitute violations of the Florida Antitrust Act;

266. The State of Florida seeks all legal and equitable remedies available for violations of the Florida Antitrust Act, Sections 542.18 and 542.19, Florida Statutes.

267. Defendants' anticompetitive acts alleged herein, or the effects thereof, are continuing and will continue and are likely to recur unless permanently restrained and enjoined.

Florida Deceptive and Unfair Trade Practices Act

268. This is an action against Defendants for their violation of the Florida Deceptive and Unfair Trade Practices Act, Section 501.204, Florida Statutes.

269. Defendants engaged in a wide-ranging anticompetitive and exclusionary course of conduct within Florida.

270. Defendants' unfair methods of competition alleged herein involve trade or commerce within the meaning of the Florida Deceptive and Unfair Trade Practices Act.

271. The acts and practices within Defendants' wide-ranging anticompetitive and exclusionary course of conduct alleged herein constitute unfair methods of competition in violation of the Florida Deceptive and Unfair Trade Practices Act, Section 501.204, Florida Statutes.

272. The State of Florida seeks all legal and equitable remedies available for violations of the Florida Deceptive and Unfair Trade Practices Act, Section 501.204, Florida Statutes.

273. Defendants' unfair methods of competition alleged herein, or the effects thereof, are continuing and will continue and are likely to recur unless permanently restrained and enjoined.

Florida's Prayer for Relief

274. Award to the State of Florida all legal and equitable remedies available for violations of the Florida Deceptive and Unfair Trade Practices Act, Section 501.204, Florida Statutes;

275. Award to the State of Florida all legal and equitable remedies available for violations of the Florida Antitrust Act, Sections 542.18 and 542.19, Florida Statutes;

276. Adjudge and decree that Defendants violated Sections 542.18, and 542.19, Florida Statutes;

277. Adjudge and decree that Defendants violated Section 501.204, Florida Statutes;

278. Enjoin and restrain, pursuant to Florida law, Defendants, their affiliates, assignees, subsidiaries, successors, and transferees, and their officers, directors, partners, agents and employees, and all other persons acting or claiming to act on their behalf or in concert with

them, from continuing to engage in any anticompetitive conduct, and from adopting in the future any practice, plan, program, or device having a similar purpose or effect to the anticompetitive actions set forth above.

Tenth Claim for Relief: Violation of Illinois Law

279. Plaintiff State of Illinois incorporates the allegations of Paragraphs 1 through 248 above.

280. Defendants' acts alleged herein violate Section 3 of the Illinois Antitrust Act, 740 ILCS 10/3(1)-(4).

281. These violations substantially affect the people who reside in Illinois and companies that conduct business in Illinois and have impacts within the State of Illinois.

282. Plaintiff State of Illinois, through its Attorney General, requests that the Court remedy these illegal acts, seeks all available relief as well as civil penalties under 740 ILCS 10/7.

283. Plaintiff State of Illinois, through its Attorney General, also seeks to recover its costs and attorneys' fees under 740 ILCS 10/7(2).

Eleventh Claim for Relief: Violation of Maryland Law

284. Plaintiff State of Maryland incorporates the allegations of Paragraphs 1 through 248 above.

285. The Defendants' acts violate the Maryland Antitrust Act, MD Commercial Law Code Ann. § 11-201 *et seq.* These acts have substantially lessened competition and have anticompetitive effects within the State of Maryland.

286. Plaintiff State of Maryland is entitled to all remedies available at law or in equity (including, but not limited to, damages, injunctive relief, restitution, and divestiture) under Maryland Commercial Law Code Ann. § 11-209. In addition, the Court may assess civil penalties, costs, and reasonable attorneys' fees.

Twelfth Claim for Relief: Violation of Michigan Law

287. Plaintiff State of Michigan incorporates the allegations of Paragraphs 1 through 248 above.

288. The acts alleged in the Complaint violate the Michigan Antitrust Reform Act, MCL 445.771, *et seq.*

289. The Attorney General brings this suit in the name of the State of Michigan and on behalf of the people of the State of Michigan in her *parens patriae* capacity.

290. The acts alleged in the Complaint constitute the establishment, maintenance, or use of a monopoly, or any attempt to establish a monopoly, of trade or commerce in a relevant market by any person, for the purpose of excluding or limiting competition or controlling, fixing, or maintaining prices, pursuant to MCL 445.773.

291. Michigan seeks all legal and equitable relief authorized by MCL 445.777 and MCL 445.778.

Thirteenth Claim for Relief: Violation of Minnesota Law

292. Plaintiff State of Minnesota incorporates the allegations of Paragraphs 1 through 248 above.

293. Defendants' acts as alleged herein violate the Minnesota Antitrust Law of 1971, Minnesota Statutes sections 325D.49 to 325D.66. These violations substantially affect the people of Minnesota and have impacts within the State of Minnesota, including anticompetitive harms, such as increased prices, increased costs, and reduced quality.

294. Plaintiff State of Minnesota seeks relief, including but not limited to the following:

a. Enjoining Defendants and their employees, officers, directors, agents, successors, assignees, affiliates, merged or acquired predecessors, parents, or controlling

entities, subsidiaries, and all other persons acting in concert or participation with them from engaging in conduct in violation of Minnesota Statutes sections 325D.49-66;

b. Awarding judgment against Defendants for civil penalties pursuant to Minnesota Statutes sections 8.31, subd. 3, and 325D.56; and

c. Costs and reasonable attorneys' fees under Minnesota Statutes sections 325D.57 and 8.31, subd. 3a.

Fourteenth Claim for Relief: Violation of Nevada Law

Violations of Nevada Unfair Trade Practices Act

295. The State of Nevada incorporates the allegations of Paragraphs 1 through 248 above.

296. The Defendants' conduct in the course of selling tickets, booking and promoting live entertainment shows, and operating concert venues in the State of Nevada has been unlawful, exclusionary and anticompetitive, as described in detail above, and has harmed fans, venues, promoters and artists throughout the State of Nevada.

297. Live Nation's unlawful maintenance of its monopoly power in each of the various antitrust markets identified in Section VI through anticompetitive and exclusionary conduct, also constitute violations of Nevada law pursuant to the Nevada Unfair Trade Practices Act, Nev. Rev. Stat. § 598A.010, *et seq*. See specifically Nev. Rev. Stat. § 598A.060 – Prohibited Acts.

298. The State of Nevada seeks all remedies available under federal law and the Nevada Unfair Trade Practices Act including, without limitation, the following:

a. Civil penalties pursuant to Nev. Rev. Stat. § 598A.170, which provides for "an amount not to exceed 5 percent of the gross income realized by the sale of commodities or services sold by such persons in this state in each year in which the prohibited activities occurred";

b. Damages for natural persons residing in Nevada that were damaged directly or indirectly by the defendants' conduct, pursuant to Nev. Rev. Stat. § 598A.160;

c. Injunctive relief pursuant to Nev. Rev. Stat. § 598A.070(c)(1);

d. Disgorgement, restitution and other equitable relief as provided by Nev. Rev. Stat. § 598A.070(c)(4);

e. Costs and attorney's fees pursuant to Nev. Rev. Stat. § 598A.200; and

f. Any other remedies the court may deem appropriate under the facts and circumstances of the case.

Fifteenth Claim for Relief: Violation of New Hampshire Law

299. Plaintiff State of New Hampshire incorporates the allegations of Paragraphs 1 through 248 above.

300. The Defendants' acts violate the New Hampshire Combinations and Monopolies Act, NH RSA 356 *et seq*. These acts have substantially lessened competition and have anticompetitive effects within the State of New Hampshire.

301. Plaintiff State of New Hampshire is entitled to all remedies available at law or in equity (including damages, injunctive relief, restitution, and divestiture) under NH RSA 356 *et seq*. In addition, the Court may assess civil penalties, costs, and reasonable attorneys' fees.

Sixteenth Claim for Relief: Violation of New Jersey Law

302. Plaintiff State of New Jersey repeats and realleges and incorporates by reference Paragraphs 1 through 248 of this Complaint as if fully set forth herein.

303. The New Jersey Antitrust Act, N.J.S.A. 56:9-3, states: "It shall be unlawful for any person to monopolize, or attempt to monopolize, or to combine or conspire with any person or persons, to monopolize trade or commerce in any relevant market within this State."

304. N.J.S.A. 56:9-4(a) of the New Jersey Antitrust Act, states: "Every contract, combination in the form of trust or otherwise, or conspiracy in restraint of trade or commerce, in this State, shall be unlawful."

305. In the operation of its businesses, Defendant engaged in numerous commercial practices that violate the New Jersey Antitrust Act, N.J.S.A. 56:9-1 to -19, including monopolizing trade or commerce in relevant markets within the State of New Jersey, in violation of N.J.S.A. 56:9-3; and have engaged in conduct constituting restraint of trade or commerce in relevant markets within the State of New Jersey, in violation of N.J.S.A. 56:9-4(a).

306. Each violation of the New Jersey Antitrust Act by Defendant constitutes a separate unlawful practice and violation, under N.J.S.A. 56:9-16.

307. To restore competition to the affected markets, New Jersey seeks all remedies available under the New Jersey Antitrust Act, N.J.S.A. 56:9-1 to -19, and/or Section 16 of the Clayton Act including, without limitation, the following:

308. Divestiture of Ticketmaster and/or venues owned or operated by Live Nation Entertainment, pursuant to N.J.S.A. 56:9-7 and/or Section 16 of the Clayton Act;

309. Injunctive and other equitable relief prohibiting Defendant's wrongful conduct, pursuant to N.J.S.A. 56:9-10(a);

310. Equitable monetary relief to remedy Defendant's unlawful conduct, pursuant to N.J.S.A. 56:9-10(b);

311. Civil penalties of not more than the greater of $100,000 or $500 per day for each and every day of said violation against Defendant, pursuant to N.J.S.A. 56:9-10(c);

312. Costs and attorney's fees, pursuant to N.J.S.A. 56:9-12; and

313. Other remedies as the Court may deem appropriate and the interests of justice may require.

Seventeenth Claim for Relief: Violation of New York Law

314. Plaintiff State of New York incorporates the allegations of Paragraphs 1 through 248 above.

315. Defendants' acts as alleged in this Complaint violate New York's Donnelly Act, New York General Business Law §§ 340 *et seq.*, by contracts, agreements, arrangements or combinations that result in the establishment or maintenance of a monopoly and/or by restraining competition.

316. Defendants' acts alleged in this Complaint also violate Section 63(12) of New York's Executive Law, in that Defendants have engaged in repeated and/or persistent illegal acts, including violations of Sections 1 and 2 of the Sherman Act, as well as violations of the Donnelly Act.

317. To restore competition to the affected markets, New York seeks equitable relief, including an injunction prohibiting Defendants' wrongful conduct, as well divestitures of Ticketmaster and venues owned or operated by Live Nation Entertainment, pursuant to Section 16 of the Clayton Act, New York General Business Law § 342 and/or Section 63(12) of the New York Executive Law.

318. New York also seeks equitable monetary relief to deter and remedy Defendants' unlawful conduct pursuant to Section 63(12) of the New York Executive Law.

319. New York seeks also civil penalties of $1,000,000 per violation against each defendant, pursuant to New York Business Law § 342-a, as well as fees and costs pursuant to federal and state law.

Eighteenth Claim for Relief: Violation of Ohio Law

Violations of Ohio's Valentine Act Against All Defendants

320. Plaintiff State of Ohio incorporates the allegations of Paragraphs 1 through 248 above.

321. Defendants Live Nation Entertainment, Inc. and Ticketmaster L.L.C. contract with and provide live entertainment services and commodities to Ohio businesses and consumers.

322. Plaintiff brings this action pursuant to Ohio Rev. Code § 109.81 and Ohio Rev. Code Chapter 1331.

323. Plaintiff, having reasonable cause to believe that violations of Ohio's antitrust laws have occurred, brings this action in his sovereign capacity pursuant to Ohio Rev. Code §109.81 to enforce Ohio law.

324. Defendants, by and through their officers, directors, employees, agents, or other representatives, have engaged in a combination of capital, skill, or acts to create or carry out restrictions in trade or commerce in violation of Ohio's Valentine Act, codified in Ohio Rev. Code Chapter 1331.

325. Defendants' collective and individual activities detailed above, including the vertical arrangements, constitute Trusts under Ohio Rev. Code § 1331.01(C)(1)(a), (b), and (e) and are thus illegal under Ohio's Valentine Act.

326. The purposes or effects of Defendants' Trusts are to decrease competition, raise prices, and/or stifle innovation in all of the alleged relevant markets. Ohio Rev. Code § 1331.09.

327. This complaint constitutes due notice of these violations under Ohio Rev. Code § 1331.03.

328. Plaintiff seeks the following remedies pursuant to Ohio Rev. Code § 109.81 and Chapter 1331:

a. Civil forfeiture pursuant to Ohio Rev. Code § 1331.03;

b. Relief permanently enjoining Defendants Live Nation Entertainment, Inc. and Ticketmaster L.L.C. from engaging in any acts that violate Ohio's Valentine Act;

c. Costs, attorneys' fees, and interest; and

d. Other remedies the court may deem appropriate according to the facts and circumstances of the case.

Nineteenth Claim for Relief: Violation of Oregon Law

329. Plaintiff State of Oregon incorporates the allegations of Paragraphs 1 through 248 above.

330. Defendants' acts as alleged herein violate the Oregon Antitrust Act, Oregon Revised Statutes 606.705 *et seq*. These violations substantially affect the people of Oregon and have impacts within the State of Oregon.

331. Plaintiff State of Oregon seeks relief, including but not limited to the following:

a. Enjoining Defendants and their employees, officers, directors, agents, successors, assignees, affiliates, merged or acquired predecessors, parents, or controlling entities, subsidiaries, and all other persons acting in concert or participation with them from engaging in conduct in violation of Oregon Revised Statutes 646.705 *et seq*.;

b. Awarding judgment against Defendants for civil penalties for each of the first through fifth claims above pursuant to Oregon Revised Statues 646.760;

c. Costs and reasonable attorneys' fees under Oregon Revised Statutes 646.760; and

d. All legal and equitable remedies available under federal law and Oregon's

Antitrust Act, ORS 646.705 *et seq.*, and any additional relief as the court finds just and proper.

Twentieth Claim for Relief: Violation of Rhode Island Law

332. The state of Rhode Island incorporates the allegations of Paragraphs 1 through 248 above.

333. The acts alleged in causes of action 1–5 also constitute antitrust violations pursuant to the Rhode Island Antitrust Act, R.I. Gen. L. §§ 6-36-1, *et seq*.

334. Rhode Island seeks all remedies available under federal law or the Rhode Island Antitrust Act including, without limitation, the following:

a. Civil penalties pursuant to R.I. Gen. L. 6-36-10(c), which provides that "any person who violates this chapter may be liable for a civil penalty of not more than fifty thousand dollars ($50,000) for each violation;"

b. Injunctive and other equitable relief pursuant to R.I. Gen. L. § 6-36;

c. Costs and attorney's fees pursuant to § 6-36-11(a); and

d. Other remedies as the court may deem appropriate under the facts and circumstances of the case.

Twenty-first Claim for Relief: Violation of South Carolina Law

335. Plaintiff State of South Carolina incorporates the allegations of Paragraphs 1 through 248 above. Each allegation is brought separately against each Defendant.

336. The Attorney General of South Carolina is bringing this action in the name of the State pursuant to S.C. Code § 39-5-50.

337. At all times described herein, the Defendants were engaged in conduct which constitutes "trade" and "commerce" as defined in S.C. Code § 39-5-10(b).

338. Defendants' acts or practices regarding South Carolina consumers as alleged herein are capable of repetition and affect the public interest.

339. Defendants' acts or practices alleged herein constitute "unfair methods of competition" under S.C. Code § 39-5-20. Every unfair act or practice by each Defendant constitutes a separate and distinct violation of S.C. Code § 39-5-20.

340. Defendants' acts or practices alleged herein are offensive to established public policy, immoral, unethical, or oppressive.

341. At all times Defendants knew or should have known their conduct violated S.C. Code § 39-5-20 and, therefore, the conduct is willful for purposes of S.C. Code § 39-5-110, justifying civil penalties.

342. Plaintiff State of South Carolina seeks all remedies available under the South Carolina Unfair Trade Practices Act (SCUTPA) including, without limitation, the following:

a. Permanently enjoin Defendants pursuant to S.C. Code § 39-5-50(a) from engaging in any acts that violate SCUTPA, including, but not limited to, the unfair methods of competition and unfair or deceptive acts or practices alleged herein;

b. Civil penalties in the amount of $5,000, pursuant to S.C. Code § 39-5-110(a), for every willful violation of SCUTPA;

c. Ascertainable loss damages as determined by the Court under S.C. Code § 39-5-50(b);

d. Costs and attorneys' fees pursuant to S.C. Code § 39-5-50(a) and S.C. Code § 1-7-85; and

e. All other legal and equitable relief as the court may deem appropriate under the facts and circumstances of the case.

Twenty-second Claim for Relief: Violation of Tennessee Law

343. Plaintiff State of Tennessee incorporates the allegations of Paragraphs 1 through 248 above.

344. Defendants engaged in the conduct described above while selling tickets, promoting shows, and operating venues in Tennessee. This anticompetitive conduct in Tennessee harmed thousands of fans, venues, promoters, and artists across the state.

345. As a result of this conduct, and the concomitant reduction in competition in the relevant markets, Tennesseans and Tennessee businesses have suffered anticompetitive harms, including increased prices, increased costs, and reduced quality.

346. This conduct has affected Tennessee commerce to a substantial degree.

347. Accordingly, Defendants' actions violate the Tennessee Trade Practices Act, Tenn. Code Ann. §§ 47-25-101 *et seq.*, as amended.

348. To remedy this anticompetitive conduct, the Tennessee Attorney General and Reporter seeks all legal and equitable relief to which it is entitled at law and equity.

Twenty-third Claim for Relief: Violation of Texas Law

349. Plaintiff State of Texas repeats and realleges the allegations of Paragraphs 1 through 248 above. Each allegation is brought separately against each Defendant.

350. The aforementioned practices by Defendants Live Nation Entertainment, Inc. and Ticketmaster L.L.C. were and are in violation of Texas Business and Commerce Code § 15.01 et seq.

351. Plaintiff State of Texas has reason to believe that Defendants have engaged in, and will continue to engage in, the anticompetitive and exclusionary course of conduct set forth herein, has caused and will cause adverse effects to consumers and harm to economic competition in trade and commerce in this State, and will cause damage to the State of Texas and

to persons in the State of Texas. Therefore, the Antitrust Division of the Office of the Attorney General of the State of Texas believes and is of the opinion that this matter is in the public interest.

352. The State of Texas requests a judgment that the Defendants engaged in conduct in violation of Texas Business and Commerce Code § 15.01 et seq.

353. The State of Texas requests a civil fine up to the maximum amount allowed pursuant to Texas Business and Commerce Code § 15.20(a).

354. The State of Texas requests the issuance of a permanent injunction to enjoin any activity or contemplated activity that violates or threatens to violate any of the prohibitions in § 15.05 pursuant to the Texas Business and Commerce Code § 15.20(b).

355. The State of Texas requests its costs of this suit, including attorneys' fees, pursuant to Section 15.20(b) of the Texas Business and Commerce Code and Section 402.006 of the Texas Government Code.

Twenty-fourth Claim for Relief: Violation of Virginia Law

356. Plaintiff Commonwealth of Virginia incorporates the allegations of Paragraphs 1 through 248 above.

357. In addition to violating federal law, Defendants' acts described above violate the Virginia Antitrust Act, Va. Code § 59.1-9.1 *et seq.*

358. Defendants engaged in the conduct described above while selling tickets, promoting concerts, and operating venues in Virginia. This anticompetitive conduct harmed fans, venues, promoters, and artists across the Commonwealth and affected commerce therein.

359. Plaintiff Commonwealth of Virginia is entitled to legal and equitable remedies for the claims alleged above, including but not limited to civil penalties under Va. Code § 59.1-9.11

and other remedies (including recovery of costs and attorney's fees) under Va. Code § 59.1-9.15, in addition to the remedies available to it under federal law as alleged above.

Twenty-fifth Claim for Relief: Violation of Washington Law

360. The state of Washington incorporates the allegations of Paragraphs 1 through 248 above.

361. The acts alleged in the claims for relief also constitute antitrust violations pursuant to the Washington Consumer Protection Act under Wash. Rev. Code § 19.86.030 (2024) and § 19.86.040 (2024).

362. Washington seeks all injunctive remedies available under federal law.

363. Washington seeks the following remedies available under the Washington Consumer Protection Act including, without limitation, the following:

a. That the Court adjudge and decree the conduct alleged in the complaint to be unlawful and in violation of the Washington Consumer Protection Act, Wash. Rev. Code § 19.86.030 (2024) and § 19.86.040 (2024).

b. Injunctive and other equitable relief pursuant to Wash. Rev. Code § 19.86.080 (2024);

c. Disgorgement and restitution pursuant to Wash. Rev. Code § 19.86.080 (2024);

d. Civil penalties pursuant to Wash. Rev. Code § 19.86.140 (2024);

e. Costs and attorney's fees pursuant to Wash. Rev. Code § 19.86.080 (2024); and

f. Other remedies, including pre-judgment interest, as the court may deem appropriate under the facts and circumstances of the case.

Twenty-sixth Claim for Relief: Violation of West Virginia Law

364. Plaintiff State of West Virginia incorporates the allegations of Paragraphs 1 through 248 above.

365. Defendants' acts described above violate the West Virginia Antitrust Act, *see* W. Va. Code § 47– 18–1 *et seq*. These violations substantially affected the State of West Virginia and had impacts within the State of West Virginia.

366. Plaintiff State of West Virginia is entitled to all remedies available at law or in equity (including damages, injunctive relief, disgorgement, restitution, and reimbursement), as well as civil penalties under West Virginia Code § 47–18–1 *et seq*.

367. Plaintiff State of West Virginia also is entitled to recover its costs and attorneys' fees under West Virginia Code §§ 47–18–8, -9, and -17.

Twenty-seventh Claim for Relief: Violation of Wisconsin Law

368. Plaintiff State of Wisconsin repeats and re-alleges and incorporates by reference the allegations of Paragraphs 1 through 248 above as if fully set forth herein.

369. The aforementioned practices by Defendants violate Wisconsin's Antitrust Act, Wis. Stat. Ch. § 133.03 *et seq.* These violations substantially affect the people of Wisconsin and have impacts within the State of Wisconsin.

370. Plaintiff State of Wisconsin, through its Attorney General and under its antitrust enforcement authority in Wis. Stat. Ch. 133, is entitled to all remedies available under Wis. Stat. §§ 133.03, 133.16, 133.17, and 133.18.

IX. Request for Relief

371. To remedy these illegal acts, Plaintiffs request that the Court:

a. Adjudge and decree that Live Nation has acted unlawfully to maintain its monopoly in the markets for the provision of primary ticketing services to major concert

venues, the provision of primary concert ticketing services to major concert venues, and the provision of primary concert ticketing offerings to fans at major concert venues (even if combined with services that offer resale of concert tickets), in violation of Section 2 of the Sherman Act, 15 U.S.C. § 2 and the state laws cited in paragraphs 249 through 370 above;

b. Adjudge and decree that Live Nation has acted unlawfully by entering into long-term exclusive primary ticketing contracts with major concert venues that unreasonably restrain trade in the United States in violation of Section 1 of the Sherman Act, 15 U.S.C. § 1 and the state laws cited in paragraphs 249 through 370 above;

c. Adjudge and decree that Live Nation has acted unlawfully by tying artists' use of Live Nation owned, controlled and exclusively-booked large amphitheaters to their purchase of promotional services from Live Nation in violation of Section 1 of the Sherman Act, 15 U.S.C. § 1 and the state laws cited in paragraphs 249 through 370 above;

d. Adjudge and decree that Live Nation has acted unlawfully to maintain its monopoly in the market for the provision of the use of large amphitheaters and ancillary services to artists on large amphitheater tours, in violation of Section 2 of the Sherman Act, 15 U.S.C. § 2 and the state laws cited in paragraphs 249 through 370 above;

e. Adjudge and decree that Live Nation has acted unlawfully to maintain its monopoly in the markets for the provision of concert booking and promotion services to major concert venues and the provision of promotion services to artists performing in major concert venues, in violation of Section 2 of the Sherman Act, 15 U.S.C. § 2 and the state laws cited in paragraphs 249 through 370 above;

f. Order the divestiture of, at minimum, Ticketmaster, along with any additional relief as needed to cure any anticompetitive harm;

g. Order the termination of Live Nation's ticketing agreement with Oak View Group;

h. Enjoin Live Nation from continuing to engage in anticompetitive practices described herein and from engaging in other practices with the same purpose and effect as the challenged practices;

i. Enter any other preliminary or permanent relief necessary and appropriate to restore competitive conditions in the markets affected by Live Nation's unlawful conduct;

j. Award any additional relief in law or equity the Court finds just and proper; and

k. Award each Plaintiff, as applicable, an amount equal to its costs, including reasonable attorneys' fees, incurred in bringing this action.

X. Demand for a Jury Trial

372. Pursuant to Federal Rule of Civil Procedure 38(b), Plaintiffs demand a trial by jury of all issues properly triable to a jury in this case.

Dated this 23d day of May, 2024.

Respectfully submitted,

FOR PLAINTIFF UNITED STATES OF AMERICA:

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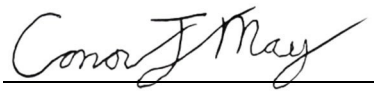

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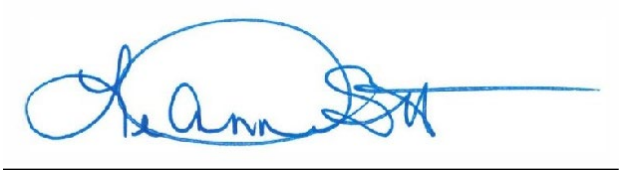

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From:	Hearings Office Clerks
To:	Bradley, Shelia
Subject:	FW: CASE FILE: LU 23-111784 CU AD
Date:	Wednesday, July 17, 2024 3:09:59 PM

From: BikeLoud PDX <bikeloudpdx@gmail.com>
Sent: Wednesday, July 17, 2024 2:59 PM
To: Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>
Cc: chair@bikeloudpdx.org
Subject: CASE FILE: LU 23-111784 CU AD

July 15, 2024

To: HearingsOfficeClerks@portlandoregon.gov Cc: Andrew.Gulizia@portlandoregon.gov

CASE FILE: LU 23-111784 CU AD (Pre-Application Conference # 22-128857 PC)

BikeLoud remains concerned that approving this application will endanger vulnerable road users and that the current bicycling parking proposal is not adequate. We have reviewed PBOT's response to our questions, provided below, and are not satisfied that this project will improve an already dangerous streetscape or address bicycle parking concerns.

We would like to see a parking and loading plan for trailers accessing the venue. SE Main and Salmon are important connections to the Esplande and large trailers will limit visibility for people on foot and by bike.

Bicycle parking will be very important for encouraging people to not drive to this industrial corridor. We would like to see a more substantial plan for how the venue aims to increase bike trips. We do not feel that hoping that the city will install unprotected bike racks in time is adequate. We request that the applicant provide a full TDM plan that outlines how they are going to increase bike safety in the area and encourage bike ridership to events.

Thank you,

-Kiel Johnson
Vice-Chair BIkeLoud PDX

BIKELOUD — Speak up for bicycling!

On Mon, Jul 15, 2024 at 7:56 PM Pina, Michael <Michael.Pina@portlandoregon.gov> wrote:

> Hello Aaron, thank you for your message. Please see my response below:
>
> - The Standard sidewalk width for SE Salmon and SE Main is 12-ft wide, and 15-ft wide on SE Water Ave. The applicant will be required to dedicate and reconstruct all three frontages at time of building permit to accommodate the standard. PBOT cannot require additional dedication along these frontages.
>
> - By paying into the bike fund, PBOT will install a bank of bike corals along the site's SE Salmon frontage. Standard bike coral racks are already installed diagonally to reduce handlebar conflicts (see attached). Standard street lighting is already required as part of the Public Works Permit, as well as lighting from the venue itself will shine light onto the bike parking area. Regarding covering the bike, PBOT Maintenance Operations is responsible for the racks since they are our assets. But a structure isn't part of their maintenance plan because covering is not a part of the bike coral program and thus not a PBOT asset. This then would become an Encroachment permit since affixing a structure to asphalt has its own engineering considerations, thus the venue would be responsible for maintenance. Another factor is unfortunately covered bike parking could be utilized for unintended ways (i.e. as shelter for people living outside), which again could cause maintenance / operation issues.
>
> - Again, electrical outlets are not a part of the bike coral program, esp. being outside, exposed to the elements, and unintended uses. Additional 12 spaces (6 racks) will be placed on SE Water sidewalk once the building is complete (exact placement TBD) and will also accommodate large bikes. Further, the current bike rack coral does not prohibit a large bike to be parked at the standard rack, esp. being positioned diagonally as mentioned earlier.
>
> - The goal and intention is that all bicycle parking is ready for the very first event, however no guarantees based on scheduling with PBOT rack installers, building construction completion, and building opening date. But upon review of the Public Works permit, PBOT can coordinate with Active Transportation division to schedule installation as close as possible.
>
> - Racks are going on the street; PBOT does not pave streets with concrete, but with asphalt. The applicant will be required to reconstruct and prepare the area to accept the rack installation as part of the Public Works Permit review. Regarding

tree wells, the proposed layout of the bike racks will be determined once street tree placement is determined so as to keep racks, as space allows, away from being underneath trees directly. Access to the sidewalk from the bike corrals in the street will be made at tree wells, meaning bike racks, to the best of our ability, will not be placed in these areas. There may be instances where trees are above some bike racks, which is unavoidable based on the length and dimension of bike corrals (see attached drawing).

- The remainder of SE Salmon would be free to typical traffic. The applicant's TDM measures did also indicate that possible street closure (to vehicles – similar to events at Providence Park) could still be needed if the bike parking demand exceeds that of what is provided. The applicant remains responsible for monitoring bicycle usage and taking additional TDM measures to mitigate the demand. Creating a "Woonerf" or other plaza treatment could be a possibility, but that would be reviewed as either Capitol Improvement Project (CIP) or future partnership with the venue; not associated with this particular Conditional Use development.

I hope this addresses your concerns. I ended up speaking with Pedro (I think that was his name) at Bike Happy Hour following the hearing last Wednesday, in which I provided the same response to him there as I am writing to you here. Thank you.

Michael Piña (he/him)
Development Review Planner II
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From: BikeLoud PDX <bikeloudpdx@gmail.com>
Sent: Wednesday, July 10, 2024 9:49 AM
To: Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>; Gulizia, Andrew <Andrew.Gulizia@portlandoregon.gov>
Cc: chair@bikeloudpdx.org
Subject: Bike Parking for Zoning Case 4240010

July 10, 2024
To: HearingsOfficeClerks@portlandoregon.gov Cc: Andrew.Gulizia@portlandoregon.gov

CASE FILE: LU 23-111784 CU AD (Pre-Application Conference # 22-128857 PC)
REVIEW BY: Hearings Officer (Hearings Office Case # 4240010)
WHEN: July 10, 2024, at 1:00 PM

I'm writing on behalf of BikeLoud to voice our interest and concern on the case file above. We are interested in how the proposed on-street bicycle parking, 108 stalls, will be coordinated with construction of the building. We are also interested in the

10 long term bicycle parking spaces, their location and design relative to venue employee needs.

Portland, as a City, should be doing everything it can to enable Portlanders to go by bike. The location of this site makes it ideal for many concert goers to arrive by bike, but planning accommodations for secure, comfortable, and convenient bike parking for the amount and variety of bicycles and riders expected is not an easy task.

We are concerned that the sidewalk along Salmon Street is not wide enough for an attractive experience for people walking and biking. Perhaps Salmon Street could have 6' advisory bike lanes with a 15' center aisle from Water Ave to the Eastbank Esplanade, or could be a "Woonerf" shared street. We are interested in events with "a maximum spectator capacity of 3,500" mentioned on page 2 of the case file. How many additional bike racks would be needed for an event of that size?

We recommend:

- Bike racks are installed *diagonally* to reduce handlebar conflicts.
- Security, lighting, and covering for short-term bicycle parking.
- Electrical outlets for e-bike charging, and larger spaces for cargo bike parking.
- All bicycle parking is ready for the very first event at this concert venue.
- Bike racks could be installed on concrete panels with tree wells in between.

We would like a response to this letter from the Bureau of Transportation and the Bureau of Development Services within 30 days. A face to face meeting could also be acceptable.

Sincerely,
Aaron Kuehn
Board Chair of BikeLoud PDX

BIKELOUD — Speak up for bicycling!

From: Kim Spiehler <kspiehler@batemanseidel.com>
Sent: Wednesday, July 17, 2024 3:38 PM
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Cc: Carrie Richter <crichter@batemanseidel.com>; Gulizia, Andrew <Andrew.Gulizia@portlandoregon.gov>
Subject: LU 23-111784 CU AD, Live Nation Event Venue on SE Water Street

Good afternoon,

Attached is correspondence from Carrie Richter regarding City file No. LU 23-111784 CU AD. Would you please confirm receipt?

Kind regards,
Kim

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July 17, 2024

VIA EMAIL

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Re: LU 23-111784 CU AD
Live Nation Event Venue on SE Water Street

Dear Hearings Officer:

This firm represents MusicPortland, which advocates for Portland's independent music industry which provides 20,000 jobs, nearly $1 billion in labor income, and over $3 billion in local economic activity. MusicPortland strongly opposes any Live Nation-run music venue because it will introduce parasitic business practices that will immediately seek to strangle the existing, largely independent music scene for performers, fans, promoters and venues. More importantly for this proceeding, MusicPortland opposes this proposal because this is the wrong use in the wrong place with the wrong design. The applicant has failed to complete the level of detailed analysis and identify realistic mitigation measures necessary to show that the applicable criteria will be satisfied.

The subject property is included within the City's Industrial Sanctuary plan designation area, which is intended to preserve the area for industrial uses, which the proposed venue categorically is not. Specifically, the Industrial Sanctuary plan requires:

> "… reserve[ing] areas that are attractive for manufacturing and distribution operations and encourage the growth of industrial activities in the parts of the city where important freight and distribution infrastructure exists, including navigable rivers, airports, railways, and pipelines. A full range of industrial uses are permitted and encouraged. *Nonindustrial uses are significantly restricted to facilitate freight mobility, retain market feasibility for industrial development prevent land use conflicts, reduce human exposure to freight traffic and potential air quality, noise, and pedestrian safety impacts, and to preserve land for sustained industrial use*." (Emphasis added)

If approved, this development will inject nearly 3,000 concert attendees into an industrial area that was never designed, nor intended, to accommodate such visitors. Concert attendees are willing to spend exorbitant funds and travel great distances to see their favorite bands. These are people who probably do not spend a great deal of time within the Central Eastside Industrial area. They may be unaware that SE Water Avenue serves as a critical freight truck throughway or that one block away from the entrance to this venue, Union Pacific-directed freight and passenger trains bisect this area for long periods at entirely unpredictable intervals throughout the day and night. Overstuffing the subject property with programmatic requirements, the proposed design requires that all of the event support equipment delivery trucks and tour busses spill over the sidewalk and into the SE Main St travel lane demanding dangerous turning movements and creating obstructions to pedestrians and cyclists. These circumstances will result in extremely unsafe conditions for all travel modes that will not and cannot be mitigated. It is for these reasons, that this application must be denied.

Transportation Conflicts are Significant, Not Analyzed and Not Mitigated

Pedestrian Access Conflicts with Trains

The Union Pacific railroad tracks run parallel to SE Water Avenue one block away from the entrance to this venue. Approximately 19 freight trains and 6 passenger trains use these tracks daily with trains travelling an average speed of 17-35 mph. Although passenger trains are scheduled, freight trains are not scheduled; they can and do occur anytime. For example, the TIA notes that two freight crossings were recorded between 6 pm – 9 pm and three were recorded between 10 pm and 1 am. TIA p 53. None of the railroad crossings between SE Stark Street and SE Clay Street include any pedestrian crossing protections. Union Pacific has reported three collisions with trains over the past five years, two of which were fatal. TIA p 9.

In most cases, pedestrians will have to cross the railroad tracks twice in an evening – once getting to the venue and again, when returning. It must be assumed that after these events, pedestrian attendees are likely to be experiencing some level of alcohol or drug impairment. These events will end around 11:00 pm when it is dark, often wet and with limited visibility.[1] According to Portland's Vision Zero Data, 70% of pedestrian deaths and serious injuries occur at night. The applicant's inadequate TIA does not even attempt to identify how many attendees will cross the railroad tracks for an event, but a few estimates can be gleaned from the numbers as they are set forth in the TIA:

- Pedestrian access to all streetcar and any bus lines along SE MLK or SE Grand demands crossing the tracks - 289 pre-event and 436 post-event total pedestrian and transit trips. TIA p 24. Although it is not clear, using the vehicle trip distribution assumptions may

[1] The application does not include any survey of street lighting to know if the paths to transit on SE Grand or to the bridge viaducts to stairwells are lighted.

be instructive for determining pedestrian / transit end-destinations. If so, about 50% of these transit trips will be accessed on the east side suggesting that somewhere between 300 – 420 pedestrian track crossings will occur every evening the venue is in use.

- Of the 45 blocks identified within .25 miles of the venue where on-street or private parking is available, only 14 of those blocks are located on the same side of the tracks as the venue. Accessing the remaining blocks, which accounts for 58% of the proximate supply – approximated 446 vehicles or 892 people, assuming that each vehicle holds two people, requires crossing the railroad tracks. TIA p 46.

- A transportation and parking demand management plan to incentivize travel other than in single occupancy vehicles and seeking to encourage the use of transit, walking and bike travel options only increases the risk of conflicts with trains.

Taken together, this analysis indicates that, at a very minimum, 1,000 of the concert attendees, about one-third of the total, will need to cross the tracks on foot to arrive at an event. Unpredictable train crossings that "average 10 minutes"[2] will create an incentive for excited attendees to make poor choices, risking their lives, to make it to an event on time. After an event, poor visibility coupled with judgment-impaired attendees crossing train tracks is nothing more than a recipe for disaster.

Portland Zoning Code (ZC) 33.815.215(A)(3) requires a finding that "the transportation system is capable of supporting the proposed use in addition to the existing uses in the area" including "safety," "impacts on pedestrian circulation." This provision goes on to explain that:

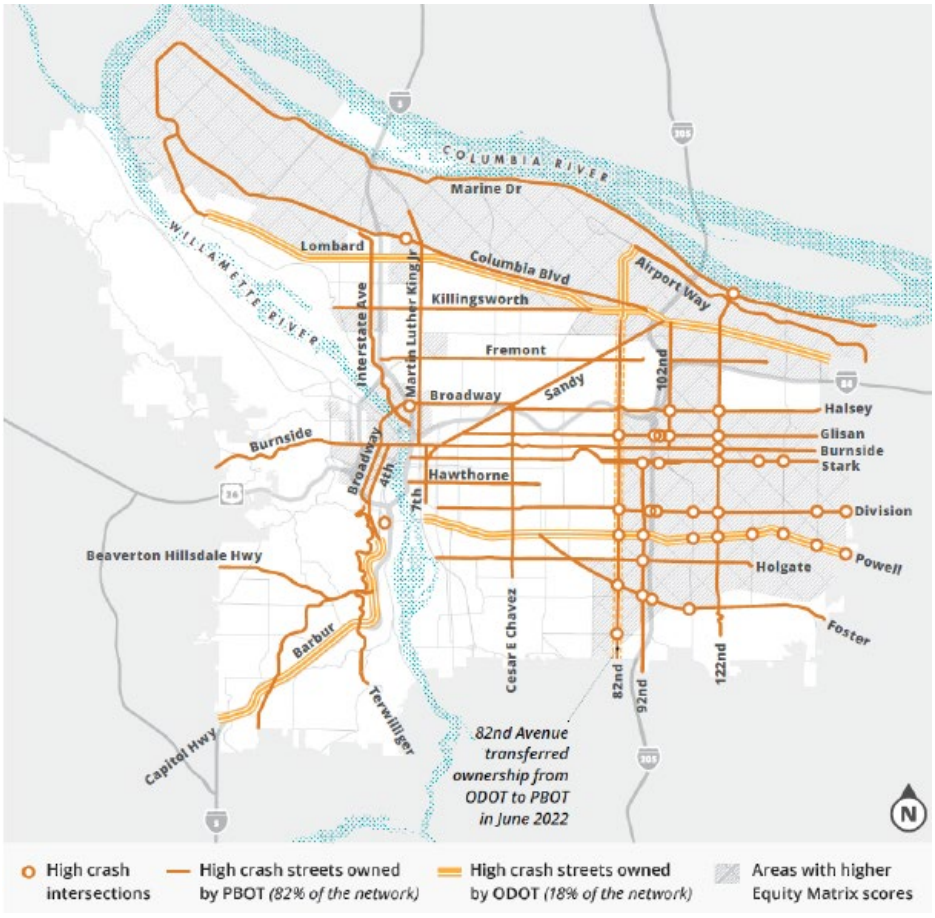
> "a finding of failure in one or more factors may be acceptable if the failure is not a result of the proposed development, and any additional impacts on the system from the proposed development are mitigated."

Locating a major entertainment venue one block from the City's most heavily used train tracks, where lengthy freight trains barrel through in excess of 15 miles per hour, creates pedestrian safety and circulation failures. The applicant identified no mitigation for this significant injection of pedestrian traffic demanding pedestrian rail crossings far in excess of anything that exists today. Rather, the only mitigation noted in the TIA is an Advance Warning to Avoid Railroad Delay (AWARD) system to provide advance information on train crossings. However, when it is available, it will notify drivers along I-84 and would offer no assistance to protect or otherwise aid pedestrians, cyclists, or any concert attendee that does not travel on I-84.

[2] The TIA states that the "average delay for a freight train is 10 minutes." This suggests that there could be many times that delays are significantly longer than 10 minutes.

Additional Vehicles and Pedestrians will Exacerbate Accident Rates on High Crash Streets

The crash data in the TIA purports to evaluate accident rates as certain "study intersections" and concludes that three of the eight intersections studied have an "over-critical" crash rate. The methodology that drove DKS or PBOT to identify the "study intersections" is not at all clear. For example, the TIA assumes that 30% of the attendees will arrive from over the Hawthorne Bridge but no westside intersections were evaluated. The attached map taken from Vision Zero shows that the subject property is at the nexus of multiple high-crash streets, including SE Hawthorne, SE 7th and SE Stark:



According to the TIA, the SE Water / SE Salmon intersection accommodates 200 vehicle trips during the 6 pm hour (pre-event peak hour) and 50 weekday trips at the 11 pm hour (post-event peak hour). A total of six crashes have been reported at this intersection, which the TIA identifies as an "over-critical crash rate." TIA p 11. The peak hour trip model assumes that events at this

venue will generate 699 pre-event vehicle trips. Assuming no increase in background traffic over time, this is a 3-fold increase over what currently exists today. With the post-event peak hours analysis, the numbers are even more stark. The TIA assumes 1011 pm peak hour vehicle trips, 20 times the amount of traffic that exists in this area at 11 pm today. According to the applicant's traffic engineer: "Crash frequencies (the number of crashes in a period of time) tend to increase with higher vehicle traffic. With more exposure to vehicles, there are more opportunities for crashes to occur." TIA p 10. Notwithstanding this statement that would counsel otherwise, the TIA makes no recommendations for mitigation to address this high-crash rate. Nor does the TIA acknowledge Vision Zero finding that 69% of deadly crashes involve alcohol or drug impairment and it is highly likely that some, if not many drivers, will be impaired. The TIA makes no safety accommodation for these judgment impaired attendees, which is critical given that train-intensive industrial uses will continue creating life-threatening conflicts.

The application explains that the crashes at the SE Salmon / SE Water intersection are caused by running the 4-way stop signs resulting from driver "inattention" or "failing to yield." The applicant offers a conclusion that installing frontage improvements will increase driver attention. No analysis is offered explaining why adding new wider sidewalks will result in drivers noticing stop signs. No reasonable person would believe that building a concert venue attracting well-known performers, upcoming event signage, and truck loading and unloading on the street right-of-way will do anything other than further distract drivers. What is much more likely is that this live music venue, standing alone amid largely vacant lots will have the effect of increasing driver inattention away from stop signs, trains and other possible conflicts increasing to the already high crash rate.

SE Salmon St. and SE Main St. are designated as Local Streets and SE Water Ave. is designed as a Neighborhood Main Street, in addition to being Major City Walkway and Bikeways. These streets are most often part of a neighborhood street system and are typically free of through-traffic. Here, the opposite is true. The surrounding local streets, particularly Water Ave. is much more heavily used bypass-through traffic. Drivers are seeking to access the Hawthorne Bridge or move off of I-84, passing along SE Water Ave to reach a more distant location. The result of this high level of pass-through driving suggests that most drivers do not frequent this area becoming familiar with the road signs and circulation patterns. This might help to explain the driver-inattention causing high crash rates. Developing a concert venue will only exacerbate this concern by injecting an exponentially larger number of drivers who are similarly not familiar with the roads in this area, will disregard traffic signs and contribute to the crash rate.

Finally, the tremendous influx of cars will create conflicts with trains just like pedestrians. Nearly half of the vehicle trips arriving and departing from this venue are projected to be travelling from locations east of the railroad tracks. Again, this requires vehicles to cross the tracks as they approach the venue as well as when they exit. Attendee vehicles will increase the

risk of conflicts with unscheduled trains. This is just another conflict that the applicant did not address and that cannot be mitigated.

Lack of Convenient Access to Transit

The application includes a transportation demand management plan that purports to identify strategies to help achieve the mode split targets. This plan opens by identifying the location of existing transit facilities including bus and streetcar and their service schedules. What this plan does not address are the significant challenges associated with accessing the venue using transit. There is no bus or transit service on SE Water Ave. Portland Streetcar access is available on SE Grand or SE MLK, which requires crossing the railroad tracks and proceeding three or four blocks through a largely unlit and, according to the applicant, when most of the surrounding industrial uses are closed. The closest bus service is located under the SE Madison Street and SE Hawthorne Boulevard viaducts and are accessible only by climbing or descending 45 stairs. Access from SE Belmont to the Morrison Bridge requires climbing 49 stairs. The applicant has not identified whether these stairs are lighted or reliable for providing safe access, but in any event none of these transit options will be comfortable or convenient.

Other than improving the sidewalks adjacent to the venue, the applicant does not identify any other improvements to protect pedestrians in providing safe and convenient access to transit. The demand management strategies identified for transit include promoting the use of park-and-ride and marketing the use of transit ridership. These efforts will do nothing to improve limited pedestrian facilities that were not designed to provide access to support event-driven nightlife. The applicant has not made any realistic assessment of how access to transit from this venue can safely be provided, nor offered any meaningful mitigation.

Failure to Evaluate Employee Trip Generation

Trip generation calculations are based entirely on attendee numbers during pre-event peak hour (7-8 pm) and post-event peak hour (11 pm-12 am). Yet sold out events are stated to require up to 350 employees that will arrive before 6:00 pm. Assuming as much, these employee trips will occur during the pm peak hour for general commuter traffic, which is from 4-6 pm. No analysis was done on the impact employee trips will have on intersection functionality during the traditional pm peak hour.

On-Street Truck Loading is Inadequate and Will Create Dangerous Conditions

The application seeks an adjustment to allow truck loading to extend onto SE Main Street. The truck loading dock will have two off-street loading bays. However, truck maneuvering to the loading area will require a truck to head east on SE Main Street and then to back across the entire intersection of SE Water, a designated Major City Bikeway and a Major City Walkway, onto the west side of SE Main Street. This is an incredibly dangerous maneuver that is in direct violation

of the Vision Zero policies. Although the applicant claims that flaggers will be used, the application contains insufficient details about how this flagging will practically be accomplished and there are no conditions identified requiring such precautions. The approved OMSI Masterplan calls for installing a two-way cycle track on SE Water Avenue. The applicant has not addressed how this additional influx of bicyclists will be adequately protected or how the projected crash rates will change with this entirely impermissible backing maneuver.

Once these trucks are fully backed up to the loading bay, more than half of the semi-truck length will extend over the sidewalk and out into the SE Main St. travel way. With this blockage, only 21.6 feet of vehicle travel lane will remain available for cars, bicycles and pedestrians. According to the TIA, two of these semi-trucks will arrive at the venue between 7:00 am and 12:00 pm and they will depart within two hours after the event conclusion. TIA p 33. This means that the sidewalks and nearly half of the SE Main St. travel way will remain blocked and unavailable for use by pedestrians and bicyclists coming to or leaving an event via the Eastbank Esplanade, which the TIA suggests will be the most preferred route for bicyclists. The applicant claims that this loading configuration will only be "temporary", but it is not "temporary" if the condition exists when attendees arrive, depart and through the whole day before an event occurs.

The TIA proposes to install a permanent swinging gate that can be closed to block the sidewalk when trucks are located in the loading dock – which will essentially be all of the time. No reasonable person would believe that yellow signs saying "road work ahead" or arrows indicating changes in the road width would be sufficient to notify or protect bicyclists (or vehicles), particularly when the evidence shows that drivers in this area tend to be "inattentive" and "fail to yield" the stop signs that exist today. Signage of this sort will clearly be insufficient mitigation.

Further, allowing loading trucks to remain on SE Main St. is a direct violation of Buckman Neighborhood Plan objective 5.10: "Discourage trucks from blocking the streets when loading and unloading except in the designated truck zone." Unlike SE Water Ave., SE Main St. is not designated a Priority Truck Street. The applicant did not seek any adjustment to this applicable plan policy. With respect to the adjustment to the two off-street loading space requirement, ZC 33.266.310.C.2.c, requires a finding that granting the adjustment will "equally or better met the purpose of the regulation to be modified." The purpose for the loading standard is to "ensure that access to and from the loading facilities will not have a negative effect on traffic safety." The applicant's only response is that PBOT determined there would be no impact on safety so long as the applicant maintained an Angle Loading Permit. PBOT offered no analysis of how it came to this conclusion, given the high crash status of these roadways, nor did it explain what it is about the Angle Loading Permit that will ensure the safety of pedestrians and bicyclists concert goers who may have had a bit too much to drink before heading home. Obtaining an Angle Loading Permit cannot simply serve as a surrogate to find that the on-street loading plan

provides the same level of safety as freeing the sidewalk and road for use by pedestrians and cyclists, much less that it is "equally or better met" by the adjustment.

In addition to the large semi-trucks occupying half of SE Main Street during the whole of an event, the TIA identifies events may also include "two trucks and three buses." One bus "may be staged along Main Street," further blocking the limited improved portion of SE Main Street, and if more than one bus is necessary, it will be staged elsewhere on private property. The applicant must identify where these buses and additional vehicles will drop off and be stored to ensure that they do not block areas for cyclists or pedestrians or reduce available on-street or off-street parking. Further, there is no mention of where the "two trucks" will be accommodated. The off-street loading demands of this use have not been fully evaluated.

Finally, development on this block represents the middle component of a larger three block proposal pursued by Prosper Portland. No analysis has been offered to show what impact development on the remaining two vacant lots will have on this off-site loading plan or attendee access circulation more generally.

Fire Access and Service Demands have not been Addressed

The application does not include a letter or other affirmative statement from the fire department that it has reviewed the proposed design for adequacy. This is critical because the loading trucks will severely constrain access for fire equipment. Additional fire access is required for any building taller than 30' in height. (OFD D104.1). The overhead power lines in SE Water Ave. preclude aerial apparatus access requiring reliance on SE Main St. or SE Salmon St. for aerial access. Further, the overall lot dept of 174 feet requires a turnaround is using SE Main St. or SE Salmon St. to meet this requirement. No hammerhead or other turnaround is evident on the site plan. Finally, no roof access or side frontage access is shown as would be necessary to satisfy fire code requirements.

Beyond the safety of the proposed venue, Portland Fire and Rescue Station 21 is located immediately to the west of the proposed site. There is no analysis of the impact the untenable parking and loading situation will have on the operations of that Fire Station. If an emergency were to occur immediately prior to or immediately after a concert, access to or from the Fire Station would be nearly impossible as patrons stream into or out of the venue.

Similarly, no evaluation has been done on the ability of emergency medical responders to access the site in the event of a train crossing. Emergency vehicles must be able to rely on the transportation system as it exists, including any additional improvements for development, to provide efficient and timely responses. Here, the applicant has made no effort to show that the existing system, including conflicting trains, will be adequate to provide emergency medical support that may be necessary to protect the fans, artists and venue operators.

In summary, the applicant has failed to provide evidence and analysis necessary for the hearings officer to conclude that "the transportation system is capable of supporting the use." Although mitigation demands must be proportional to the impacts, the applicant has offered nothing to address the conflicts created by adding an influx of non-industrial users into an active industrial area. The applicant's failure to identify the level of street crossing and train crossing improvements necessary to get attendees safely and conveniently from the venue to the Eastbank Esplanade by bicycle or to transit, either across railroad tracks or upstairs to the Hawthorne or Morrison Bridges, or to parking spaces through congested high-crash intersections requires that this application be denied.

The Venue Design is Not Consistent with the Industrial Zone or Surrounding Uses

ZC 33.815.215(B) requires a finding that:

> "the appearance of the facility is consistent with the intent of the zone in which it is to be located and with the character of the surrounding uses and development."

Industrial zones "are reserved for industrial uses and for areas that have a mix of uses with a strong industrial orientation." PCC 33.140.010. With respect to the exterior design choices, the applicant claims that the "building will have a similar look and feel to a very upscale warehouse." It is not at all clear where there is an example in the IG zone of a windowless, 4-story, vertical wood-clad warehouse or that these design elements are otherwise consistent with the intent of the IG zone. Industrial buildings in this area are characterized by stucco, plaster finished or exposed masonry structures with uniform bands of symmetrical punched windows. The proposed design does not reflect any of these elements typical of surrounding structures.

To the extent that the applicant believes that this design complements the surrounding uses, it must provide some inventory of buildings that inform the design characteristics of surrounding uses and the industrial zone and provide streetscape renderings to evidence how this building will convey the industrial nature of this area. For example, how will this venue appear when viewed from the Hawthorne Bridge, where this building will be highly visible. Rather, what the applicant has done is design a concert venue and given it a title - "high end warehouse." This building may be "high-end" but there is nothing resembling a "warehouse."

Rather than focus on the industrial zone and surrounding industrial uses, the applicant's analysis selectively focuses on complementary nature of this use with surrounding bars, entertainment and event venues, and restaurants. This approach replaces the term "appearance" with "use" which does not appear in the language of the standard itself and does not address the "intent of the zone." The applicant views this venue as an "economic catalyst" that will attract other supportive activities to this area. The problem with this is that the supportive activities that this venue will bring will not be industrial – employment focused catalysts. The City has made a decision to limit retail and service uses in the IG area to protect these lands for non-industrial

development. Yet, these are exactly the uses that the applicant is expressly seeking to draw. Attracting additional entertainment and restaurant uses into the industrial area is not the intent of the IG zone, nor is it consistent with the surrounding industrial uses. For these reasons, the hearings officer must conclude that this criterion is not satisfied.

If there are any Public Benefits Realized by a Live Nation-Operated Concert Venue they are Outweighed by Transportation Conflicts as well as Anticompetitive Operations that will Choke Out the Local Music Industry.

ZC 33.815.215(C) requires a finding that the "public benefits of the proposed use outweigh any impacts that cannot be mitigated." The applicant claims that the only impact is transportation-related and because all of these impacts are mitigated, this standard does not apply. As explained in significant detail above, the applicant has not identified, nor fully analyzed the safety and circulation-related transportation impacts and so any claim of mitigation is entirely inadequate.

From there, the applicant argues that an "event venue" operating at night provides a much greater benefit in terms of complimenting nearby bars and restaurants than a vacant lot. As stated in the purpose statement for the zone, noted above, non-industrial uses are to be "significantly restricted" to promote industrial development. This venue will not provide a showroom for a nearby stage or set crafting company or a speaker manufacturer located within the district, as would be consistent with intent of the IG zone. Permanently removing vacant land that otherwise would be available for industrial use from the limited supply of industrial land for a non-industrial use similarly offers no industrial benefit.

During the hearing, the applicant's attorney argued that particulars relating to the operator, or its business practices are not relevant in a land use case. Nothing in the plain language of this criterion suggests that this inquiry is necessarily so circumscribed. This criterion asks about the "public benefit of the use." The "use" in this case is a music venue oriented, designed and constructed to specifications necessary to operate a Live Nation-run concert venue. As such, Live Nation, and its business practices, are entirely and inextricably bound up in how this use will function to serve a particular purpose. Here, the purpose for this use, as directed by Live Nation, will to engage in the same unlawful, anticompetitive, monopolistic behavior that injures artists, fans, small promoters and venue operators, as alleged in the lawsuit currently being pursued by the Department of Justice and 30 other states, including the state of Oregon. The benefit of developing this venue for the benefit of Live Nation will not be to eliminate crime but rather to perpetuate it.

Further, the applicant and city staff fail to acknowledge that this criterion is directed to comparing public benefit realized against "any impact." The term "any impact" demands an evaluation of exactly what impact that the proposed use will have. Nothing in the language of this standard imposes a limitation on what can be considered. Rather, this standard gives the city

broad discretion to interpret the types of impacts that should be considered. These impacts could include economic impacts, social impacts, or traffic and aesthetic impacts. As the owner of this land, Prosper Portland is subsidizing Live Nation through a low-rate long term lease. Because of this public subsidy, it would be reasonable to interpret this "public benefit" compared against "any impact" criterion to impose an even higher standard or require greater scrutiny because the expenditure of public resources deserve greater protection. Without evidence that such subsidies result in a clear and significant public benefit with no unmitigated impact, the hearings officer must conclude that this standard has not been satisfied.

Conclusion

For all of these reasons, the hearings officer must conclude that the criteria necessary for granting the proposed conditional use and the adjustment applications have not been satisfied and deny these requests.

Sincerely,

Carrie A. Richter

CAR:kms
cc: Client
Andrew.gulizia@portlandoregon.gov

From: Damien R. Hall <DHall@dunncarney.com>
Sent: Wednesday, July 17, 2024 3:40 PM
To: Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>
Subject: Case No. 4240010 - Central Eastside Music Venue (1 of 3)

Hearings Office Clerk:

On behalf of the applicant in the above-captioned review, please find attached the following evidence submitted during the open record period.

1. DCI Technical Memorandum
2. Economic Impact Analysis
3. Email dated 7.17.24 from Doug Sheets
4. Revised sheet L202
5. Revised sheet Z105

Please don't hesitate to contact me on this matter.

Damien R. Hall
dhall@dunncarney.com
Direct 503.306.5305 | Fax 503.224.7324 | DunnCarney.com

Dunn Carney Allen Higgins & Tongue LLP
Suite 1500, 851 SW Sixth Avenue | Portland, OR 97204
Member of Meritas Law Firms Worldwide Meritas.org

Damien R. Hall

From: Doug Sheets <Doug@leverarchitecture.com>
Sent: Wednesday, July 17, 2024 2:17 PM
To: Damien R. Hall
Cc: Jonathan Ledesma; Jonathan Malsin; Suzannah Stanley; Chris Grosse; David Remos; Martha Williamson
Subject: CEV - Roofing information

Damien,

As requested in response to the Conditional Use comments, the Cool Roof Rating Council (CRRC) provides solar reflectance data on both walls and roofs. Solar reflectance values range from least reflective (0) to most reflective (1) and are expressed as a fraction of solar energy that is reflected by the surface. Their published information for walls categorized as Bright White provide an initial solar reflectance range of 0.70 - 0.85 while roofs categorized as Bright White show a comparable range of an initial solar reflectance range of 0.74 - 0.91. These ranges are initial, but these values should be expected to reduce over time to an aged value through natural weathering.

Although the project is not currently pursuing it, LEED v4.1 Building Design and Construction (BD+C) award credits for heat island reduction for providing either high-reflectance roof or vegetated roof. Both strategies are useful in their intended goal of heat island reduction.

Please see below for some additional information on the roofing product selected:

- **TPO Roof Material**: TPO (Thermoplastic Polyolefin) is a roofing material that is a single-ply roofing membrane composed of 3 layers (a TPO polymer base, a polyester-reinforced scrim, and a TPO compounded top ply). According to a report by the National Roofing Contractors Association, it was developed as an alternative to rubber and PVC roofs and is one of the fastest-growing roofing systems on the market, making up an estimated 40% of the commercial market according to a report by the National Roofing Contractors Association.

- **Adjacent TPO Roofs**: White TPO roofs are commonly used on buildings adjacent to elevated roadways, including buildings adjacent to the I-5/I-84 corridor (e.g. River East Center located at 1515 SE Water Avenue). We are not aware of issues related to reflectivity onto the elevated roadways from those buildings with white TPO roofs.

Thank you.

Doug

--
Doug Sheets
Principal

LEVER

4713 N Albina Ave, 4th Fl, Portland, OR 97217
c 503 679 2934
leverarchitecture.com

July 16, 2024

Colas Development Group
Attn: Jonathan Ledesma
1419 NW 14th Avenue
Portland, OR 97209

Re: CEV: Conditional Use Hearing/Eco roof

Dear : Jonathan

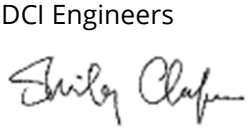
This memo is to address the impact of Eco roof weight to the structural performance under gravity and seismic loading. The Eco roof saturated maximum weight of 85psf will add 1,243,000 lb, which is 20% increase in mass to the structure. The roof framing, consists of steel trusses that span 150ft, will need to be upsized to support the Eco roof load. If the trusses depth grows deeper, they will interrupt line of sight for the audience in the upper level which means the building height needs to be adjusted to accommodate deeper trusses. The foundation system for the structure, which is 100ft long piles to get down into gravel layer, will have to be increased by 20% in quantity to support the added load from Eco roof.

The site's adjacency to Willamette River consists of debris and sandy silt down to approximately 80ft where cobbles and gravels were found. Geotechnical investigation found the site will experience seismically induced hazards such as Liquefaction and Lateral Spreading during seismic event. Liquefaction hazard means the structure could experience large downward settlement whereas Lateral Spreading hazard means the structure could experience lateral movement towards the river. To mitigate these hazards, deep foundations embedded into the gravel layer tied by grade beams or mat slab will be designed to resist axial, shear and moments induced by gravity and seismic loads. Additional mass from Eco roof will increase seismic loads to these piles.

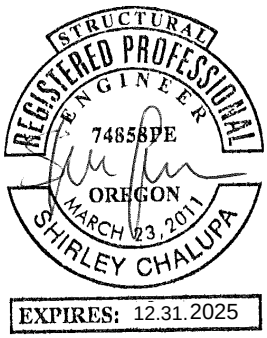
The CEV's primary occupancy is public assembly with occupant load of 3500. OSSC (Oregon Structural Specialty Code) classifies the building as Risk Category III per table 1604.5. The Risk Category III requires building lateral system to be designed to resists 25% more seismic load compared to typical buildings. Additional mass from Eco roof will substantially increase seismic loads to the structure which means the shear walls and piles will grow in size and quantities.

With the structural challenges listed above, DCI recommends reducing Eco roof weight on the structure as much as possible to reduce the gravity and seismic loads to the structural framing, lateral system and piles.

Sincerely,
DCI Engineers



Shirley Chalupa, PE, SE
Principal
921 SW Washington Street, Suite 560
Portland, OR 97205



Aerial View Looking North

ECONOMIC IMPACT ANALYSIS OF A PROSPECTIVE ENTERTAINMENT VENUE IN PORTLAND'S CENTRAL EASTSIDE

PREPARED FOR

PROSPER PORTLAND

AUGUST 2023

JOHNSON ECONOMICS

JOHNSON ECONOMICS

TABLE OF CONTENTS

I. INTRODUCTION

JOHNSON ECONOMICS was hired to prepare a third-party analysis of the economic impacts of a proposed music venue in Portland's Central Eastside.

This analysis considers the following categories of economic and fiscal impact from the proposed development:

A. Economic Impacts: Impacts on employment, payroll, and capital investment from the construction of the facility, and on-going operations. Direct, indirect, and induced impacts are considered.

B. Fiscal Impacts: Projected impacts to local, state, and federal revenues from property and income taxes, fees, and system development charges.

C. Spillover Impacts: Additional potential qualitative benefits and costs are discussed throughout the report.

The preliminary details of the proposed development are likely to change through the planning and development process. While findings are presented in precise figures, achieved results are likely to differ somewhat. Therefore, the forecast presented in this analysis is intended to provide order-of-magnitude estimates of the likely economic impacts of the construction and operation of the facility in this location, based on the best and most reasonable assumptions available at the time this analysis was completed.

II. EXECUTIVE SUMMARY

A new entertainment venue is being proposed on Block B of the Workshop Blocks in Portland's Central Eastside. While still in its preliminary design phase, the venue is expected to be approximately 59,000 square feet with a capacity of 3,750, of which approximately 2,000 would be on the standing general admission floor. The location is bound by SE Salmon to the north, SE Mill to the south, and SE Water Avenue to the east. The parcel is owned by Prosper Portland, the city's economic and urban development agency. Beam Development currently has exclusive development rights on the parcel as well as the two adjacent parcels to the north and south. Beam Development and Colas Construction plan to jointly develop the project and lease it to Live Nation, a global leader in the live entertainment industry to operate it.

The live music industry plays a significant role in the local and regional economy. A recent report completed by the Northwest Economic Research Center estimated that the live performance industry accounted for over 15,700 direct jobs in the State of Oregon in 2021, increasing to 21,143 when indirect and induced jobs are included. The industry generated more than $850 million in labor income and $3.1 billion in economic output. The performance venue sector accounted for 7,690 of these jobs. In addition to evaluating the direct impacts of the proposed facility, this analysis also addresses the potential impact(s) of the new facility on the existing local live music ecosystem.

MusicPortland provided data from NearHear, a free event calendar and music aggregator that coordinates local events in the Portland metro area. The data on overall booking activity collected by MusicPortland from NearHear

data documents were over 21,600 shows in 2019. Pollstar data is reported in this report as it provided time series information to identify trends, but it is limited in coverage and accounts for less than 7% of overall show volume in the Portland area.

The build-out of the proposed entertainment venue would entail a significant level of investment in real property and equipment over the coming years. Investment is estimated at $800 per square foot of built space in 2022 dollars, with an overall investment of $47.2 million for the facility.

As outlined in this report, the proposed development is projected to have a range of economic and fiscal impacts in the City of Portland and Multnomah County. The impacts include new employment, payroll, spending with vendors on construction and operations, new tax revenue, and indirect and induced economic activity.

The addition of this venue to the local market will broaden the local and regional performance venue offerings, providing for an increased level of options for local and touring acts. The anticipated operator has extensive relationships with performers/acts and will increase the marketing presence of the venue. "While the entry of a strong competitor into the market with a new venue is likely to impact existing venues, the proposed facility will largely occupy a missing gap in the City's current lineup. The facility will provide capacity for roughly 3,750 attendees, of which approximately 2,000 would be on the standing general admission floor. The scale of the project and significant general admission capacity will differentiate it from facilities such as the Schnitzer.

Our expectation is that the new venue will contribute to an increase in the number of acts and live performances attracted to the market, while also redistributing event traffic and locally originating expenditures. It will address a deficiency in the current market that was noted by several industry professionals interviewed as part of this analysis.

The following is a summary of projected impacts:

Construction of Facility

- $47.2M in direct investment in the new performance venue over a three-year period. $188 M in additional indirect and induced economic output.
- Construction spending would translate into an estimated 223 direct full time equivalent (FTE) jobs over the construction period (assumed to be two years for site and venue improvements). Direct jobs would pay an estimated average of over $99,600 per FTE for wages and benefits.
- Each direct construction job would support approximately 0.84 indirect and induced jobs during the construction period. This translates into roughly 188 FTE jobs, with overall labor income of $12.9 million during the construction period.
- $34.9M in labor income over the construction phase. (Labor income is included in the total investment presented above.)
- The total estimated economic impacts (direct, indirect, and induced) from the construction phase are over 411 FTE positions and $34.9 million in labor income (current dollars).

ONGOING OPERATIONS

- At stabilization the facility is assumed to host 126 events per year. Of these, 81 would be concerts promoted by Live Nation, 20 would be concerts promoted by a different entity, and 25 would be special events such as weddings or meetings.
- Live Nation anticipates that roughly 70% of all event attendees will live in Portland, with 30% living outside of the city. Roughly 5% of total attendees are assumed to stay overnight due to show attendance. Our analysis utilizes these attendance expectations in estimating ongoing impacts. Stabilization of the facility is assumed to be 2029, with the facility opening in 2025.
- When stabilized, the facility is expected to support a total of 42 full time equivalent positions within Multnomah County, with estimated annual payroll in current dollars of over $2.2 million. The total supportable employment from operations at the facility would be 71.6 full time equivalent positions.
- Attendees at events are expected to generate an increase in demand for overnight lodging. Overnight stays would generate additional expenditures outside of the venue, such as restaurant/bars expenditures. At the county level, overnight stays are expected to support a total of 8.3 full time equivalent positions and payroll of $414,300 at stabilization.
- At the county level, overnight stays are expected to support a total of 8.3 full time equivalent positions and payroll of $414,300 at stabilization.
- The degree to which the impacts are captured within the City of Portland are a function of the assumed capture rate. If 80% of employees at the facility and 95% of overnight stays are located within the City of Portland, the venue's ongoing operation would support a total of 65.1 full time positions and close to $3.4 million in payroll within the City of Portland.

PROJECTED ONGOING IMPACTS AT STABILIZATION, CITY OF PORTLAND AT ALTERNATIVE CAPTURE RATES

Assumed City Capture Rate	PROJECTED IMPACTS, CITY OF PORTLAND (2022 $s)			
	Employment	Labor Income	Value Added	Output
ONGOING - OPERATIONS				
40%	28.6	$1,484,185	$2,718,779	$4,207,119
60%	42.9	$2,226,277	$4,078,168	$6,310,679
80%	57.3	$2,968,370	$5,437,558	$8,414,238
90%	64.4	$3,339,416	$6,117,252	$9,466,018
ONGOING - VISITORS				
20%	1.7	$82,853	$133,624	$248,224
40%	3.3	$165,705	$267,247	$496,448
60%	5.0	$248,558	$400,871	$744,671
80%	6.6	$331,411	$534,494	$992,895
95%	7.8	$393,550	$634,712	$1,179,063
OVERALL ONGOING	**65.1**	**$3,361,920**	**$6,072,269**	**$9,593,301**

- Calculating the net impacts of operations on the local and regional economy is highly dependent upon assumptions as to the percentage of new traffic into the region can be attributed to the proposed facility. Entertainment-related expenditure within a set geographic area tends to be largely limited, and expenditures captured by events at a venue typically represent a redistribution of expenditures as opposed to net new economic activity.
- The operator expects 30% of their attendees will live outside of the City of Portland, and 5% are assumed to stay overnight. The assumption is not documented but seems reasonable. While linked to attending an

event at the facility, the event may not be the primary or controlling reason for all these trips, and it would be reasonable to assume that a significant share of these trips would have occurred anyways. In instances in which the trip would have occurred for another reason, the expenditures would represent a redistribution as opposed to net new activity.

Fiscal Impacts

- Development and operation of the venue would have fiscal implications for the City of Portland, Multnomah County, other local service providers, and the State of Oregon. These impacts include property taxes, income and business taxes, and development charges and fees.
- When fully developed and operational, annual property tax revenue from the property is expected to be roughly $577,900 in current dollars. Of these, an estimated $221,400 would be collected by the City of Portland, including bonds, pensions, and urban renewal revenues.
- Event related overnight stays are expected to result in over 5,000 room nights per year by 2029, generating an estimated $103,700 in annual transient lodging taxes.
- The project would be subject to the State of Oregon's Corporate Activities Tax, which is estimated to yield over $41,000 per year when the facility is stabilized in 2029.
- The development will also contribute significantly to tax revenues during the construction period.

Other Considerations

- The lessee and operator of the facility will be Live Nation, a global entertainment company that promotes, operates, and manages ticket sales for live entertainment. The group also owns Ticketmaster. Live Nation's dominant position in the industry provides significant competitive advantages in booking artists and events.
- As an established and publicly traded company, the lease commitment by Live Nation will likely increase the marketability of debt for the facility with lenders.
- Interviews with individuals in the music promotion and venue industry raised concern that Live Nation expanding its influence in the Portland market could negatively impact local venues and local promoters. Live Nation's market power and financial depth provide for significant competitive advantages.
- The proposed facility provides a facility size and characteristics not currently found in the market. The availability of the venue has the potential to increase the region's ability to attract touring acts. While a new venue will likely result in some redistribution of existing bookings, the venue has the potential to increase the pool of local performances that can be accommodated.
- The current development environment is unusually challenging, and the financial and market strength of Live Nation increases the ability of the developer to finance this facility.

The analysis includes both quantitative economic and fiscal impacts as well as qualitative information gained from interviews with contacts in other cities where Live Nation is operating a venue. Appreciating that at times these sources of information are in conflict, below is a summary of what has been said from a qualitative perspective and the findings from the analysis.

Claims	Findings	Mitigating Factors
A new venue will negatively impact other venues' ability to book acts	A new venue in the market will increase competition, but the program (standing general admission) addresses a gap in local venues. The availability of the new venue is expected to increase the number of shows attracted locally, while also impacting the distribution of bookings. Booking agents interviewed cited a need for this type of facility in Portland	New venue would be expected to significantly increase the overall volume of shows in the market
Live Nation's control of Ticketmaster provides an unfair advantage	All venue operators and promoters of scale have ticket sales operations (including locals)	Live Nation would operate as "open venue" enabling other booking agents to schedule at the venue
Live Nation will try to control the market over time	In markets where Live Nation has control of a local venue, they have a strong but not "monopoly" market share	Live Nation offering to allow outside promoters to book at the venue, and assumes 16% of bookings will be with outside promoters
A higher percentage of Live Nation earnings leave the local economy	Most show revenues are captured locally through operating costs. Profits and payments to acts from outside Portland would likely leave the market.	Anticipate increased hotel bookings, and attendees are likely to link an event with local restaurant and/or bar expenditures, providing a net gain to economic activity in the city.
Live Nation uses radius clause language that makes it difficult for local operators to compete	Radius clause language is standard in the industry and is used by locals	Venue would attract acts that are not currently booking in Portland.

The following report outlines these findings in more detail and the methodologies used. The forecast presented in this analysis is intended to provide order-of-magnitude estimates of the likely economic impacts of a performance venue at this location, based on the best and most reasonable assumptions available at the time this analysis was completed. Broader questions regarding the extent to which the construction and operation of this facility impacts the broader entertainment venue market and live music industry in the City of Portland cannot be definitively addressed. Our review indicates that the venue will be unique in the market in terms of size and characteristics, minimizing the likely impact on other existing facilities. The live music industry is a significant contributor to the local and regional economy, and maintaining its vitality should be a key economic development concern for the City of Portland.

III. PROJECT DESCRIPTION

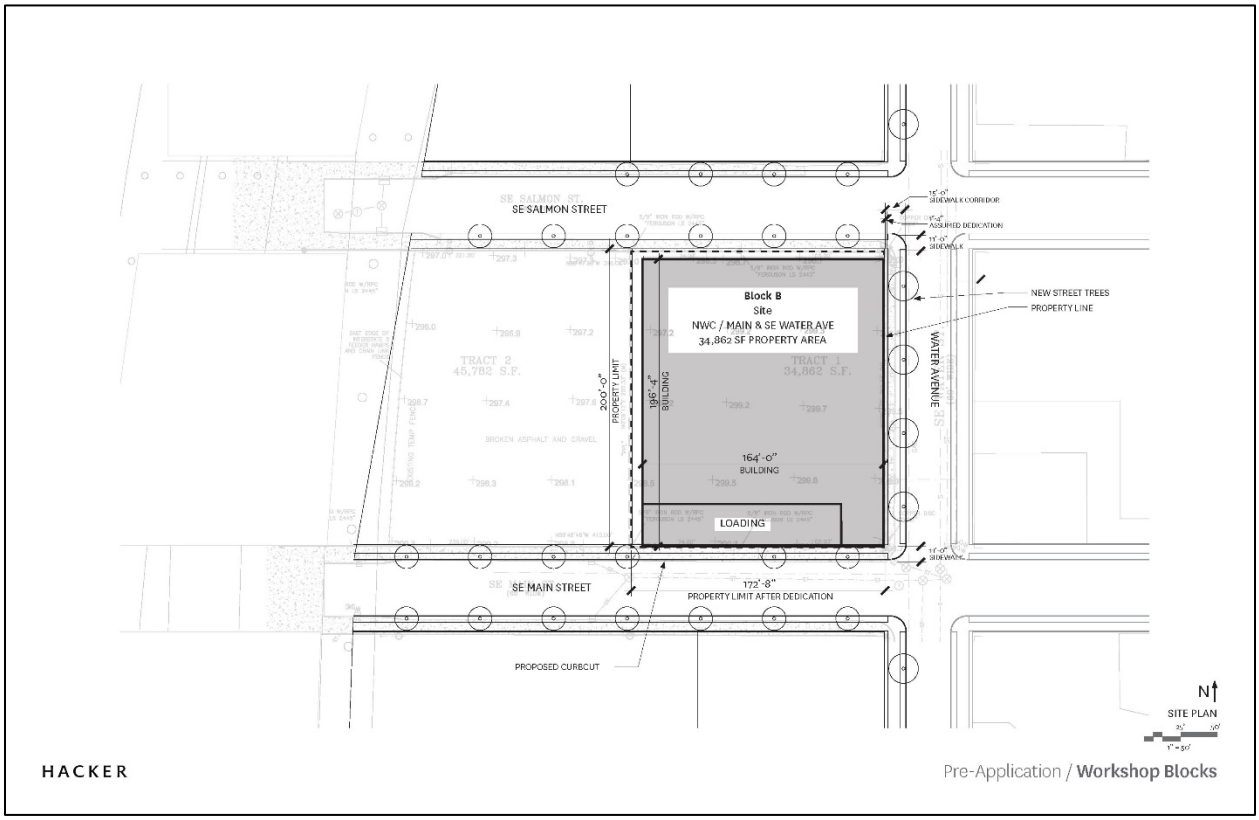
This analysis evaluates the economic impact profile of a new music venue on a site in Portland's Central Eastside. The proposed building is still in preliminary design phase and is expected to be approximately 59,000 square feet with a capacity of 3,750, of which approximately 2,000 would be on the standing general admission floor. The project would be on a block bound by SE Salmon to the north, SE Mill to the south, and SE Water Avenue to the east. The parcel is owned by Prosper Portland. Beam Development currently has exclusive development rights on the parcel as well as the two adjacent parcels to the north and south. The proposed facility would be leased and operated by Live Nation when completed. The company a dominant player in the industry in the United States and internationally.

SUBJECT SITE LOCATION

The Central Eastside saw a significant level of investment prior to the pandemic, including an extensive expansion of employment space. OMSI's master planned development to the south is expected to include further employment and residential uses in the district over the next decade. The pandemic has shifted office use patterns substantially, and the demand for office space is expected to be anemic over the next several years.

Access into and out of the area is generally good, but the area is bisected north/south by a Burlington Northern line that runs one block east of Water Avenue. The line is regularly used and sharply limits access and egress options when active. The scheduling of the trains is neither available nor controllable and presents a challenge for any development on these blocks. Access to the east is limited when blocked by the train, with the only outlet to the south being through the OMSI properties and out to McLoughlin Boulevard (Highway 99E) southbound. This route is typically blocked by back up traffic trying to go east.

PRELIMINARY SITE PLAN, SUBJECT SITE



Source: Hacker

Figure 3 summarizes the expected timeline for development of the site and venue. The project is anticipated to largely incur planning and design costs in 2023, with construction of the shell and tenant improvements in 2024 and 2025. Tenant improvements are a highly significant cost item for this type of facility, with all-in construction costs expected at approximately $800 per square foot.

FIGURE 3: ASSUMED DEVELOPMENT SCHEDULE, SUBJECT SITE

		YEAR SPENT		
		2023	2024	2025
CONSTRUCTION				
Core/Shell				
Hard Costs	$20,543,361		$10,271,681	$10,271,681
Soft Costs	$5,170,464	$1,551,139	$3,619,325	
Tenant Improvements				
Landlord	$1,760,880			$1,760,880
Tenant	$19,725,295			$19,725,295
Total Construction	$47,200,000	$1,551,139	$13,891,005	$31,757,856

Source: Beam Development, Live Nation, and Johnson Economics

* Excluding land cost.

The projected investment in the physical improvements for this venue is assumed to be close to $31.8 million in current dollars.

An inventory of venue space available in the area indicates a market opportunity for a live performance venue in the 3,000 to 4,500 capacity range. Existing facilities in this size range are publicly owned with fixed seating. Concert promoters interviewed indicated that many acts prefer significant general admission floor area in this size of facility. This cannot be accommodated in the Keller Auditorium and Arlene Schnitzer Concert Hall facilities. "The impact on Portland5 facilities will depend largely upon the configuration of the new venue. The more it has fixed seating the more overlap it will have with P5's facilities."[1] In addition, the facilities have limited availability and may not be available in viable time windows. Touring acts look for facilities that best match their ability to draw, which maximizes their ability to generate income from performances. Providing a facility in this size range would expand local offerings and likely result in an increase in overall bookings.

> *The Portland market is ready for a new venue with a 3,000 to 4,000-person capacity. A city the size of Portland should have this type of facility, and it is ready now. (Mike Quinn, Monqui Presents, 10/6/2022 interview)*

The proposed facility would appear to address a current gap in venues hosting live music events in the City of Portland. It does overlap in capacity with both the Arlene Schnitzer Concert Hall and Keller Auditorium, but these facilities are unable to accommodate acts requiring or desiring significant general admission standing room capacity.

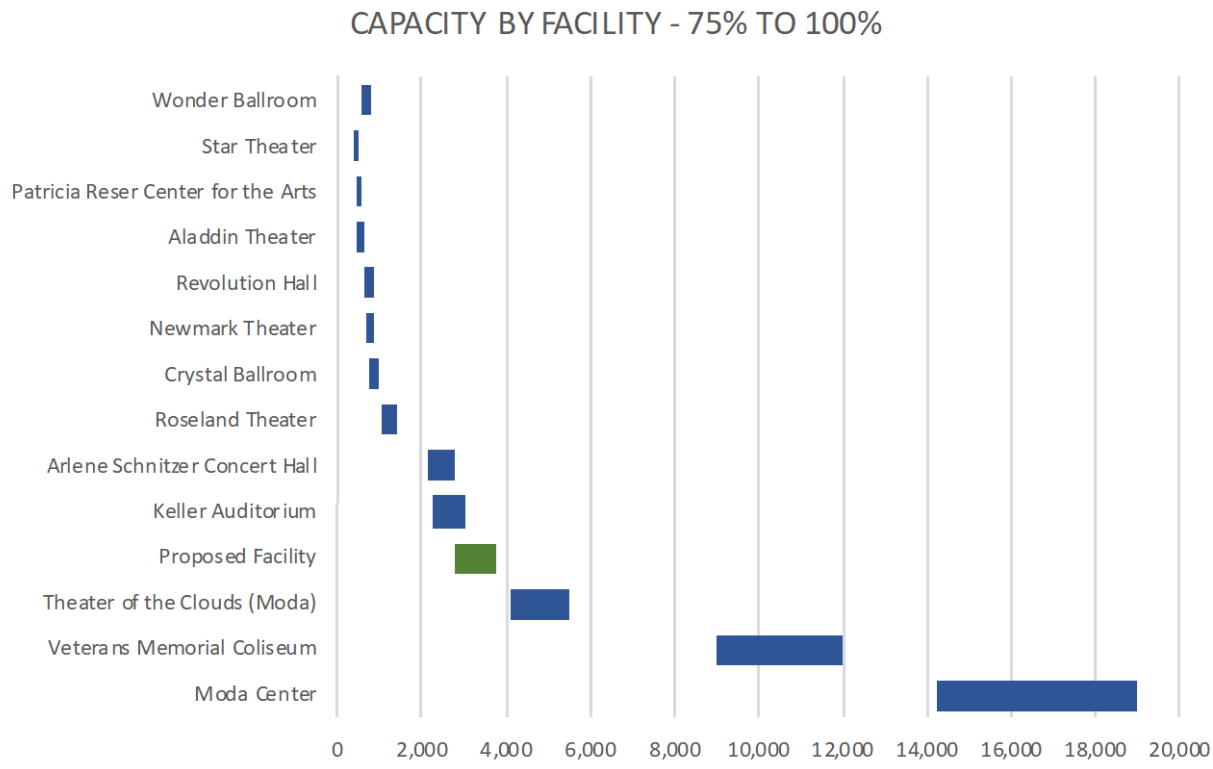
By addressing this market gap and expanding the range of facilities available in the market, the addition of the proposed new venue is expected to attract a greater number of artists to the market. Promoters interviewed as part of this analysis cited a desire for acts to grow within a market to larger venues, developing a following at smaller venues and then transitioning to mid-level spaces such as the one proposed. There have been changes in how music is consumed over the last few decades, with more online streaming and other platforms distributing content. Labels no longer make long term investments in careers, and so less need for 20k+ venues.[2]

1 Interview with Robyn Williams, Portland5, 11/21/2022

2 Interview with Chris Cobb, Concert Promoter and Venue Operator, 10/6/2022

OVERVIEW OF SELECTED LIVE MUSIC VENUES IN THE PORTLAND METRO AREA

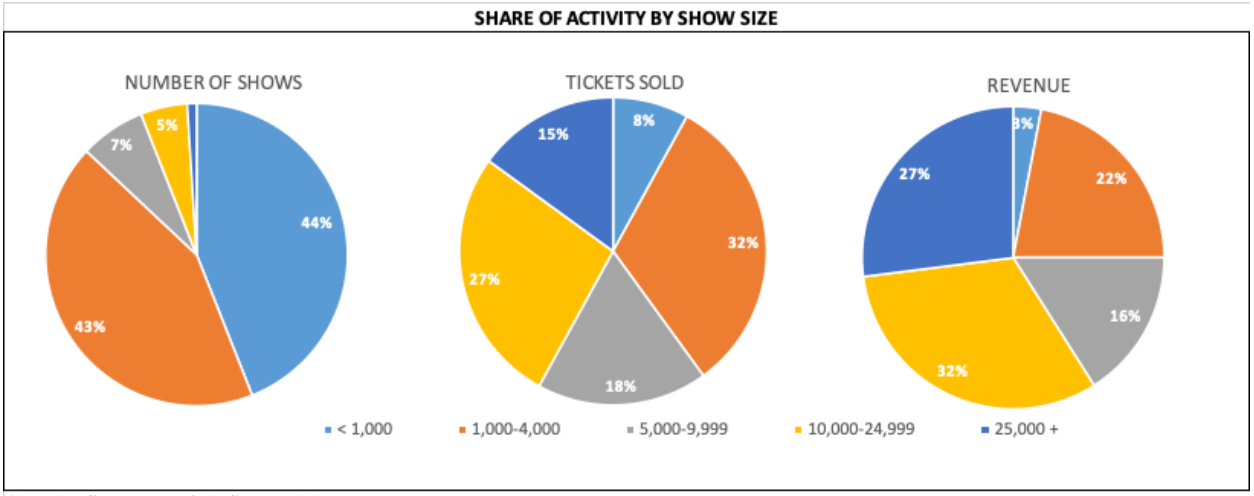
	Capacity	Owner	Operator	Year Built/ Renovated
Moda Center	19,000	Rip City Management	Rip City Management	1995
Veterans Memorial Coliseum	12,000	City of Portland	Rip City Management	1960
Theater of the Clouds (Moda)	5,500	Rip City Management	Rip City Management	1995
Proposed Facility	3,750	Beam Development	Live Nation	2024
Keller Auditorium	3,000	City of Portland	Portland'5	1917/1968
Arlene Schnitzer Concert Hall	2,800	City of Portland	Portland'5	1928/1984
Roseland Theater	1,410	Private	Double Tee Concerts	1922/1982
Crystal Ballroom	1,000	Private	McMenamins	1914/1997
Newmark Theater	880	City of Portland	Portland'5	1987
Revolution Hall	830	Private	True West	1924/2014
Aladdin Theater	620	Private	True West	1927/1991
Patricia Reser Center for the Arts	550	Foundation	Foundation	2022
Star Theater	500	Private	Private	1911/2011
Wonder Ballroom	778	Private	Private	1914/2004



SOURCE: Prosper Portland

National booking data indicates that roughly 43% of shows have between 1,000 and 4,000 attendees. This show size accounts for an estimated 32% of tickets sold and 22% of revenues nationwide. The proposed facility addresses a critical gap in the City's overall portfolio of venues, with limited overlap with existing facilities. A booking agent

interviewed said "This facility is really needed for acts that are too big for the Crystal Ballroom or Roseland, otherwise they can only come to Portland in the summer when outdoor concerts work."[3]



SOURCE: Pollstar, 12 Months Ending June 2022

Collecting data on the live music industry is challenging, as venues and operators are not well organized and not a reporting entity that produces reliable data for the whole spectrum of the industry. Pollstar is cited in this report as it is readily available, but feedback from local industry professionals indicates that it does not include a significant share of venues who do not report through their system.

MusicPortland provided data from NearHear, a free event calendar and music aggregator that coordinates local events in the Portland metro area. Data from 30 days of live performances in the Portland area was extrapolated to create an estimated annual average of individual ticket sales to audiences. The NearHear data covered 58 local venues, many of which are quite small.

Information from these estimates is summarized in the following tables:

OVERVIEW OF SELECTED LIVE MUSIC VENUES AND ESTIMATED ACTIVITY IN THE PORTLAND METRO AREA

OVERVIEW OF SELECTED LIVE MUSIC VENUES
PORTLAND METRO AREA

Venue Type	Venues	Shows per Year	Tickets @ 80%
Mixed Use	121	12,824	1,538,880
Dedicated	49	8,836	5,235,574
Total	170	21,660	6,774,454

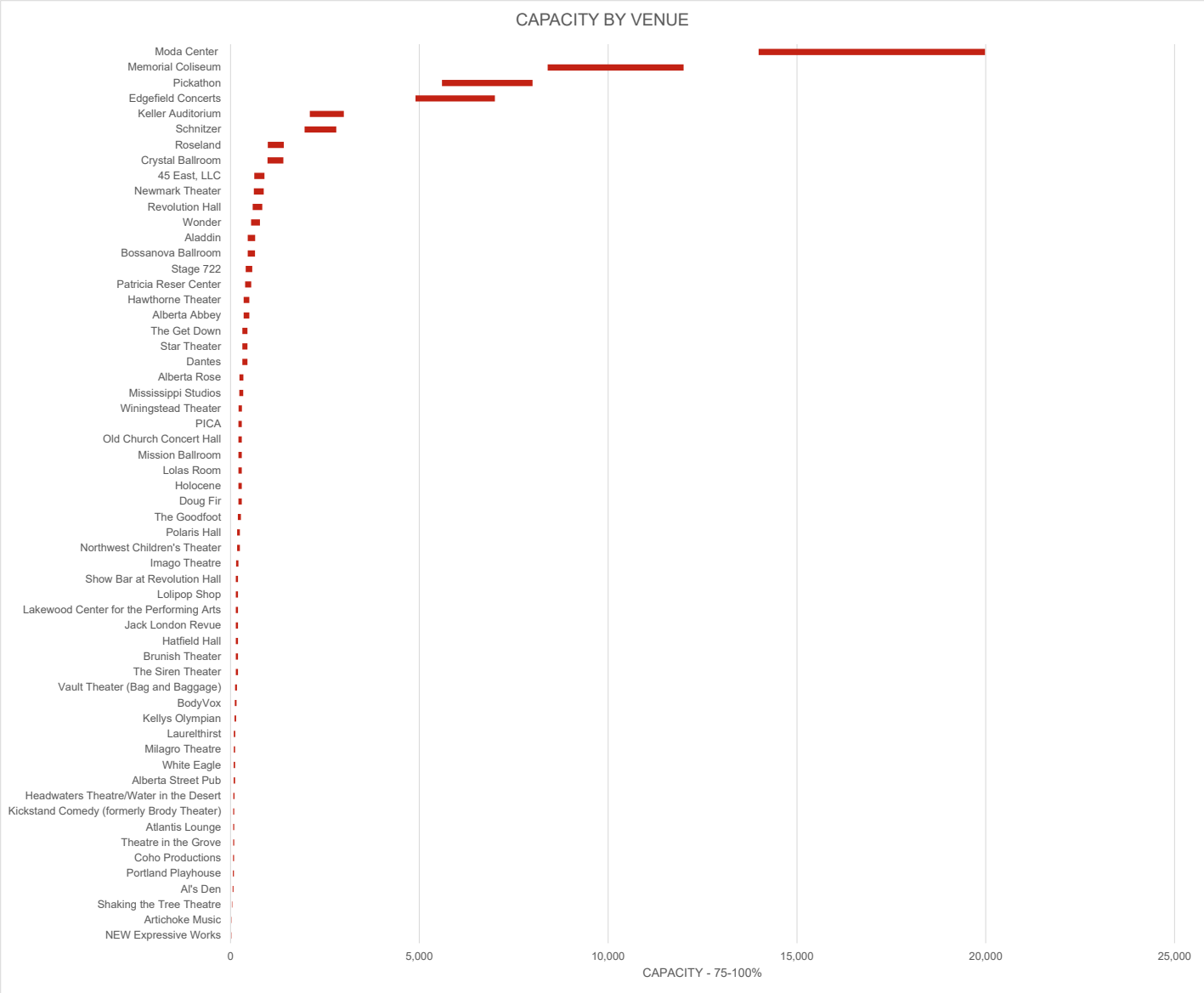
ESTIMATED VENUES, SHOWS, AND TICKETS BY CAPACITY

CAPACITY	VENUES	SHOWS		TICKETS	
		TOTAL	SHARE	TOTAL	SHARE
< 100	6	780	8.0%	28,400	0.5%
100-200	18	3,664	37.7%	373,060	7.0%
201-300	10	1,594	16.4%	327,514	6.2%
301-500	8	1,670	17.2%	535,760	10.1%
501-1,000	8	1,149	11.8%	625,352	11.8%
1,001-3,000	4	668	6.9%	1,123,488	21.2%
> 3,000	4	195	2.0%	2,291,200	43.2%
TOTAL	58	9,720	100.0%	5,304,774	100.0%

SOURCE: MusicPortland and NearHear

[3] Interview with Trey Many, Booking Agent, Wasserman, 5/12/2023.

OVERVIEW OF LOCAL LIVE MUSIC VENUES AND ESTIMATED CAPACITY



SOURCE: MusicPortland and NearHear

Later in this analysis we utilize Pollstar data to assess trends in the live music industry for the Portland area as well as several case study areas. Extrapolated annual data on overall booking activity collected by MusicPortland from NearHear data were over 8,836 shows in music venues per year, compared to 1,454 reported by Pollstar in 2019. This indicates that the Pollstar data may only report roughly 16.5% of the overall show volume in the Portland area. While useful for assessing broad industry trends in national peer cities, the Pollstar data will significantly overestimate Live Nation's share of the market as all Live Nation bookings are reported in this dataset.

Another data source is reported information from the Shuttered Venue Operators Grant (SVOG), which was set up by the Small Business Administration (SBA) to assist venue operators impacted by COVID-19 restrictions. These grants were limited to 45% of the reported, taxed, gross earned income of venues in 2019, and are capped out at $10.0

million. The awarded grants can therefore be used to estimate stated 2019 income from these venues. The grant program was not available for mixed-use venues in which ticketed events didn't constitute most of their gross earned revenues, publicly traded entities, and entities with over 500 full time equivalent employees. A total of 121 entities received these grants in the Portland metro area. Two entities (Portland's 5 and the Oregon Zoo) maxed out their grant amount, but the remainder were capped by gross income limits, receiving a total of $100.8 million. The data would imply that the gross earned income of venues receiving grants was $224 million in 2019, excluding Portland's 5 and the Oregon Zoo.

IV. ECONOMIC IMPACTS – LOCAL AND REGIONAL

The construction and ongoing business operations of the facility will have significant economic impacts to the local and regional economy. To model the economic impacts of various activities, Johnson Economics utilized the IMPLAN (IMPact for PLANning)[4] economic multiplier model. IMPLAN is an economic impact model designed for analyzing the effects of industry activity (employment, income, or business revenues) upon all other industries in an economic area.

A. IMPLAN MODELING METHODOLOGY

Social Accounting Matrices

Regional Social Accounting Matrices, or SAM, represent an IMPLAN extension for regional economic modeling. SAMs provide information on non-market financial flows. IMPLAN type inter-industry models provide information on market transactions between firms and consumers, and they capture payments of taxes by individuals and businesses, transfers of government funds to people and businesses, and transfer of funds from people to people.

IMPLAN Multipliers

Social Accounting Matrices are constructed to show the effects of a given change on the economy of interest. These are called Multiplier Models. Multiplier Models study the impacts of a user—specified change in the chosen economy for a given industry or industries. Because the Multiplier Models are built directly from the region-specific SAM, they will reflect the region's unique structure and trade situation.

Multiplier Models are the framework for construction impact analysis questions. Derived mathematically, these models estimate the magnitude and distribution of economic impacts, and measure three types of effects. These are the direct, indirect, and induced changes within the economy. The following is a brief definition of the three impact types:

> *Direct Impacts*: The actual change in activity affecting a local economy. For example, if a new industrial building is constructed, direct economic impacts represent the value-added output for that firm/user, as well as the jobs required by that business and the labor income paid.
>
> *Indirect Impacts*: Indirect impacts reflect the response of all other local businesses within the geographic area to the direct impact. Continuing the previous example, indirect impacts of a new institutional user would comprise revenues for related venders (e.g., real estate services, vendors, etc.), and the jobs and labor income thereby generated.

[4] Minnesota IMPLAN Group (MIG), Stillwater, Minnesota

Induced Impacts: These reflect the response of households within the geographic area affected by direct and indirect impacts. In the given example, induced impacts would be the increase in all categories of spending by households in the geography directly or indirectly employed by the businesses' activities.

Our analysis will evaluate the Jobs, Labor Income, and Value-Added Output of our estimated direct industry change and commodity change activities.

Glossary of Terms[5]

Value Added Output: The difference between an industry's or an establishment's total output and the cost of its intermediate inputs. It equals gross output (sales or receipts and other operating income, plus inventory change) minus intermediate inputs (consumption of goods and services purchased from other industries or imported). Value added consists of compensation of employees, taxes on production and imports less subsidies (formerly indirect business taxes and nontax payments), and gross operating surplus (formerly "other value added").

Labor Income: All forms of employment income, including Employee Compensation (wages and benefits) and Proprietor Income.

Industry: A group of establishments engaged in the same or similar types of economic activity.

Commodity: A commodity is a product or service. It may be produced by one or by many industries. Commodity output represents the total output of the product or service, regardless of the industry that produced it. If an industry and the commodity produced by the industry have the same name, the commodity is considered the primary product of that industry. Any other commodity produced by that industry is a secondary product of that industry.

Geographic Level

Impact analysis has varying degrees of geographic coverage. Specifically, vendors who provide goods and services in response to modeled impacts are in a range of locales. For this analysis, we focused on impacts retained in Multnomah County. That is, indirect and induced impacts which leak outside of the county are not included. The degree to which indirect and induced impacts are captured within the City of Portland will be a function of how well local businesses capitalize on the opportunities associated with the facilities.

B. Economic Impacts of Construction Activity

To evaluate the temporary construction impacts of the proposed development program, we calculated the *total* construction spending of the project measured as a direct industry change in construction of new nonresidential commercial structures. Estimated construction expenditures were converted into estimated contributions to employment income and output at the Multnomah County level.

- Construction spending would translate into an estimated 223 direct full time equivalent (FTE) jobs over the construction period (assumed to be two years for site and venue improvements). Direct jobs would pay an estimated average of over $99,600 per FTE for wages and benefits.

[5] From the United States Bureau of Economic Analysis (BEA)

- Because the development period is estimated to extend over multiple years, the direct construction jobs projected likely represent some of the same employees, employed throughout the project lifecycle over multiple buildings/phases.
- Each direct construction job would support approximately 0.84 indirect and induced jobs during the construction period. This translates into roughly 188 FTE jobs, with overall labor income of $12.9 million during the construction period.
- The total estimated economic impacts (direct, indirect, and induced) from the construction phase are over 411 FTE positions and $34.9 million in labor income (current dollars).

SUMMARY OF CONSTRUCTION IMPACTS

	PROJECTED IMPACTS, MULTNOMAH COUNTY (2022 $s)			
	Employment	Labor Income	Value Added	Output
CONSTRUCTION				
Direct Effect	223.2	$22,223,108	$24,362,494	$47,200,000
Indirect Effect	85.7	$6,794,541	$9,235,411	$15,188,829
Induced Effect	102.2	$5,891,334	$9,969,316	$15,746,275
Total Effect	411.2	$34,908,983	$43,567,221	$78,135,104

Source: IMPLAN, Johnson Economics

- The industries most significantly impacted during the construction period are summarized in the following table:

TOP TEN SECTOR IMPACTS, CONSTRUCTION OF VENUE

		PROJECTED IMPACTS, MULTNOMAH COUNTY (2022 $s)			
Sector	Description	Employment	Labor Income	Value Added	Output
36	Construction of other new nonresidential structures	223.2	$22,223,107	$24,362,494	$47,200,000
369	Architectural, engineering, and related services	24.5	$2,252,083	$2,275,614	$3,764,124
413	Food services and drinking places	16.2	$501,139	$648,943	$1,168,885
360	Real estate establishments	8.8	$162,435	$1,287,856	$1,679,894
382	Employment services	6.2	$294,085	$323,192	$380,136
397	Private hospitals	5.9	$560,481	$629,391	$1,143,827
394	Offices of physicians, dentists, and other health practitioners	5.9	$668,211	$682,955	$1,052,761
324	Retail Stores - Food and beverage	5.4	$205,529	$224,889	$322,921
319	Wholesale trade businesses	5.1	$554,374	$876,132	$1,195,095
367	Legal services	4.9	$547,379	$713,814	$981,650

Source: IMPLAN, Johnson Economics

- Impacts specific to the City of Portland will be dependent upon the percentage of impacts captured. While Portland firms can address most of the needs and demand associated with construction a significant percentage of economic activity generated is expected to be captured by firms and/or employees living outside of Portland with any level of certainty. The following table summarizes the level of impact associated with a range of assumed capture rates:

SUMMARY OF CONSTRUCTION IMPACTS UNDER ALTERNATIVE CAPTURE SCENARIOS

Assumed City Capture Rate	PROJECTED IMPACTS, CITY OF PORTLAND (2022 $s)			
	Employment	Labor Income	Value Added	Output
CONSTRUCTION				
10%	41.1	$3,490,898	$4,356,722	$7,813,510
20%	82.2	$6,981,797	$8,713,444	$15,627,021
35%	143.9	$12,218,144	$15,248,527	$27,347,286
50%	205.6	$17,454,491	$21,783,610	$39,067,552
65%	267.3	$22,690,839	$28,318,694	$50,787,818

Source: IMPLAN, Johnson Economics

C. Economic Impacts of On-going Operating Activity

The ongoing operation of the facility is expected to contribute to the local and regional economy, supporting an incremental gain in employment and payroll. As with construction impacts, direct employment, payroll, and expenditures at the facility will support indirect and induced activity.

At stabilization the facility is assumed to host 126 events per year. Of these, 81 would be concerts promoted by Live Nation, 20 would be concerts promoted by a different entity, and 25 would be special events such as weddings or meetings.

Projected Event Attendance at Stabilization

	# of Events	Average Attendance	Total Attendance	Comments
Concerts	81	2,013	163,053	Promoted by Live Nation
Special Events	25	200	5,000	Weddings, Meetings, Etc.
Rentals	20	1,730	34,600	Concerts
Total	126	1,608	202,653	

SOURCE: Live Nation

Live Nation anticipates that roughly 70% of all event attendees will live in Portland, with 30% living outside of the city. Roughly 5% of total attendees are assumed to stay overnight due to show attendance. Our analysis utilizes these attendance expectations in estimating ongoing impacts. Stabilization of the facility is assumed to be 2029, with the facility opening in 2025.

When stabilized, the facility is expected to support a total of 42 full time equivalent positions within Multnomah County, with estimated annual payroll in current dollars of over $2.2 million. The total supportable employment would be 71.6 full time equivalent positions, with annual payroll of $3.7 million.

Projected Ongoing Impacts of Facility at Stabilization, Multnomah County

	PROJECTED IMPACTS, MULTNOMAH COUNTY (2022 $s)			
	Employment	Labor Income	Value Added	Output
ONGOING - ANNUAL				
Direct Effect	42.0	$2,218,136	$4,568,977	$7,070,714
Indirect Effect	15.9	$858,906	$1,156,321	$1,754,299
Induced Effect	13.7	$633,421	$1,071,649	$1,692,785
Total Effect	71.6	$3,710,462	$6,796,947	$10,517,798

Source: IMPLAN, Johnson Economics

Attendees at events are expected to generate an increase in demand for overnight lodging. Live Nation estimated that 5% of event attendees will stay overnight with friends, of which a projected 80% will stay in hotels. Assuming two persons per room, at stabilization overnight stays associated with attendees would be estimated to exceed 5,000 room nights per year. Overnight stays would also generate additional expenditure outside of the venue, such as restaurant/bars expenditures.

At the county level, overnight stays are expected to support a total of 8.3 full time equivalent positions and payroll of $414,300 at stabilization.

PROJECTED ONGOING IMPACTS OF TOURISM IMPACTS AT STABILIZATION, MULTNOMAH COUNTY

	PROJECTED IMPACTS, MULTNOMAH COUNTY (2022 $s)			
	Employment	Labor Income	Value Added	Output
ONGOING - VISITORS				
Direct Effect	5.4	$220,833	$368,821	$758,500
Indirect Effect	1.7	$124,930	$183,332	$299,486
Induced Effect	1.2	$68,500	$115,965	$183,133
Total Effect	8.3	$414,263	$668,118	$1,241,119

Source: IMPLAN, Johnson Economics

The degree to which the impacts are captured within the City of Portland are a function of the assumed capture rate. If 80% of employees at the facility and 95% of overnight stays are located within the City of Portland, the venue's ongoing operation would support a total of 65.1 full time positions and close to $3.4 million in payroll within the City of Portland.

PROJECTED ONGOING IMPACTS AT STABILIZATION, CITY OF PORTLAND AT ALTERNATIVE CAPTURE RATES

Assumed City	PROJECTED IMPACTS, CITY OF PORTLAND (2022 $s)			
Capture Rate	Employment	Labor Income	Value Added	Output
ONGOING - OPERATIONS				
40%	28.6	$1,484,185	$2,718,779	$4,207,119
60%	42.9	$2,226,277	$4,078,168	$6,310,679
80%	57.3	$2,968,370	$5,437,558	$8,414,238
90%	64.4	$3,339,416	$6,117,252	$9,466,018
ONGOING - VISITORS				
20%	1.7	$82,853	$133,624	$248,224
40%	3.3	$165,705	$267,247	$496,448
60%	5.0	$248,558	$400,871	$744,671
80%	6.6	$331,411	$534,494	$992,895
95%	7.8	$393,550	$634,712	$1,179,063
OVERALL ONGOING	**65.1**	**$3,361,920**	**$6,072,269**	**$9,593,301**

It is important to note that a significant level of economic activity captured at the venue will represent a redistribution of activity that would have occurred within the City of Portland. Visitors to a show at the venue could have spent the time and money on another activity within the City, and the impacts shown represent a gross as opposed to net impact for the City. While we expect that the facility will increase the overall market for shows, expanding the local venue options and attracting a broader range of offerings, it will also result in a shift in the allocation of local expenditure.

While only a small proportion of visitors will be coming from outside of the metro area, The City of Portland represents roughly 26% of the population in the broader metropolitan area, and a significant share of attendees at shows in the City are likely to come from other jurisdictions in the metro area. Attendees are likely to link an event with local restaurant and/or bar expenditures, providing a net gain to economic activity in the City of Portland.

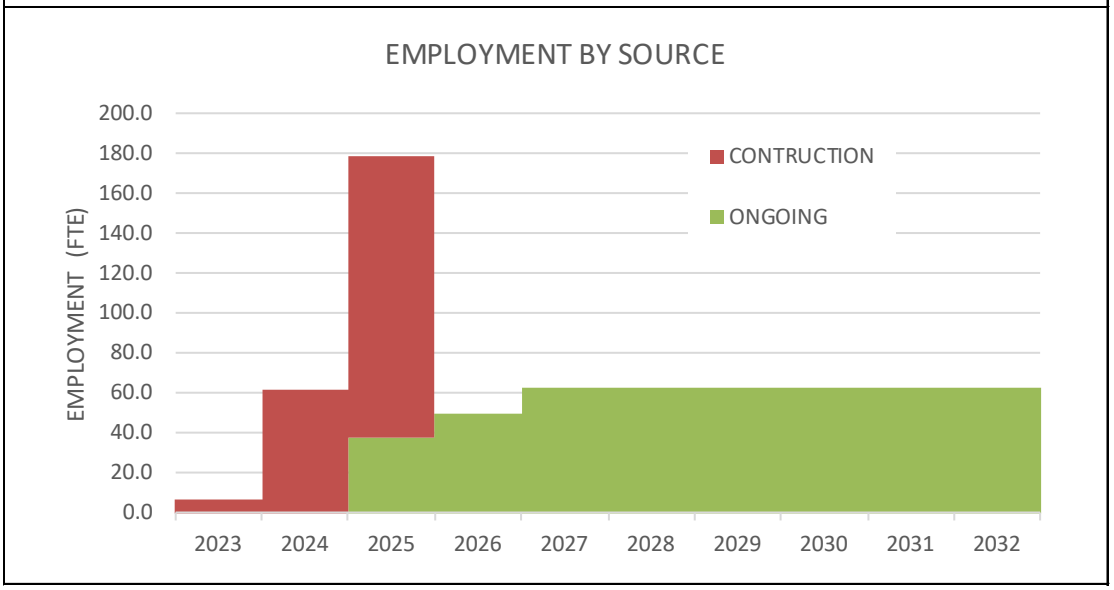
D. COMBINED ECONOMIC IMPACTS (CONSTRUCTION AND OPERATIONS)

Construction and ongoing operation of the venue is expected to support a significant level of employment, payroll, and output. A total of 143.9 full time equivalent positions are expected to be supported in the City of Portland from

construction of the facility, while operations of the facility is expected to increase employment levels in the City by 62.4 positions per year. This assumes that the City captures 35% of construction impacts, 80% of operational employment and spending, and 95% of overnight stay impacts.

SUMMARY OF CONSOLIDATED IMPACTS, CITY OF PORTLAND

	PROJECTED IMPACTS, CITY OF PORTLAND (2022 $s)			
	Employment	Labor Income	Value Added	Output
CONTRUCTION				
Direct Effect	78.1	$7,778,088	$8,526,873	$16,520,000
Indirect Effect	30.0	$2,378,089	$3,232,394	$5,316,090
Induced Effect	35.8	$2,061,967	$3,489,261	$5,511,196
Total Effect	143.9	$12,218,144	$15,248,527	$27,347,286
ONGOING				
Direct Effect	38.7	$1,984,300	$4,005,561	$6,377,146
Indirect Effect	12.7	$687,124	$925,056	$1,403,439
Induced Effect	11.0	$506,737	$857,319	$1,354,228
Total Effect	62.4	$3,178,161	$5,787,937	$9,134,813



Construction and operation of the facility will also impact the local entertainment venue industry. The Portland metro area has a limited supportable event volume, and introduction of this facility into the competitive environment is expected to impact the distribution and volume of music bookings in the area. The net impact of the facility to the region is a function of the extent to which the new venue can increase the number of bookings by attracting unique acts and/or expanding the marketing reach to attract more out of area visitors. For the City of Portland, net impacts would also include the impact of increasing performance and visitor share from outside of the City proper. The physical characteristics of the venue vary substantively from other available venues, which should reduce the level of impact and support an increase in overall event volume attracted to the region.

V. FISCAL IMPACT

In addition to economic impacts, development and operation of the venue would have fiscal implications for the City of Portland, Multnomah County, other local service providers, and the State of Oregon. These impacts include property taxes, income and business taxes, and development charges and fees.

A. PROPERTY TAX IMPACTS

When fully developed and operational, annual property tax revenue from the property is expected to be roughly $577,900 in current dollars. Of these, an estimated $221,400 would be collected by the City of Portland, including bonds, pensions, and urban renewal revenues. The remainder of the revenues would accrue to Portland Public Schools, Multnomah County, and a variety of smaller taxing entities.

The improvements to the property are expected to be placed on the tax rolls in 2026. The estimated RMV was escalated annually at 3% in our calculations.

PROPERTY TAX BREAKOUT

Estimated RMV	$50,000,000
Change Property Ratio	0.43
Estimated AV	$21,642,348
Property Taxes	
City of Portland	$90,859
City of Portland Local Option	$26,027
Portland Fire/Police Pension	$54,158
Urban Renewal-Portland	$42,670
City of Portland Bonds	$7,668
Other	$356,519
Annual Tax Revenue	
Overall	$577,901
City of Portland (GF, Bonds, Pensions, UR)	$221,382

B. TRANSIENT LODGING TAX IMPACTS

Event induced overnight stays are expected to result in over 5,000 room nights per year by 2029, with an average room rate of $178 yielding over $900,000 in annual room rate revenues for local hotels. This activity would generate an estimated $103,700 in annual transient lodging taxes, as summarized in Figure 14 to the right.

The largest share of the transient lodging taxes is dedicated to Multnomah County's Convention Center Phase II bond, followed by the City of Portland's General Fund and Travel Portland.

The average room rate was escalated in the projections at an average annual rate of 3%.

TRANSIENT LODGINGS TAXES

	2029
Projected Overnight Stays	5,066
Average Room Rate	$178
Annual Revenue	$901,748
City of Portland Transient Lodgings Tax	
General Fund	$45,087
Travel Portland	$9,017
Multnomah County Transient Lodgings Tax	
Convention Center Phase II	$47,116
Hotel Operators	$2,480
Portland Tourism Improvement District	$0
Total Projected Tax Revenues	$103,700

C. ADDITIONAL TAX IMPACTS (OTHER THAN PROPERTY TAX)

The ongoing operation of the venue will generate additional tax contributions to a range of entities. The federal government will gain a considerable level of annual revenue, primarily through income taxes and social security contributions. State and local governments will derive revenue from fees and taxes, most notably the State of Oregon's income tax. Figure 15 presents an estimate of other ongoing tax contributions, such as income and business

taxes, from the projects construction and operations based on the modeling assumptions in the IMPLAN scenarios. Estimates are broken down by federal, vs. state and local contributions.

SUMMARY OF MISCELLANEOUS TAX CONTRIBUTIONS FROM OPERATIONS

Description	Employee & Proprietor Compensation	Tax on Production and Imports	Households	Corporations	Total
FEDERAL					
Social Ins Tax- Employee Contribution	$496,544				$496,544
Social Ins Tax- Employer Contribution	$555,697				$555,697
Tax on Production and Imports: Excise Taxes		$30,791			$30,791
Tax on Production and Imports: Custom Duty		$12,208			$12,208
Tax on Production and Imports: Fed NonTaxes		$3,498			$3,498
Corporate Profits Tax				$561,866	$561,866
Personal Tax: Income Tax			$474,422		$474,422
Total Federal Tax	$1,052,240	$46,497	$474,422	$561,866	$2,135,025
STATE AND LOCAL					
Dividends				$3,636	$3,636
Social Ins Tax- Employee Contribution	$10,303				$10,303
Social Ins Tax- Employer Contribution	$20,258				$20,258
Tax on Production and Imports: Sales Tax		$48,895			$48,895
Tax on Production and Imports: Motor Vehicle Lic		$8,083			$8,083
Tax on Production and Imports: Severance Tax		$531			$531
Tax on Production and Imports: S/L NonTaxes		$4,015			$4,015
Corporate Profits Tax				$42,564	$42,564
Personal Tax: Income Tax			$283,058		$283,058
Personal Tax: NonTaxes (Fines- Fees			$65,997		$65,997
Personal Tax: Motor Vehicle License			$18,749		$18,749
Personal Tax: Property Taxes			$3,529		$3,529
Personal Tax: Other Tax (Fish/Hunt)			$8,346		$8,346
Total State and Local Tax	$30,561	$61,525	$379,679	$46,200	$517,965

The project would be subject to the State of Oregon's Corporate Activities Tax, which is estimated to yield over $41,000 per year when the facility is stabilized in 2029.

CORPORATE ACTIVITY TAX

	2029
Total Gross Income	$7,614,386
Labor/Input Deduction Assumption	$0
Base Deduction	($1,000,000)
Taxable Commercial Activity	$7,281,868
Rate	0.00570
Estimated Tax	$41,507

D. CONSTRUCTION PERIOD IMPACTS

The development will also contribute significantly to tax revenues during the construction period. The following table presents an estimate of revenue generated from the new development based on the IMPlan scenario. The project will also be charged development fees and system development charges (SDCs). SDCs are one-time charges which occur at the time of development. These fees are meant to off-set the impact of the new development on current city systems such as streets, parks, and the water and sewer system. The fees are used for capital improvements to expand these systems or reimburse the city for prior expansions that benefit the new development. As a result, the impact of these fees is assumed to be neutral.

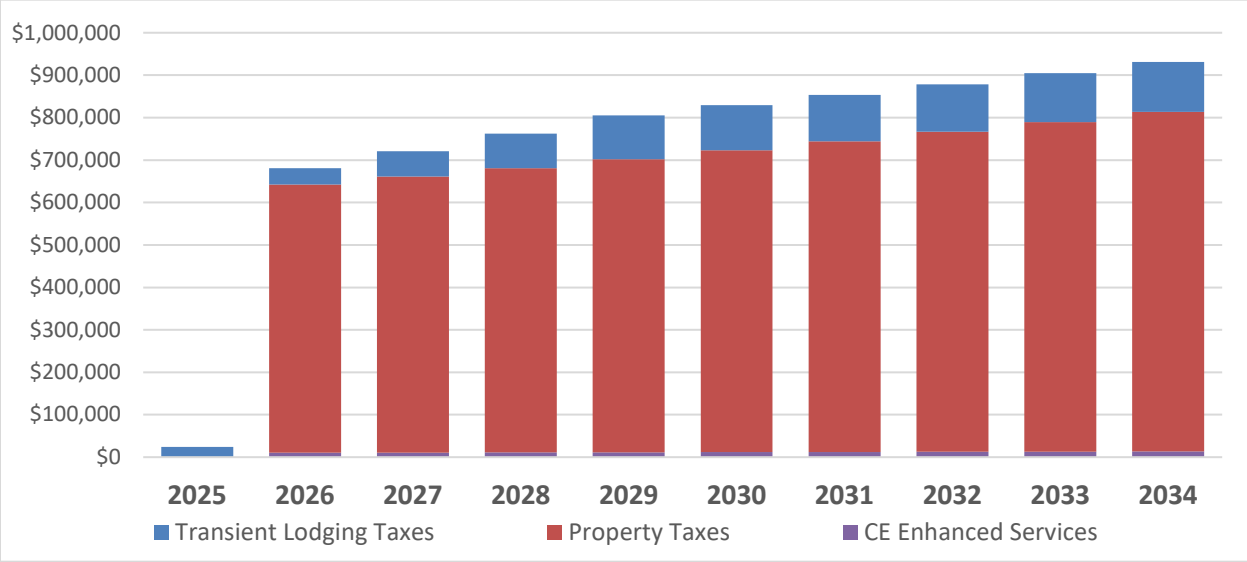
SUMMARY OF FISCAL IMPACTS OF CONSTRUCTION

Description	Employee & Proprietor Compensation	Tax on Production and Imports	Households	Corporations	Total
FEDERAL					
Social Ins Tax- Employee Contribution	$0				$0
Social Ins Tax- Employer Contribution	$0				$0
Tax on Production and Imports: Excise Taxes		$116,638			$116,638
Tax on Production and Imports: Custom Duty		$46,241			$46,241
Tax on Production and Imports: Fed NonTaxes		$13,252			$13,252
Corporate Profits Tax				$495,183	$495,183
Personal Tax: Income Tax			$1,520,296		$1,520,296
Total Federal Tax	$0	$176,131	$1,520,296	$495,183	$2,191,610
STATE AND LOCAL					
Dividends	$0			$3,204	$3,204
Social Ins Tax- Employee Contribution	$34,980				$34,980
Social Ins Tax- Employer Contribution	$68,775				$68,775
Tax on Production and Imports: Sales Tax		$185,216			$185,216
Tax on Production and Imports: Property Tax		$613,190			$613,190
Tax on Production and Imports: Motor Vehicle Lic		$30,621			$30,621
Tax on Production and Imports: Severance Tax		$2,012			$2,012
Tax on Production and Imports: Other Taxes		$110,600			$110,600
Tax on Production and Imports: S/L NonTaxes		$15,209			$15,209
Corporate Profits Tax				$37,512	$37,512
Personal Tax: Income Tax			$907,068		$907,068
Personal Tax: NonTaxes (Fines- Fees			$211,489		$211,489
Personal Tax: Motor Vehicle License			$60,079		$60,079
Personal Tax: Property Taxes			$11,311		$11,311
Personal Tax: Other Tax (Fish/Hunt)			$26,747		$26,747
Total State and Local Tax	$103,755	$956,848	$1,216,695	$40,717	$2,318,015

E. SUMMARY OF TAX REVENUES

Property taxes represent the largest ongoing tax revenue stream to local jurisdictions, followed by transient lodging taxes.

PROJECTED TAX REVENUES BY TYPE, OPERATIONS



The following table summarizes projected annual tax revenues by type.

FIGURE 19: PROJECTED TAX REVENUES BY TYPE, OPERATIONS

	YEAR									
	2025	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**
TRANSIENT LODGING TAXES										
Projected Overnight Stays	1,013	2,026	3,040	4,053	5,066	5,066	5,066	5,066	5,066	5,066
Average Room Rate	$162	$166	$170	$174	$178	$183	$187	$192	$197	$202
Annual Revenue	$164,138	$336,382	$516,732	$705,187	$901,748	$927,078	$947,342	$972,672	$998,002	$1,023,332
City of Portland Transient Lodgings Tax										
General Fund	$8,207	$16,819	$25,837	$35,259	$45,087	$46,354	$47,367	$48,634	$49,900	$51,167
Travel Portland	$1,641	$3,364	$5,167	$7,052	$9,017	$9,271	$9,473	$9,727	$9,980	$10,233
Multnomah County Transient Lodgings Tax										
Convention Center Phase II	$8,576	$17,576	$26,999	$36,846	$47,116	$48,440	$49,499	$50,822	$52,146	$53,469
Hotel Operators	$451	$925	$1,421	$1,939	$2,480	$2,549	$2,605	$2,675	$2,745	$2,814
Portland Tourism Improvement District	$4,924									
Projected Transient Lodging Revenues	$23,799	$38,684	$59,424	$81,096	$103,700	$106,614	$108,944	$111,858	$114,771	$117,683
PROPERTY TAXES ON IMPROVEMENTS										
Overall		$631,488	$650,432	$669,945	$690,043	$710,745	$732,067	$754,029	$776,650	$799,949
City of Portland (GF, Bonds, Pensions, UR)		$241,910	$249,167	$256,642	$264,341	$272,272	$280,440	$288,853	$297,519	$306,444
Central Eastside Enhanced Services District		$10,642	$10,961	$11,290	$11,629	$11,978	$12,337	$12,707	$13,088	$13,481
COMMERCIAL ACTIVITIES TAX										
Total Gross Income		$7,070,714	$7,247,482	$7,428,669	$7,614,386	$7,804,746	$7,999,864	$8,199,861	$8,404,857	$8,614,979
Labor/Input Deduction Assumption		0.175	0.175	0.175	0.175	0.175	0.175	0.175	0.175	0.175
Base Deduction		($1,000,000)	($1,000,000)	($1,000,000)	($1,000,000)	($1,000,000)	($1,000,000)	($1,000,000)	($1,000,000)	($1,000,000)
Taxable Commercial Activity		$6,833,339	$6,979,173	$7,128,652	$7,281,868	$7,438,915	$7,599,888	$7,764,885	$7,934,007	$8,107,358
Rate		0.0057	0.0057	0.0057	0.0057	0.0057	0.0057	0.0057	0.0057	0.0057
Estimated Tax		$38,950	$39,781	$40,633	$41,507	$42,402	$43,319	$44,260	$45,224	$46,212
CONSTRUCTION PERIOD										
Federal-Construction	$72,023	$644,993	$1,474,594	$0	$0	$0	$0	$0	$0	$0
State-Construction	$37,078	$332,051	$759,141	$0	$0	$0	$0	$0	$0	$0
Local-Construction	$39,099	$350,143	$800,503	$0	$0	$0	$0	$0	$0	$0

VI. CASE STUDIES

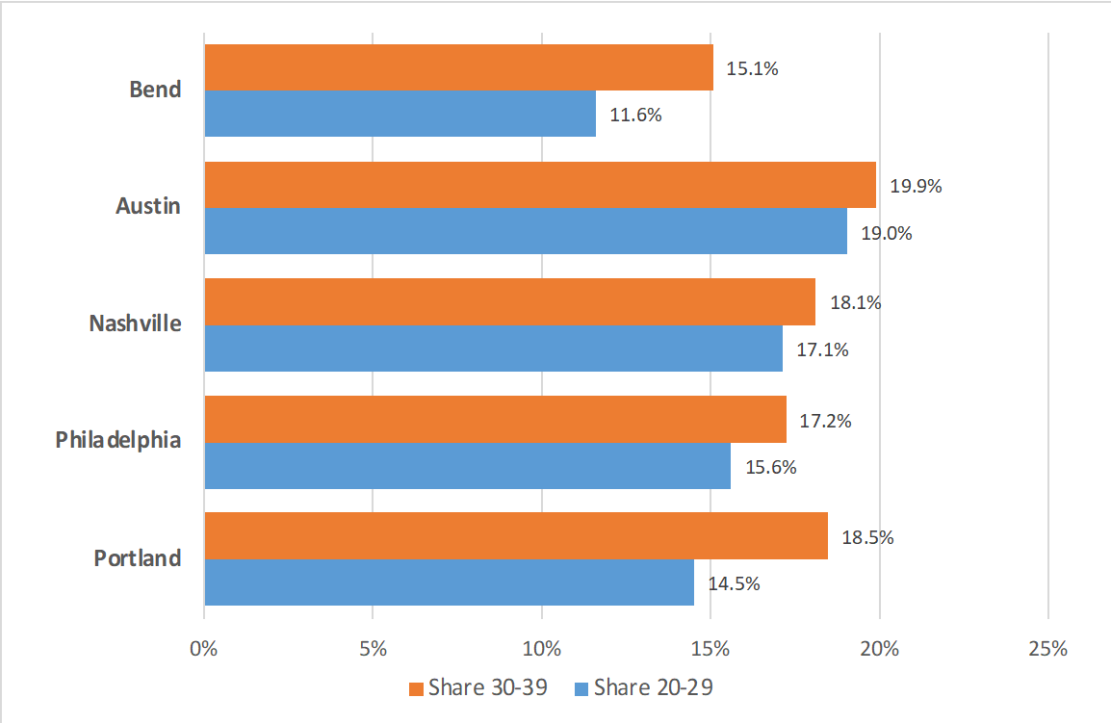
The assumed tenant for the facility is Live Nation, the nation's largest events promoter and venue operator. The company owns or has an equity interest in over 680 performance venues across the country. In addition, they have exclusive booking rights for facilities they do not own or have an equity interest in. To better understand the impact of Live Nation within markets, we have looked at the entertainment market in several cities in which they are active. Cities evaluated in this study included Austin Texas, Bend Oregon, Nashville Tennessee, and Philadelphia Pennsylvania.

Demographic

The most important aspect of a live event, besides the performer and venue, are the people who attend it. Although the average age of concertgoers is typically dependent on things such as genre, recent surveys indicate millennials account for most of the attendance at live music events. This is most likely due to millennials coming into their prime spending ages during a time where concert ticket sales have been noted to be increasing more than ever. The nature of the music industry has shifted with the expansion of music streaming, and live performance and touring revenues have taken on an increased importance for musical acts.

The following graph shows the percentage of population that fall in the 20-29 and 30-39 age group in the case study cities as well as Portland.

SHARE OF POPULATION BY KEY DEMOGRAPHICS, 2021



Source: ACS 5-Year Estimates, JOHNSON ECONOMICS

Show Booking Trends

The number of show bookings in the case study markets has rebounded following the pandemic, with 2022 booking volume equivalent to 2019 activity. This study utilizes Pollstar data to report trends in these markets. We understand that this data set represents only a small proportion of overall live music booking activity, but it is the only source available to us that compiles this information in each of the study areas.

While Austin and Nashville are viewed as two of the most active live act markets in the country, the number of show bookings in the Portland metro area have exceeded Austin and approached Nashville numbers. As outlined in the following data from Pollstar, shows promoted by Live Nation have represented roughly 10% of total bookings since 2018. The share of bookings accounted for by Live Nation during this period was 37% in Austin and 25% in Nashville. Live Nation accounted for 48% of reported booking activity in Philadelphia. The level of booking activity in Bend is much more limited, and Live Nation accounted for much of the tracked booking due to their operation of the Hayden Homes Amphitheater. The market share for each of these markets is skewed using Pollstar data, which tracks only a share of venues and acts (but all Live Nation's facilities).

SHOW BOOKED BY MARKET, LIVE NATION AND OVERALL MARKET

	2019		2020		2021		2022	
	Shows	% of Mkt.	Shows	% of Mkt.	Shows	% of Mkt.	Shows	% of Mkt.
PORTLAND, OR								
Owned/Operated	11		0		8		16	
Exclusively Booked	0		0		0		0	
Third Party Venue	114		13		39		164	
LN Total	125	8.6%	13	5.0%	47	13.1%	180	12.2%
Non-LN Total	1,329	91.4%	248	95.0%	311	86.9%	1,292	87.8%
Market Total	1,454	100.0%	261	100.0%	358	100.0%	1,472	100.0%
BEND, OR								
Owned/Operated	2		0		26		53	
Exclusively Booked	0		0		0		0	
Third Party Venue	5		1		1		6	
LN Total	7	13.2%	1	10.0%	27	62.8%	59	69.4%
Non-LN Total	46	86.8%	9	90.0%	16	37.2%	26	30.6%
Market Total	53	100.0%	10	100.0%	43	100.0%	85	100.0%
PHILADELPHIA, PA								
Owned/Operated	961		300		568		1,083	
Exclusively Booked	0		0		0		0	
Third Party Venue	150		33		38		67	
LN Total	1,111	43.1%	333	61.1%	606	56.8%	1,150	46.7%
Non-LN Total	1,466	56.9%	212	38.9%	460	43.2%	1,310	53.3%
Market Total	2,577	100.0%	545	100.0%	1,066	100.0%	2,460	100.0%
AUSTIN, TX								
Owned/Operated	217		39		86		243	
Exclusively Booked	0		0		0		0	
Third Party Venue	179		41		53		155	
LN Total	396	38.7%	80	35.9%	139	33.1%	398	36.1%
Non-LN Total	627	61.3%	143	64.1%	281	66.9%	705	63.9%
Market Total	1,023	100.0%	223	100.0%	420	100.0%	1,103	100.0%
NASHVILLE, TN								
Owned/Operated	24		2		141		206	
Exclusively Booked	0		0		0		0	
Third Party Venue	215		47		94		260	
LN Total	239	16.4%	49	14.5%	235	30.9%	466	32.3%
Non-LN Total	1,217	83.6%	288	85.5%	526	69.1%	975	67.7%
Market Total	1,456	100.0%	337	100.0%	761	100.0%	1,441	100.0%
ALL MARKETS								
Owned/Operated	1,215		341		829		1,601	
Exclusively Booked	0		0		0		0	
Third Party Venue	663		135		225		652	
LN Total	1,878	28.6%	476	34.6%	1,054	39.8%	2,253	34.3%
Non-LN Total	4,685	71.4%	900	65.4%	1,594	60.2%	4,308	65.7%
Market Total	6,563	100.0%	1,376	100.0%	2,648	100.0%	6,561	100.0%

SOURCE: Pollstar

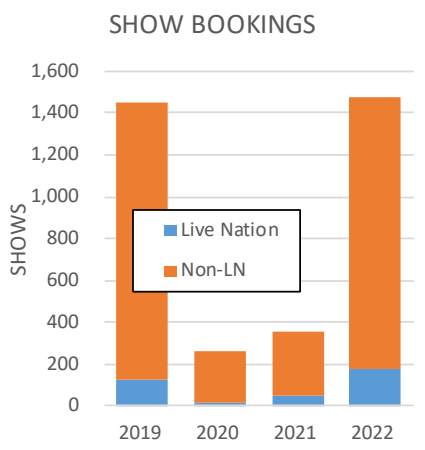
It is important to note that the Pollstar data does not include a significant portion of bookings, as not all venues report through this system. This is particularly true for small venues, but even larger groups such as AEG do not report through Pollstar. As a result, Live Nation's indicated market share will be significantly overstated.

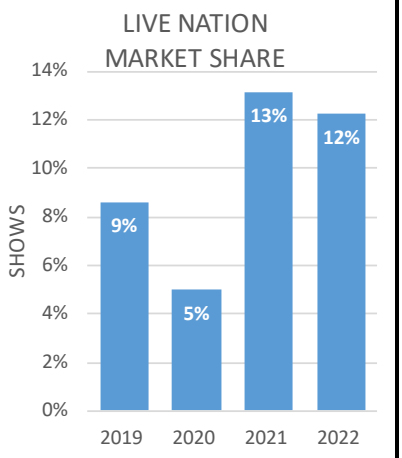
Portland Market Profile

The Portland metro area is a mid-sized market with a thriving live music and club scene. The demographic profile of the market is less favorable than other markets evaluated, with the key targeted populations representing roughly one third of the total population in Multnomah County. This is significantly lower than either Austin (39%) or Nashville (35%), and comparable to Philadelphia.

The overall level of reported bookings in the market has rebounded to 2019 levels following sharp declines during the pandemic. Live Nation has had a relatively low market share of bookings in the market, estimated at 12% in 2022. Live Nation promoted shows have largely been booked at third party venues. Pollstar's definition for the Portland metro area extends north to Ridgefield and includes the RV Inn Style Resorts Amphitheater which is operated by Live Nation.

PORTLAND, OR	
Population (2021)	
20-29	117,539
30-39	149,646
Total	810,242
Show Bookings (Pollstar)	
2022	1,472
Booking/1,000 Population	
20-29	12.52
30-39	9.84
Total	1.82





	2019		2020		2021		2022	
	Shows	% of Mkt.	Shows	% of Mkt.	Shows	% of Mkt.	Shows	% of Mkt.
Owned/Operated	11		0		8		16	
Exclusively Booked	0		0		0		0	
Third Party Venue	114		13		39		164	
LN Total	125	8.6%	13	5.0%	47	13.1%	180	12.2%
Non-LN Total	1,329	91.4%	248	95.0%	311	86.9%	1,292	87.8%
Market Total	1,454	100.0%	261	100.0%	358	100.0%	1,472	100.0%

SOURCE: Pollstar

"Portland has a world class music scene. The current scene is characterized by a large number of non-corporate venue owners and promoters. The local industry has more venues than Austin, with more than 10,000 unique acts and 30,000 people employed in the industry. It is estimated that the industry generates over $1.5 billion in economic activity. The local reputation of the music scene and reality on the ground supports economic development activity."[6]

[6] Interview with Meara McLoughlin, MusicPortland, 11/22/2022

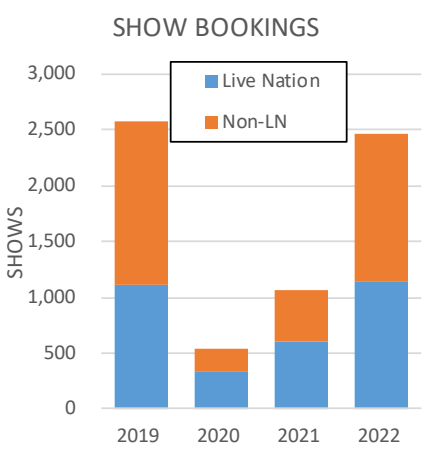
Data on local booking activity was estimated by MusicPortland from NearHear data and summarized in Chapter III. This data indicated a much larger level of activity than Pollstar, with an estimated 8,836 shows in dedicated music facilities and the total estimated shows per year exceeding 21,600. An estimated 91.1% of shows were in venues with a capacity of less than 1,000, accounting for 35.6% of ticket sales.

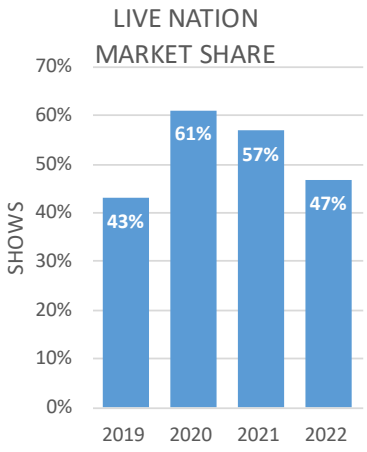
The volume of shows derived from the NearHear data indicates that the Pollstar data represents only 16.5% of the overall show volume. As Live Nation reports all bookings through Pollstar, this would reduce their indicated share of the local market to 2.1% in 2021, and 1.9% in 2022.

PHILADELPHIA MARKET PROFILE

The Philadelphia market is significantly larger than the Portland metro area, but the demographic composition is similar. Live Nation has had a significant profile in this market, operating multiple venues with a market share of bookings ranging from 43% to 61% over the last several years. Within the Philadelphia market, Live Nation operates some well-known and historic performance spaces such as the TD Pavilion at the Mann, The Met Philadelphia, and the Theatre of Living Arts.

PHILADELPHIA, PA	
Population (2021)	
20-29	245,773
30-39	271,420
Total	1,576,251
Show Bookings (Pollstar)	
2022	2,460
Booking/1,000 Population	
20-29	10.01
30-39	9.06
Total	1.56





	2019		2020		2021		2022	
	Shows	% of Mkt.	Shows	% of Mkt.	Shows	% of Mkt.	Shows	% of Mkt.
Owned/Operated	961		300		568		1,083	
Exclusively Booked	0		0		0		0	
Third Party Venue	150		33		38		67	
LN Total	1,111	43.1%	333	61.1%	606	56.8%	1,150	46.7%
Non-LN Total	1,466	56.9%	212	38.9%	460	43.2%	1,310	53.3%
Market Total	2,577	100.0%	545	100.0%	1,066	100.0%	2,460	100.0%

SOURCE: Pollstar

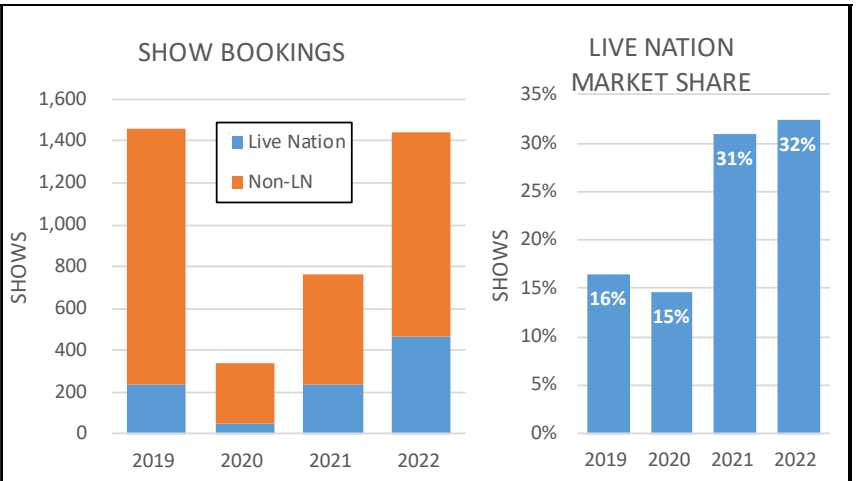
As with Portland, our expectation is that the overall market is significantly larger than that reflected in the Pollstar data.

NASHVILLE MARKET PROFILE

The Nashville market is similar in scale to Portland, with a demographic that is somewhat younger. The area has a highly established live music scene, boasting one of the highest music venues per capita in the country. Live Nation has been increasingly active in the Nashville market, with its share of overall booking growing to almost a third in 2022.

Live Nation has exclusive booking rights for venues with capacities ranging from 200 to 15,000 attendees in this market, including the Ascend amphitheater, Municipal Auditorium, and Marathon Music Works. Live Nation also has exclusive booking rights for Fontanel, a small amphitheater outside of town. This provides the firm with an ability to market to a range of performers at profitable venue sizes. The geographic range of available facilities also allows for package offerings, in which Live Nation can provide appropriate venues in a sequence of markets which facilitates profitable touring. Live Nation also controls booking for a range of music festivals, such as the Bonnaroo Festival in nearby Manchester, Tennessee. Live Nation will package multiple festival opportunities to acts, which can preclude them from playing local venues for extended periods.[7]

NASHVILLE, TN	
Population (2021)	
20-29	120,520
30-39	127,426
Total	703,953
Show Bookings (Pollstar)	
2022	1,441
Booking/1,000 Population	
20-29	11.96
30-39	11.31
Total	2.05



	2019		2020		2021		2022	
	Shows	% of Mkt.	Shows	% of Mkt.	Shows	% of Mkt.	Shows	% of Mkt.
Owned/Operated	24		2		141		206	
Exclusively Booked	0		0		0		0	
Third Party Venue	215		47		94		260	
LN Total	239	16.4%	49	14.5%	235	30.9%	466	32.3%
Non-LN Total	1,217	83.6%	288	85.5%	526	69.1%	975	67.7%
Market Total	1,456	100.0%	337	100.0%	761	100.0%	1,441	100.0%

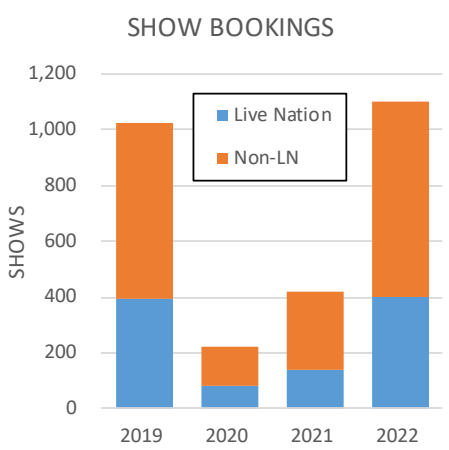
SOURCE: Pollstar

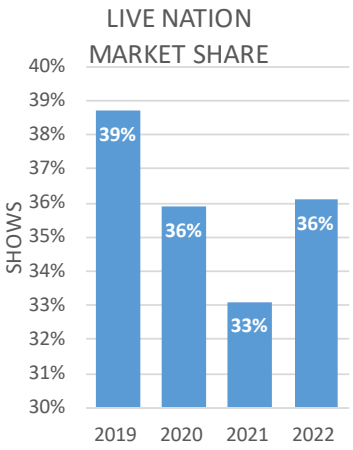
[7] Interview with Chris Cobb, Concert Promoter and Venue Operator, 10/6/2022

AUSTIN MARKET PROFILE

The Austin Market has been among the fastest growing metro areas in the country over the last decade. The area has a strong live music scene, with supportive demographics as well as being home to the University of Texas. Live Nation has been a consistent player in this market, accounting for over a third of all reported bookings.

AUSTIN, TX	
Population (2021)	
20-29	183,364
30-39	191,803
Total	964,000
Show Bookings (Pollstar)	
2022	1,103
Booking/1,000 Population	
20-29	6.02
30-39	5.75
Total	1.14





	2019		2020		2021		2022	
	Shows	% of Mkt.	Shows	% of Mkt.	Shows	% of Mkt.	Shows	% of Mkt.
Owned/Operated	217		39		86		243	
Exclusively Booked	0		0		0		0	
Third Party Venue	179		41		53		155	
LN Total	396	38.7%	80	35.9%	139	33.1%	398	36.1%
Non-LN Total	627	61.3%	143	64.1%	281	66.9%	705	63.9%
Market Total	1,023	100.0%	223	100.0%	420	100.0%	1,103	100.0%

SOURCE: Pollstar

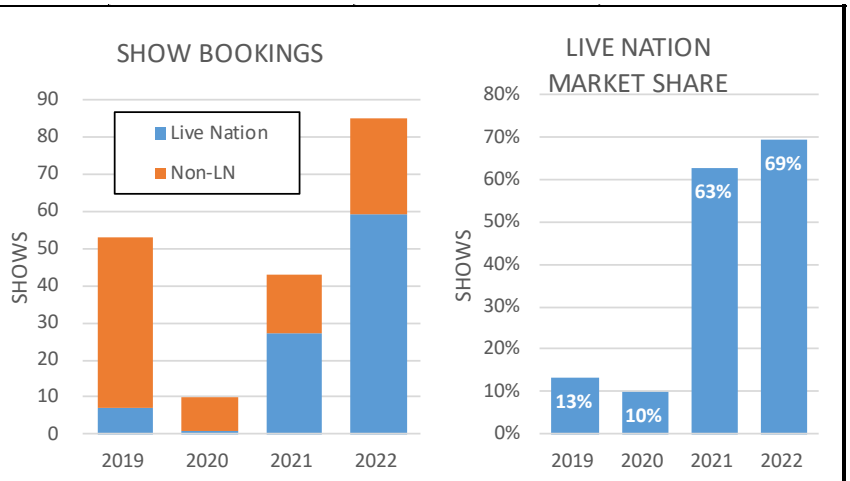
Live Nation's market share has ranged from 33% to 39% over the last four years in this market.

BEND MARKET PROFILE

The Bend market is significantly different from the other case studies, most notably in scale. Due to their limited scale, concert events are often a regional draw that support tourism and weekend trips. Portland is the primary market, and attendees link the show to a trip to Bend. Live Nation has a very high percentage of the reported bookings, which is attributable to the Hayden Homes Amphitheater (the largest venue in Oregon).

The amphitheater was previously booked by Monqui and drew roughly 11 largely local shows per year. Live Nation took over, paid for upgrades, and expanded the booking volume. They have maintained an open booking policy at the facility and retained most of the management team from the previous operator.[8] The increased volume of shows allowed them to sustain consistent stage crews.

BEND, OR	
Population (2021)	
20-29	11,829
30-39	15,367
Total	102,079
Show Bookings (Pollstar)	
2022	85
Booking/1,000 Population	
20-29	7.19
30-39	5.53
Total	0.83



	2019		2020		2021		2022	
	Shows	% of Mkt.	Shows	% of Mkt.	Shows	% of Mkt.	Shows	% of Mkt.
Owned/Operated	2		0		26		53	
Exclusively Booked	0		0		0		0	
Third Party Venue	5		1		1		6	
LN Total	7	13.2%	1	10.0%	27	62.8%	59	69.4%
Non-LN Total	46	86.8%	9	90.0%	16	37.2%	26	30.6%
Market Total	53	100.0%	10	100.0%	43	100.0%	85	100.0%

SOURCE: Pollstar

TOURISM IMPACTS

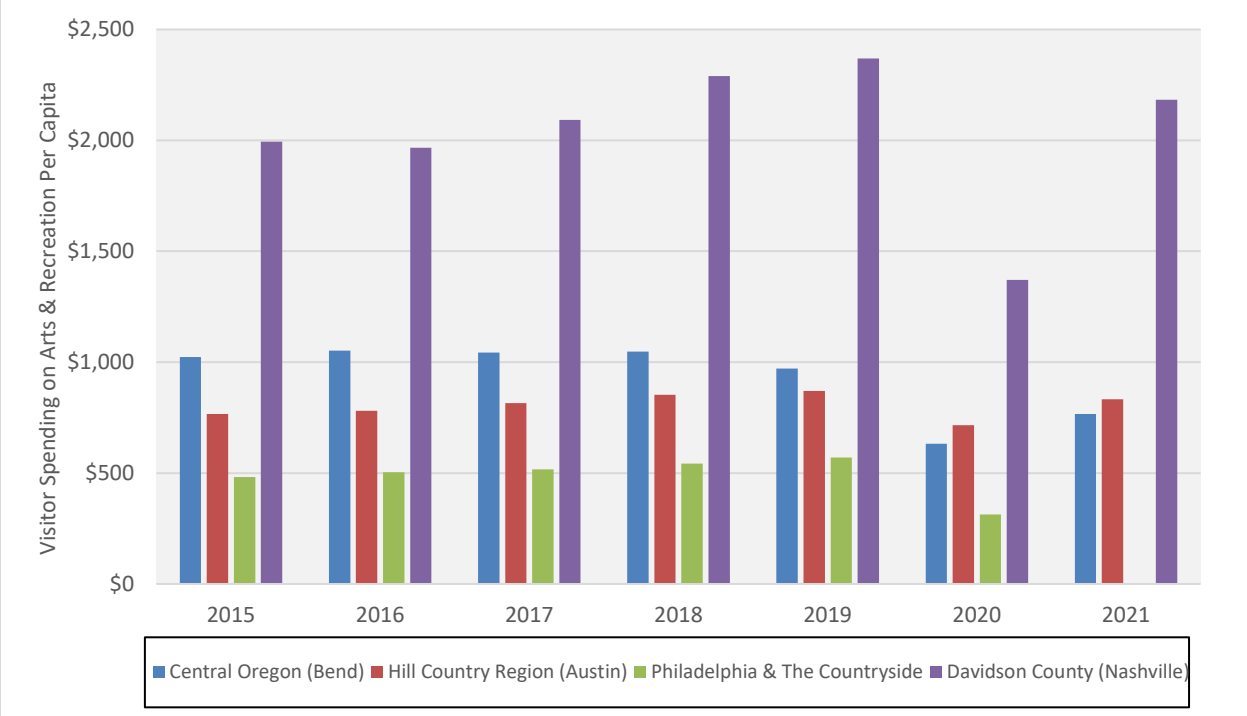
Live events are also a big factor in visitor spending. The following figure depicts visitors spending on arts & recreation commodities, a category which live performance tickets fall under. The data on visitor spending is provided by region as the closest approximation, while the closest approximation to data on Nashville is provided at the county-level. Furthermore, data on Philadelphia's region is only available up until 2020.

[8] Interview with Marney Smith, Director, Hayden Homes Amphitheater, 5/16/2023.

The geography that has the highest spending on arts & recreation commodities out of all the observed geographies is Davidson County which houses Nashville. This is consistent with expectations, as Nashville is one of the largest live music destinations in the world. Moreover, Davidson County displayed the strongest recovery post-COVID in terms of spending on arts & recreation commodities by visitors, recording a sizable increase of roughly 62% from 2020 to 2021. Comparatively, Central Oregon, where Bend is, sees the least amount of spending under the same category from all the regions, although this is because overall visitor spending is also much lower in general when compared to the other regions. Proportionally, visitors spending on arts & recreation commodities in Central Oregon is comparable to the other listed regions.

Of the four case study cities, live music plays a mayor role in destination tourism in Nashville and Austin. Tourism also plays a major role in Bend's economy, but it is more related to outdoor activities and its natural setting. Philadelphia is a major metro area with a robust and diverse economy. While arts & recreation spending plays a significant role, it is not as pronounced as it is in the other cities.

PER CAPITA VISITOR SPENDING ON ARTS & RECREATION COMMODITIES (2015 – 2021)



Source: Dean Runyan Associates, Tourism Economics, JOHNSON ECONOMICS

In terms of COVID's impacts in this category of visitor spending, the Philadelphia & Countryside region saw the largest negative shock with a decrease of roughly 45% from 2019 to 2020. However, since visitor spending data from 2021 in the region is still unavailable, it is hard to tell how the region has rebounded since. The region that was the least impacted by the COVID downturn is the Hill Country region where Austin is located. From 2019 to 2020, visitor spending on arts & recreations in the Hill Country region decreased roughly 19%, which was still quite sizable, but nowhere near as pronounced as some of the other regions. However, recovery in terms of arts & recreation spending in the Hill Country region was also the mildest, with only a 16% increase from 2020 to 2021. Comparatively, arts & recreation spending in Central Oregon decreased by roughly 37% from 2019 to 2020 and rebounded by roughly 27%

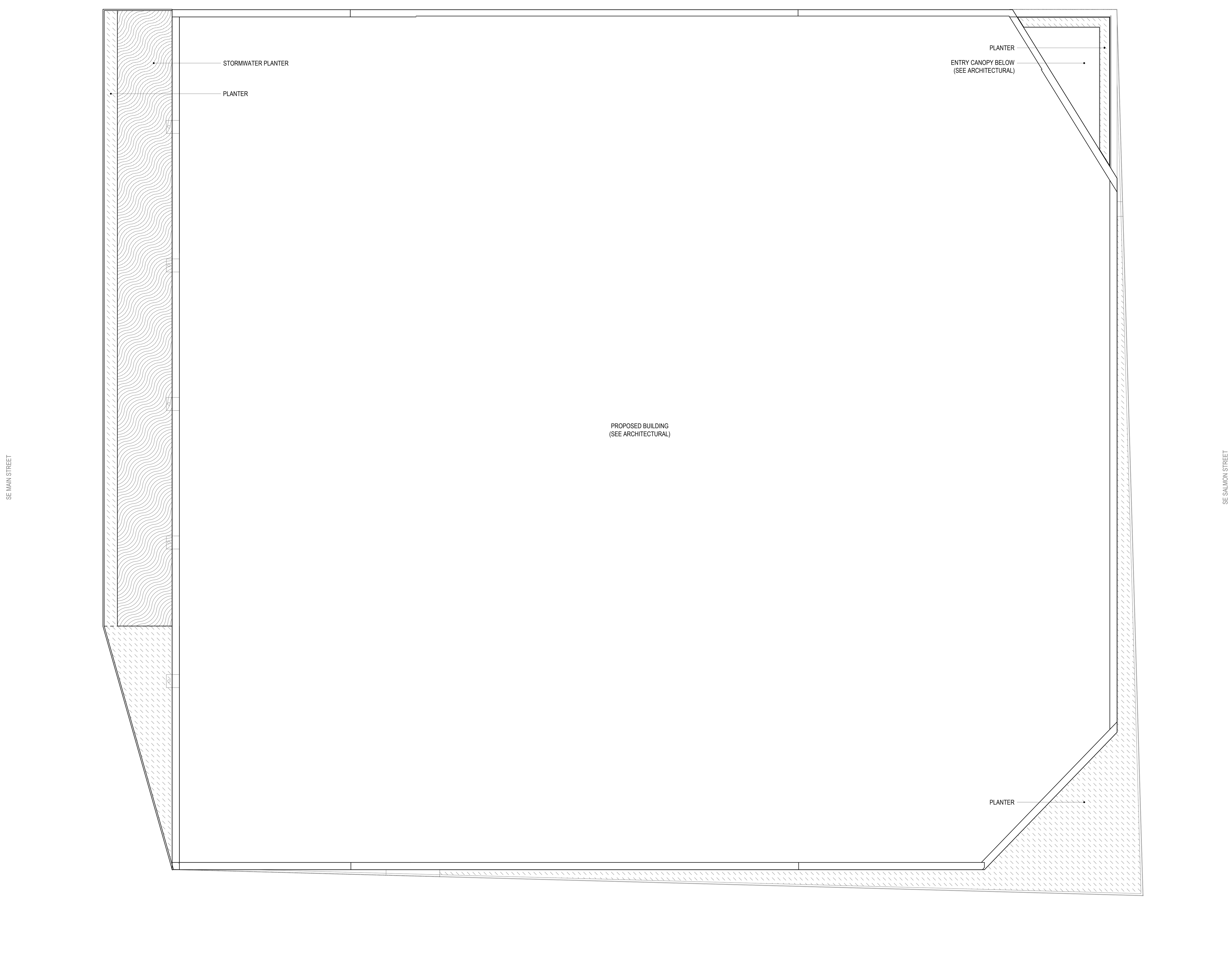
from 2020 to 2021.Variations in the impact of the pandemic on event spending was significantly impacted by the regulatory responses of various states and jurisdictions. Event limitations were significantly less restrictive in Texas and Tennessee during the pandemic.

CENTRAL EASTSIDE VENUE

NWC/MAIN & SE WATER AVE
PORTLAND, OR 97214

ARCHITECT
LEVER
4713 N. Albina Avenue,
4th Floor Portland, OR 97217
T. 503.928.6040
www.leverarchitecture.com

SHAPIRO DIDWAY
1204 SE Water Ave
Portland, Oregon 97214
+1 503 232 0520
www.shapirodidway.com



PLANTING SCHEDULE - LEVEL 02

STORMWATER PLANTING		
RIBES CEREUM / WAX CURRANT	5 GAL	10% @ 36" oc
- NW NATIVE		
- ATTRACTS BIRDS + HUMMING BIRDS + BUTTERFLIES + POLLINATORS		
- BERRIES ARE FAVORITE AMONG BIRDS		
SALIX PURPUREA 'NANA' / DWARF PURPLE OSIER WILLOW	5 GAL	10% @ 30" oc
- ATTRACTS BUTTERFILES + HUMMING BIRDS		
DESCHAMPSIA CESPITOSA / TUFTED HAIR GRASS	1 GAL	15% @ 12" oc
- NW NATIVE / EVERGREEN		
- HERBACEOUS		
- ATTRACTS SONGBIRDS		
JUNCUS EFFUSUS PACIFICUS `QUARTZ CREEK` / QUARTZ CREEK PACIFIC RUSH	1 GAL	50% @ 12" oc
SEDUM OREGANUM / OREGON SEDUM	1 GAL	5% @ 12" oc
- NW NATIVE / EVERGREEN		
- GROUNDCOVER		
- ATTRACTS BUTTERFLIES + POLLINATORS		
SPIRAEA BETULIFOLIA `TOR GOLD` / GLOW GIRL® BIRCHLEAF SPIREA	5 GAL	5% @ 30" oc
- NW NATIVE		
- ATTRACTS BUTTERFLIES		
- EROSION CONTROL		
SYMPHYOTRICHUM SUBSPICATUM / DOUGLAS' ASTER	1 GAL	5% @ 12" oc
- NW NATIVE		
- HERBACEOUS		
- ATTRACTS POLLINATORS		
- SUPPORTS CONSERVATION		
- BIOLOGICAL CONTROL		
VINE PLANTING AREA		
CAREX DENSA / DENSE SEDGE	1 GAL	10% @ 12" oc
- NW NATIVE		
- CATERPILLAR HOST PLANT		
DESCHAMPSIA CESPITOSA / TUFTED HAIR GRASS	1 GAL	10% @ 12" oc
- NW NATIVE / EVERGREEN		
- HERBACEOUS		
- ATTRACTS SONGBIRDS		
HYDRANGEA INTEGRIFOLIA `TAIPING SHAN` / EVERGREEN CLIMBING HYDRANGEA	1 GAL	20% @ 60" oc
- ATTRACTS POLLINATORS, BUTTERFLIES, AND HUMMINGBIRDS		
JUNCUS EFFUSUS PACIFICUS `QUARTZ CREEK` / QUARTZ CREEK PACIFIC RUSH	1 GAL	60% @ 12" oc

NOTES

1. STORMWATER PLANTINGS HAVE BEEN SELECTED FROM THE CITY OF PORTLAND STORMWATER MANUAL AND ARE EXPECTED TO FARE WELL IN THE PROPOSED STORMWATER FACILITY AND CONDITIONS THEY ARE APPROVED FOR.

01 PLANTING PLAN - LEVEL 02

0 10 20 30 feet
SCALE: 1" = 10'

STAMP

NOT FOR CONSTRUCTION

REVISIONS

PHASE
DESIGN DEVELOPMENT

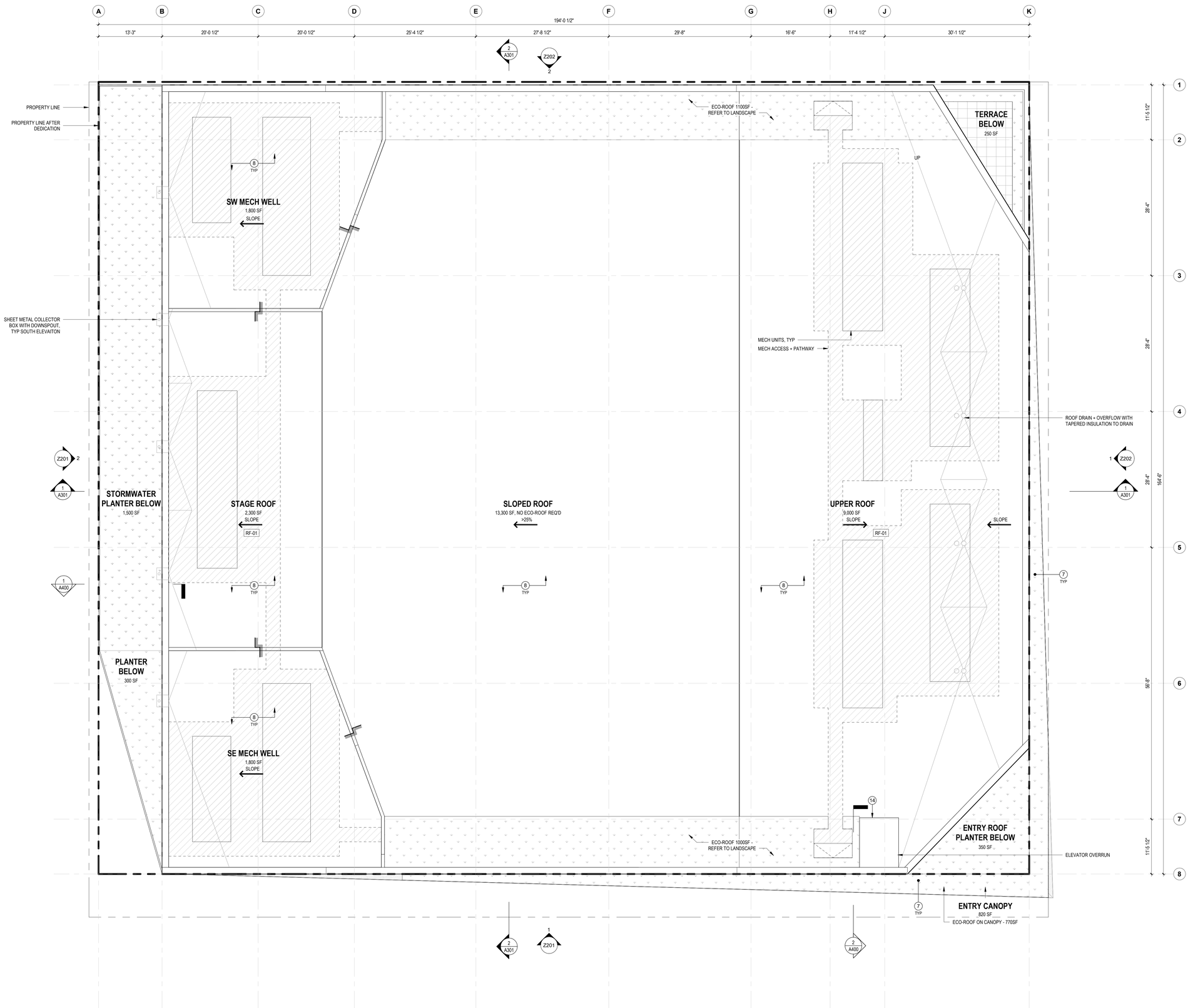
DATE
FEBRUARY 01, 2024

PROJECT NUMBER
271

SCALE
AS INDICATED

SHEET TITLE
PLANTING PLAN - LEVEL 02

L202



PLAN KEYNOTES

1 ELECTRICAL TRANSFORMER
2 PLATFORM LIFT
3 INSPECTION VAULT
4 GREASE INTERCEPTOR
5 OVERHEAD ROLL-UP DOOR
6 LINE OF CANOPY ABOVE
7 CLIMBING VINE PLANTER
8 ROOFING MEMBRANE COMPLIANT WITH COOL ROOF REQUIREMENTS
9 (11) LONG-TERM, ALTERNATIVE VERTICAL BIKE PARKING SPACES WITHIN ENCLOSURE
10 LINE OF OPENING ABOVE
11 LINE OF LEVEL ABOVE
12 12'-0"H FIRE RATED OVERHEAD COILING DOOR WITH MOTOR OPERATOR
13 12'-0"H POCKETED FOLDING PARTITION W/ EGRESS DOOR
14 ELEVATOR OVERRUN
15 INTERIOR GLAZING
16 DRINK RAIL
17 PORTABLE BAR
18 STAGE CURTAINS

ECO-ROOF AREA

ROOF AREA WHERE ECO-ROOF IS REQUIRED:
1,800 + 2,300 + 1,800 + 1,500 + 300
+ 9,000 + 350 + 250 + 820 = 18,120 SF

40% DEDUCTION ALLOWED FOR MECH & OTHER:
7,248 SF (APPROX SHOWN IS IN EXCESS)

60% REQUIRED ECO-ROOF:
10,872 SF

ECO-ROOF PROVIDED:
1,100 + 1,000 + 1,500 + 300 + 770 = 4,670 SF

LEGEND

CMU WALL - REFER TO STRUCTURAL
PROPERTY LINE
XX KEYNOTE

CENTRAL EASTSIDE VENUE

NWC/MAIN & SE WATER AVE
PORTLAND, OR 97214

ARCHITECT
LEVER
4713 N. Albina Avenue,
4th Floor Portland, OR 97217
T. 503.928.6940
www.leverarchitecture.com

STAMP

NOT FOR CONSTRUCTION

REVISIONS

PHASE
SCHEMATIC DESIGN

DATE
DECEMBER 21, 2023

PROJECT NUMBER
271

SCALE
As indicated

SHEET TITLE
FLOOR PLAN - ROOF

Z105

Portland Hearings Office
Case #424010
~~Bureau Case #LU 23-151784 CU AD~~
Exhibit #36
Page 39 of 39

1 Z105 ZONING - FLOOR PLAN - ROOF
SCALE: 1/8" = 1'-0"

From: Damien R. Hall <DHall@dunncarney.com>
Sent: Wednesday, July 17, 2024 3:40 PM
To: Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>
Cc: Jonathan Malsin <jonathan@beamdevelopment.com>; Stanley, Suzannah <SStanley@mcknze.com>
Subject: Case No. 4240010 - Central Eastside Music Venue (2 of 3)

Hearings Office Clerk:

On behalf of the applicant in the above-captioned review, please find attached the following evidence submitted during the open record period.

1. Climate policy paper
2. Carbon white paper
3. View from Marquam
4. Information on other buildings

Please don't hesitate to contact me on this matter.

Damien R. Hall
dhall@dunncarney.com
Direct 503.306.5305 | Fax 503.224.7324 | DunnCarney.com

Dunn Carney Allen Higgins & Tongue LLP
Suite 1500, 851 SW Sixth Avenue | Portland, OR 97204
Member of Meritas Law Firms Worldwide Meritas.org

Public policy paper

Climate change and the production of iron and steel

worldsteel ASSOCIATION

Whether it is future energy and transport systems, protection from the impacts of natural disasters, climate-resilient infrastructure, construction and housing, low-carbon manufacturing and agriculture, steel is at the heart of delivering solutions.

Increasingly, circular economic approaches are prolonging steel's useful life. The steel industry is an integral part of the circular economy – with our material ideally suited to be remanufactured, reused and ultimately recycled.

The Paris Agreement

The Paris Agreement was adopted in 2015. The agreement's central aim is to limit global temperature rise to well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. The agreement aims to reach a balance between anthropogenic emissions and removals by sinks in the second half of the century.

Transforming steel production

Iron is made by removing oxygen and other impurities from iron ore. When iron is combined with carbon, recycled steel and small amounts of other elements it becomes steel. Once made, it is a permanent resource; it is 100% and infinitely recyclable without any loss of properties.

Steelmaking is a truly global industry, and raw materials (such as iron ore and scrap) and steel products are traded globally to a large extent. Today, over 70% of global steel production takes place in Asia.

The production of steel remains a CO_2 and energy-intensive activity. However, the steel industry is committed to continuing to reduce the footprint from its operations and the use of its products.

Our industry fully supports the aims of the Paris Agreement.

There is no single solution to drastically reducing CO_2 emissions from our industry, however, the main elements enabling industrial and societal transformation are:

Reducing our own impact

We take responsibility for our impact by reducing our emissions from the production of iron and steel. We strive for efficiency in our processes and maximised use of scrap. We continue our efforts to develop and deploy breakthrough low-carbon steel making technologies.

Efficiency and the circular economy

We drive more reuse, remanufacturing and recycling, all key elements of the circular economy.

Modern steels are stronger, lighter and more durable than ever before. The steel industry works intensively with its customers, from design to end-of-life, to share our material knowledge to ensure that steel is used as efficiently as possible in any given application. In this way we enable the circular economy and contribute to material efficiency at every stage.

Developing advanced steel products to enable societal transformations

We are developing and manufacturing the advanced steel products necessary to facilitate the required transformation and adaptation of society to reach carbon neutrality through zero energy buildings, renewable energy infrastructures, electrification and more.

We assist our customers in delivering innovative solutions through the use of our material and the introduction of new advanced steel products.

While each of these will play a strong role, this paper focuses on the first element – mitigating our own emissions from the production of iron and steel.

Key points from this policy paper

The important elements to enable industrial and societal transformation are: reducing our impact, creating advanced products, and focusing on the circular economy

01 step up 02 03

There are three components to reducing our impact: step up, maximising scrap use, and developing breakthrough technologies

The steel industry will mitigate its CO_2 emissions

The steel industry will create partnerships to enable transformation

The steel industry will be open and transparent

Being responsible - Reducing our own impact

- In 2020, on average, every tonne of steel produced led to the emission of 1.89[1] tonnes of CO_2 into the atmosphere. In 2020, 1,860 million tonnes (Mt) of steel were produced[2], and total direct emissions from our sector were of the order of 2.6 billion tonnes[3], representing between 7% and 9% of global anthropogenic CO_2 emissions.
- In 2020, the International Energy Agency (IEA) released a roadmap[3] that explores potential technologies and strategies necessary for the iron and steel sector to pursue a pathway compatible with the IEA's broader vision of a more sustainable energy sector.

The IEA Iron and Steel Technology Roadmap

In October 2020, the International Energy Agency (IEA) released its Iron and Steel Technology Roadmap[3]. This document analyses the impacts and trade-offs of different technology choices and policy targets for the industry to be in line with the goals of the Paris Agreement.

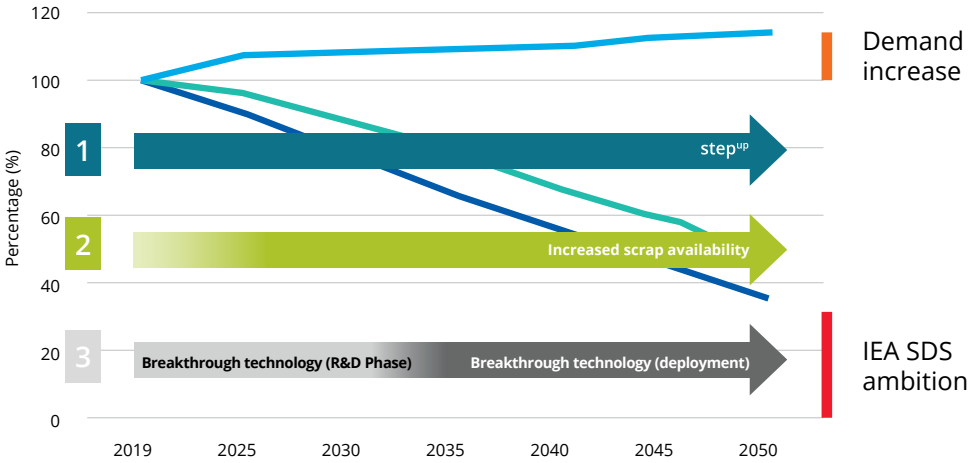
Under the IEA's Sustainable Development Scenario, total direct emissions from the iron and steel sector fall by more than 50% by 2050 relative to 2019. On the same pathway, the emissions intensity of crude steel production must fall by 58%.

The IEA states that steel is vital to modern economies and notes that sustaining the projected demand growth in steel while reducing emissions poses immense challenges. While efficiency improvements will help the industry, there is a need to develop further and deploy a broad portfolio of breakthrough technology options and enabling infrastructure to achieve long term, deep reduction in emissions.

Furthermore, the IEA notes the critical role governments must play in ensuring a sustainable transition of the sector, and concludes with a call to action for governments, the steel industry, the research and NGO communities and other stakeholders.

Reducing our impact: three components

Steel production, total CO_2 emissions and CO_2 intensity, 2019 - 2050 under the International Energy Agency (IEA) Sustainable Development Scenario (SDS)



Based on data provided in the IEA's Iron and Steel Technology Roadmap, October 2020

1. step^up

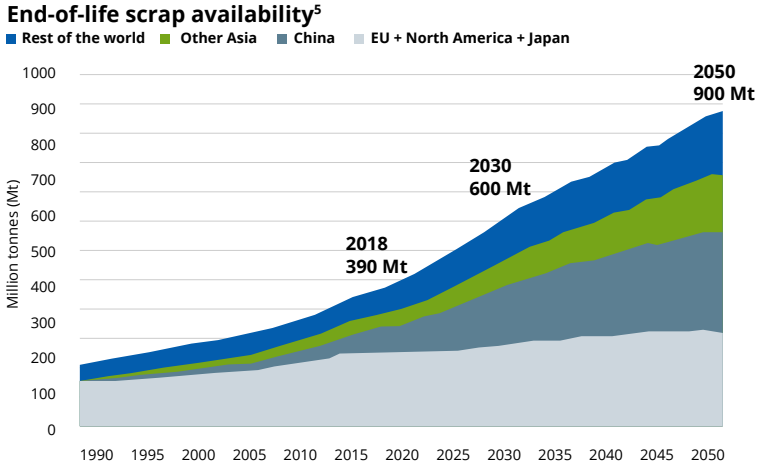
worldsteel's members, who represent around 85% of global steel production, continue to find ways to drive efficiency in energy and raw material use and to invest in energy-saving technologies. On the road to the deployment of breakthrough technology, short and medium-term process efficiency gains will provide important CO_2 emissions reductions.

In 2019, the worldsteel Board of Members launched 'Step Up', a new industry-wide efficiency review process based on leading practices that focus on the key efficiency levers of raw material quality, energy efficiency, process yield and process reliability.

The successful implementation of the Step Up methodology has the potential of reducing direct and indirect emissions by up to 20% at the average ore-based steelmaking site, and up to 50% at the average scrap-based facility[4]. All of worldsteel's members are encouraged to participate in the Step Up programme, and broad adoption of the methodology across our industry will elevate the performance of all sites to levels commensurate with the very best performers. As such, it represents a key initiative in the effort to reduce our impact.

2. Maximise scrap use

End-of-life scrap availability[5]



Every steel plant is also a recycling plant, and all steel production uses scrap, up to 100% in the electric arc furnace (EAF) and up to 30% in the blast furnace (BF) route. All scrap that is collected is recycled, and the overall recycling rate today is estimated to be about 85%. This high level of recycling means that there is limited room for improvement.

Scrap plays a key role in reducing industry emissions and resource consumption. Every tonne of scrap used for steel production avoids the emission of 1.5 tonnes of carbon dioxide, and the consumption of 1.4 tonnes of iron ore, 740 kg of coal and 120 kg of limestone[6].

The future expansion of scrap-based steel production will depend on the availability of high-grade scrap. While iron ore supply can flex with demand, global scrap availability is a function of steel demand and the arising of scrap when steel-containing products reach the end of their life. Global steelmaking capacity experienced a phase of explosive growth from the early 2000s largely fuelled by investment in new capacity in China. With steel products having an average lifespan of 40 years[7], this steel will begin to enter the scrap market in the next decade, enabling a significant reduction of steel industry emissions.

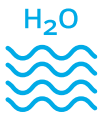
3. Breakthrough technology

Currently, the only technically and commercially feasible way to produce steel from iron ore[8] is through the use of fossil fuels as reducing agents.

The blast furnace is the dominant technology used to reduce iron ore today. The modern blast furnace is continually being developed and refined and currently operates close to the efficiency limit of the reduction process.

Therefore, to achieve the drastic reductions needed, an entirely new, transformative approach to ironmaking is required and there are several promising initiatives under development. These fall into three broad categories:

1. Using carbon as a reductant while preventing the emission of fossil CO_2, for example using carbon capture, utilisation and storage (**CCUS**) and/or sustainable **biomass**.



2. Substituting **hydrogen**[9] for carbon as a reductant, generating H_2O (water) rather than CO_2.

3. Using electrical energy through an **electrolysis**-based process.

This reliance on fossil fuels defines the steel industry's past as a major emitter of greenhouse gases, but we are committed to a low-carbon future.

A portfolio of technology options

There is no single solution to low-carbon steelmaking, and a broad portfolio of technological options will be required to be deployed alone or in combination as local circumstances permit. Our industry is leading many research, development and deployment (RD&D) efforts globally to develop each of these options.

In any given location, the choice of which breakthrough solution to deploy will be determined by the availability of resources and local policy support.

For example:

- In areas rich in low-carbon energy, one might expect to see the deployment of water electrolysis and hydrogen reduction.
- In areas with access to CO_2 storage, for example the UAE, the USA or the Netherlands, CCS or blue hydrogen[9] reduction may emerge as the most appropriate choice.
- In areas offering potential access to biomass resources, such as Australia or Brazil, sustainable biomass and biochar may be used to substitute coal in existing steelmaking processes.
- Carbon capture and utilisation (CCU) can combine carbon-rich waste gases with renewable energy to create synthetic fuels and chemicals such as acetone and isopropanol that can be used as feedstock by the chemicals sector.

What is low-carbon steel?

worldsteel defines low-carbon steel as steel that is manufactured using technologies and practices that result in significantly lower CO_2 emissions than conventional production.[10]

Climate Action

Carbon capture and storage (CCS)

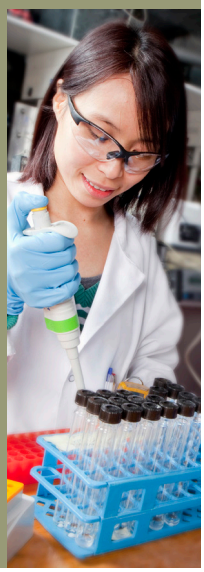
At Emirates Steel in the UAE up to 800 kt of CO_2 per year is captured from the CO_2 rich gas stream from the ironmaking plant. The gas is compressed, dehydrated and pumped through 50 km of pipeline before being injected into a mature oil field for permanent storage.

Hydrogen

HBIS is building a 1.2 Mt capacity hydrogen metallurgy DRI demonstration project. The project in China will use green and blue hydrogen technologies to explore a path to zero CO_2 emissions from the iron and steelmaking processes.

Carbon capture, use and storage (CCUS)

ArcelorMittal is constructing a large-scale facility in Ghent, Belgium to convert process gases to ethanol, which can be used in a wide range of applications, including the production of synthetic fuels. The plant will have a capacity of 80 million litres of ethanol per year. A similar commercial facility began operation in 2018 at Shougang Group in China, producing 30 million litres of ethanol for sale in the first year of operation.



Renewable energy

Rocky Mountain Steel in Colorado, USA, is transitioning from coal to solar power. The plant will be the largest on-site solar plant in the country dedicated to a single customer when it comes online.

For more examples of steel industry initiatives, go to the Climate Action section of worldsteel.org

The IEA roadmap projects that the broad deployment of breakthrough technology will accelerate between 2030 and 2050. However, we can expect to see first movers trial and implement first of a kind plants providing increased quantities of low-carbon steel to the market from the mid-2020s. Learnings from these innovations will support broader deployment across the wider industry by mid-century.

Cost implications

Each company's choice of which breakthrough technology to invest in will to a large degree depend on the resources available and the policies in place. However, even if the conditions are good, it is clear that the production of low-carbon steel is going to be more expensive than steel production today.

The higher production cost will result from a combination of the following:

- increased operational expenses, due to, for example: use of more expensive low carbon resources such as green hydrogen or low-carbon electricity; CCS equipment requiring additional energy to operate and for CO_2 storage
- increased capital expenses due to, for example: replacement of coal-based blast furnace units with hydrogen-based DRI units and basic oxygen furnaces with electric arc furnace units; the conversion of existing equipment to use hydrogen or other fuels; the retrofitting of CCS or CCUS infrastructure
- capital losses due to, for example: the potential early retirement or write-off of long-lived steelmaking assets

The IEA estimates the additional production cost to be between 10% and 50%[11] compared to today, a cost increase significantly exceeding

production margins. However, the steel industry will continue to reduce costs by improving its operational efficiency and deploying intelligent manufacturing technologies, partly offsetting the additional cost.

Since the transformation of the industry will be gradual, with some companies/countries/regions moving faster than others, steel produced using low-carbon technologies will be competing with conventionally produced steel (and other conventionally produced materials) in the same market for some time. This will create a first mover disadvantage and policy support will therefore be needed.

Partnerships between governments and the steel industry are fundamental to a sustainable future

The tools available to governments, the steel industry profile, and anticipated access to affordable and low-carbon technologies differ by region and by country. As with the Paris Agreement, we believe that individual countries are best placed to assess and implement policy and technical strategies to suit their particular circumstances.

Nevertheless, it is absolutely clear that governments, the steel industry and other stakeholders will all need to collaborate closely to overcome the technological and economic challenges and create the market conditions necessary for the steel industry to transition to low-carbon steelmaking effectively.

In practice this means that:

The steel industry will:

Mitigate our own emissions

- Accelerate efforts to improve energy and CO_2 efficiency across the global industry and work with partners and neighbours to create synergies
- Develop a portfolio of breakthrough technologies through increased research and development
- Ensure that all scrap that is collected is recycled into new steel products by developing technologies that maximise the value of all collected scrap

Create partnerships to enable transformation

- Engage with governments to make clear what will be needed in terms of low-carbon resources and finance to deploy these breakthrough technologies at scale

Be transparent

- Continue to measure and report on our CO_2 emissions

Governments need to put a supportive and enabling framework in place that:

- Does not pick winners and losers among possible technologies but recognises that a number of different technologies will be used
- Reduces the first mover disadvantage by increasing the demand for low-carbon materials and creating a market for low-carbon steel, keeping in mind that producing low-carbon steel will be up to 50% more costly than conventionally produced steel today.[12] At the same time, ensuring that policies reward proactive efforts and do not create an economic disadvantage for companies who have already invested in efficient steelmaking
- Enables access to finance for the transition, through, for example, frameworks for sustainable finance.
- Ensures availability and affordability of low-carbon resources, including CCS infrastructure and hydrogen, in quantities necessary
- Takes a life cycle approach and supports the circular economy, including the collection and sorting of end-of-life scrap
- Takes an innovative approach to the regulation of low-carbon processes and products, such as the products from CCU processes

Stakeholders and users of steel also have a role to play and should:

- Demand low-carbon steel and understand that this will come at an additional cost
- Consider the entire life cycle and design steel containing products suitable for remanufacturing, reuse and recycling

Notes and references:

1. worldsteel data; includes scope 1, scope 2 and process critical scope 3 emissions, weighted average including both ore and scrap based steel production. Calculated using a methodology consistent with the ISO 14404 series.
2. worldsteel, press release, https://worldsteel.org/media-centre/press-releases/2021/global-crude-steel-output-decreases-by-0-9-in-2020
3. IEA, Iron and Steel Technology Roadmap, October 2020 (https://www.iea.org/reports/iron-and-steel-technology-roadmap)
4. The emission reduction potential relates to Scope 1, 2 and 3 emissions associated with key steelmaking operations even if these are outsourced. Source: CO_2 Data summary report 2020, worldsteel
5. worldsteel, scrap availability model, September 2019 estimate
6. worldsteel, Life Cycle Inventory (LCI) data
7. worldsteel calculation, https://worldsteel.org/about-steel/steel-facts
8. Iron ores are materials rich in iron oxides. Significant amounts of energy are required to reduce, or break, the strong bonds between iron and oxygen atoms to produce metallic iron, which is the first step in making virgin steel.
9. Carbon free hydrogen can be classified as 'green' (produced by electrolysis of water using carbon-free electricity) or 'blue' (derived from natural gas in plants equipped with CCS)
10. worldsteel, blog: What do we mean by low-carbon steel, https://www.worldsteel.org/media-centre/blog/2021/blog-low-carbon-steel-meaning
11. IEA, Iron and Steel Technology Roadmap, October 2020, https://www.iea.org/reports/iron-and-steel-technology-roadmap
12. IEA, Iron and Steel Technology Roadmap, October 2020, https://www.iea.org/reports/iron-and-steel-technology-roadmap

World Steel Association

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worldsteel
ASSOCIATION

Event-Type Buildings with Eco Roofs

CASE FILE: LU 23-111784 CU AD
Source: Beam Development
Prepared: 7/17/24

	Target Center	Jacob Javits Center	Vancouver Convention Centre	Soka Performing Arts Center	Central Eastside Venue
Location	Minneapolis, MN	NYC, NY	Vancouver, BC	Aliso Viejo, CA	Portland, OR
Size (SF)	831,533	3,300,000	1,200,000	96,810	62,000
Use	NBA, WNBA & Concerts	Convention Center	Convention Center	Concert Hall	Music Venue
Budget	$145M Renovation (2017)	$1.5B Expansion (2016-2021)	CA$883.2M (exclusive of land / 2009)	$73M (exclusive of land / 2011)	Current Est. $50M
Seismic Zone	Not a high risk zone	Not a high risk zone	High risk	High risk	High Risk
Soils	Bedrock	Bedrock	Liquefiable soils	Bedrock	Liquefiable soils
Ownership	Government	Government	Government	Private Nonprofit (Soka University)	Private For-Profit
Design/Structure	Arena - Spread footings / Caissons / Steel piles	Space frame with glass façade	Eccentric braced bays / Approx. 1,000 steel piles 180 ft deep	CMU Block with glass façade	CFA Piles 100 ft + deep / CMU / Steel / Storefront

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U.S. Cement Industry Carbon Intensities (2019)

EPA 430-F-21-004
October 2021

Cement plants operate high temperature kilns to produce clinker, which is ground and blended with other materials to make cement, the bonding agent in concrete. Cement manufacturing is energy intensive and a major source of greenhouse gas (GHG) emissions from the industrial sector. In 2019, ninety-two cement plants reported emissions of 67 million metric tons of carbon dioxide equivalents (CO_2e) to the U.S. Environmental Protection Agency (EPA). These emissions comprise roughly 10% of the industrial sector's direct reported emissions.[i]

Reducing cement plant GHG emissions and product carbon intensity are important goals for both the cement industry and its customers. To assist the U.S. cement industry in evaluating its efforts to decarbonize, EPA calculated the 2019 carbon intensities for the intermediate and final products of cement plants: clinker and cement. These intensities serve as reference points for the industry's carbon performance, represented as tons of carbon emitted per ton of clinker and tons of carbon emitted per ton of cement. The intensities are derived from cement plant data reported to the U.S. EPA Greenhouse Gas Reporting Program (GHGRP) and reflect direct emissions (Scope 1) from on-site fuel use and process emissions, comprising the majority of GHG emissions from cement plants.[ii] The table below presents quartile carbon emissions intensities for clinker and cement for the reporting cement plants. For this study, the 75th percentile reflects plants with lower carbon intensities and the 25th percentile reflects plants with higher carbon intensities. The 50th percentile is the median.

2019 Direct Carbon Intensities

Quartile	Metric Ton CO_2 / Metric Ton of Clinker	Metric Ton CO_2 / Metric Ton of Cement	Carbon Intensity
75th percentile	0.787	0.722	Low
50th percentile (median)	0.838	0.776	Midpoint
25th percentile	0.934	0.886	High

Methodology

Cement plants operating in the United States and its territories report total annual greenhouse gas emissions, clinker production, and cement production under the U.S. EPA GHGRP. To calculate carbon emission intensities, only data from cement plants reporting emissions using continuous emission monitoring systems (CEMS) was used.[iii] These emissions reflect the total cement kiln CO_2 emissions from fuel combustion and from the calcination of limestone (process emissions) at the plants. Emissions from biogenic fuels, methane (CH_4), and nitrogen oxide (NO_2) were excluded.[iv] CO_2 emissions from other on-site sources, such as stationary combustion unrelated to the kiln, were not included.[v] Data for calendar year 2019 (January – December) were analyzed. Carbon intensities for clinker and cement were calculated for each plant by dividing total annual CO_2 emissions from the kiln by the plant's total annual production of clinker or cement. A distribution of plant carbon intensities was created, and the intensity levels for the 25th, 50th, and 75th percentiles were calculated.

For the purposes of this evaluation, a plant with a carbon intensity at the 75th percentile emits less carbon dioxide per metric ton of clinker or cement than a plant with carbon intensity around the median intensity level (i.e., 50th percentile). Cement plants operating at the 50th percentile perform at the midpoint for the industry, while plants operating above the 50th percentile (i.e., those plants with intensities lower than 0.838 CO_2 per ton of clinker or 0.776 CO_2 per ton of cement) are operating at above average carbon performance and emit lower levels of CO_2 per ton of clinker or cement than plants below the median. Plants operating at or below the 25th percentile emit higher levels of CO_2 per ton of clinker or cement.

Those seeking to compare their cement plant's carbon intensity to the benchmarked quartiles should use the plant's annual data submission to U.S. EPA according to the reporting rules of the U.S. EPA GHGRP for calendar year 2019 and the following calculation using metric tons (MT):

MT CO_2/ MT clinker or cement = Total kiln MT CO_2 emissions / total MT clinker or total cement production

Observations

The quartile distributions of carbon intensities for clinker and cement are relatively narrow. For example, clinker from plants at the 75th percentile is 6% less carbon intensive than clinker from plants at the 50th percentile. The difference in carbon intensity between clinker from plants at the 50th versus 25th quartiles is 10%. The table below shows the differences in carbon intensity between the quartiles for clinker and cement.

Inter-quartile differences in carbon intensity	Clinker	Cement
75th vs 50th	6%	7%
50th vs 25th	10%	12%
75th vs 25th	16%	19%

Both large and small plants were observed in all carbon intensity quartiles. Additionally, no correlations were observed between carbon intensity and plant location, with plants in all quartiles being distributed across the country.

Periodically reviewing manufacturers' clinker and cement emissions intensities provides an opportunity to see the progress made by cement manufacturers in reducing carbon dioxide emissions from on-site fuel use in the kiln and from process-related emissions. These emissions may be reduced through a variety of means, including:

- production of blended forms of cement that include lower amounts of clinker in the final product;
- institution of energy efficiency measures that reduce fuel consumption; and,
- selection of lower carbon fuels.

These and other strategies can result in lower carbon intensity in final cement products.

For more information about the EPA's Greenhouse Gas Reporting program

Cement Plant Reporting Requirements: https://www.epa.gov/ghgreporting/subpart-h-cement-production
Cement Technical Documentation: https://www.epa.gov/ghgreporting/subpart-h-technical-support-document
Code of Federal Regulations – Subpart H - Cement Production: https://www.ecfr.gov/cgi-bin/text-idx?SID=2a1b1531ba5026f83908a18f85bc1c94&mc=true&node=sp40.23.98.h&rgn=div6
Relationship of the GHGRP to the national *Inventory of U.S. Greenhouse Gas Emissions and Sinks*: https://www.epa.gov/ghgreporting/greenhouse-gas-reporting-program-and-us-inventory-greenhouse-gas-emissions-and-sinks.

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[i] Derived from direct emissions reported to the US EPA's Greenhouse Gas Reporting Program for year 2019 (www.ghgdata.epa.gov). This data set only includes direct emissions (Scope 1) from on-site fuel use and manufacturing processes (i.e., emissions from calcination) from plants generally with annual GHG emissions over 25,000 metric tons. Within the cement sector, all plants are required to report. Total reported direct emissions from industrial plants for 2019 were 683 million metric tons of CO_2e. Industrial sector emissions excludes emissions from Power Plants, Petroleum & Natural Gas Systems, Waste, Underground Coal Mines, Universities, Military, and Use of Electric Equipment. CO_2e emissions include Methane (CH_4), Nitrous Oxide (N_20), process emissions and other gases. The *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2019* provides estimates of total national emissions from the cement sector in Chapter 3 (Energy) and Chapter 4 (Industrial Processes and Product Use). See https://www.epa.gov/ghgreporting/greenhouse-gas-reporting-program-and-us-inventory-greenhouse-gas-emissions-and-sinks.
[ii] Indirect (Scope 2) GHG emissions associated with electricity use represent less than 10% of total emissions from cement plants.
[iii] About 90% of cement plants reported GHG emissions based on data from Continuous Emissions Monitoring Systems (CEM) that measure carbon emissions released to atmosphere. Data from plants not using CEMs was excluded to ensure a consistent data set.
[iv] Emissions from biogenic fuels (e.g., wood waste) and other gases (CH_4 and NO_2), on average, were less than 1% of total emissions for most plants using CEMS.
[v] Emissions from other stationary sources (e.g., boilers, generators) unrelated to cement kilns were, on average, less than 1% of total emissions reported in 2019.

From: Damien R. Hall <DHall@dunncarney.com>
Sent: Wednesday, July 17, 2024 4:21 PM
To: Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>
Subject: Case No. 4240010 - Central Eastside Music Venue (3 of 3)

Hearings Office Clerk:

On behalf of the applicant in the above-captioned review, please find attached the following evidence submitted during the open record period.

1. Cost Analysis

Please don't hesitate to contact me on this matter.

Damien R. Hall
dhall@dunncarney.com
Direct 503.306.5305 | Fax 503.224.7324 | DunnCarney.com

Dunn Carney Allen Higgins & Tongue LLP
Suite 1500, 851 SW Sixth Avenue | Portland, OR 97204
Member of Meritas Law Firms Worldwide Meritas.org

Tuesday, July 16, 2024

Project: Central Eastside Venue
Owner: BEAM & CDG
Design Team: LEVER & DCI
RE: CEV Conditional Use Hearing/ECO-Roof

COLAS CONSTRUCTION

Central Eastside Venue
Eco Roof Premium Breakout

	Quant	Unit		Premium	Comments
Building Scope:					
03 | Concrete					
Upsized concrete footings	1	L.S		$ 167,488	Upsized footings.
05 | Structural Steel					
Upsized steel girders	1	L.S		$ 475,133	Upsized steel trusses.
Upsized steel columns | beams	1	L.S		$ 315,007	Upsized steel columns and beams.
07 | Roofing					
Eco Roof upgrade	12,517	S.F.		$ 938,775	Eco Roof assembly premium
Eco Roof Warranty Upgrade	12,517	S.F.		$ 275,374	Eco Roof warranty requirements.
23 | MECHANICAL					
Mechanical	1	L.S		$ 507,411	Increase to mechanical system to account for increase in volume.
26 | Electrical					
Electrical	1	L.S		$ 127,467	Increase to electrical gear load to account for upsized mech.
31 | Earthwork					
Additional Excavation/Haul-Off for Ground Improvements	1	L.S		$ 117,844	Increase in spoils management ~20%
Upsized | Additional Ground Improvements	1	L.S		$ 321,147	Increase in ground improvement scope ~ 20%
01 | General Conditions					
Schedule Impacts	1	L.S		$ 232,815	
			Subtotal:	$3,478,461	
			Markups: (20%)	695,692	
Rough Order of Magnitude | ROM:			***Total***	$ 4,174,153	

Eco Roof Premium | Assumptions

- Eco Roof weight requires additional load capacity at the ground. This results in increased **pile (ground improvement)** sizes, counts and rebar weights.
- Eco Roof weight requires additional load capacity at the ground. This results in increased **footings sizes, additional rebar and increased rebar** sizes.
- Eco Roof weight requires additional load capacity at roof structure. The result is upsized s **tructural steel members at roof structure as** well as all load bearing columns extending down to the foundation.
- Eco Roof's require increased **durability at the roof area** to address the alternate assembly. The introduction of planting's, soil, watering, and maintenance require an increased millage at the roof as well as additional roof penetrations depending on assembly selection.
- Eco Roofs require **better warranty expectations** for all assemblies adjacent. (Roofing, Waterproofing, Decking, Etc.)
- Eco Roofs are more **laborious to install and require additional time** to install and plant, increasing the schedule by roughly a month to a month and a half.
- Eco Roof weight requires the upsizing of steel structures, which interferes with the sight lines throughout the auditorium space. In order to maintain the viability of the viewing throughout the venue the building height was raised, as a result **the mechanical & electrical systems needed to increase** to account for the additional volume of space.
- Associated markups (Fee, Insurance, Taxes, Construction Contig.) were all included as a percentage. (20%)

Portland Hearings Office
Case #4240010
Bureau Case #LU 23-111784 CU AD
Exhibit #38
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From: Bob Sallinger <bob@willametteriverkeeper.org>
Sent: Wednesday, July 17, 2024 3:42 PM
To: Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>
Cc: Bob Sallinger <bob@birdconservationoregon.org>
Subject: LU 111784 CU AD

Dear Hearings Officer,

Please see attached comment from Willamette Riverkeeper opposing the adjustment for ecoroofs in LU 111784 CU AD. Thank you for your consideration of these comments.

Bob Sallinger

Bob Sallinger
Executive Director
Willamette Riverkeeper
1210 Center Street
Oregon City, Oregon 97045
(503) 380-9728
bob@willametteriverkeeper,org

Date: July 16, 2024
To: Code Hearings Officer
From: Willamette Riverkeeper
Re: Opposition to ecoroof adjustment for proposed Live Nation Facility (LU 111784 CU AD)

Dear Hearings Officer,

I am writing on behalf of Willamette Riverkeeper in opposition to ecoroof adjustment at the Live Nation Facility proposed to be located in the Central Eastside Industrial Area (LU 111784 CU AD).

Willamette Riverkeeper is a 501(c)(3) nonprofit organization dedicated to the protection and restoration of the Willamette River. Green roofs ("ecoroofs") play an important role in restoring ecological function to our degraded urban landscapes. Willamette Riverkeeper is a strong supporter of the ecoroof mandate that was adopted by the Portland City Council in 2018. While we are currently housed in Oregon City, we were located for years within a couple of blocks from the proposed development and our focus includes the entire Willamette River Watershed.

Both the City and developers have failed to meet their burden to demonstrate that an adjustment is warranted in this circumstance. In fact, we are surprised that the analysis in the report is so cursory and superficial. Live Nation proposes and the City supports reducing the required 14,616 square foot ecoroof down to 2,100 square feet (an 86% reduction) in exchange for some planters, small tree plantings and vines. Neither Live Nation nor the City make any sort of meaningful attempt to describe, let alone measure, how the proposed alternative will accomplish the multiple objectives of the ecoroof standard.

Willamette Riverkeeper
1210 Center Street
Oregon City, Oregon 97045
https://willamette-riverkeeper.org/

Instead, it was suggested at the hearing that the proposed alternative green strategies at the Live Nation facility would result in development that was greener than the surrounding landscape. Comparing this project to the status quo in the Central Eastside Industrial Area completely misses the point. Currently, the Central Eastside Industrial Area is among the greyest, most polluted, urban heat islands in the City of Portland. The goal is not to perpetuate or slightly improve upon the current status quo and it is disappointing to hear Live Nation and the City falling back on this kind of spurious argument. The ecoroof mandate was designed to transform our landscape into something far more resilient, sustainable, environmental protective and equitable.

When the Portland City Council adopted the ecoroof standard in 2018, it recognized that ecoroofs provide myriad benefits including addressing urban stormwater, cleaning our air and water, reducing urban heat island effects, sequestering carbon, providing wildlife habitat, reducing heating and cooling costs, significant extending the life of the roof and improving the aesthetics of our urban landscapes. City Council was well aware of other green infrastructure strategies when it adopted the ecoroof mandate, but chose to specifically require 100% ecoroofs coverage (minus space for utilities) on central city roofs over 20,000 square feet. This was not a quick decision; it was subject to extensive public discussion and expert input prior to adoption. At the time of adoption, the City received national attention for adopting one of the most innovative green infrastructure strategies in the United States.

The proposed strategies will not provide the myriad benefits provided by a large ecoroof and therefore does not qualify for an adjustment. Beyond compliance with the SWMM, proponents have failed to substantively address any of the benefits that ecoroofs provide. City Council was explicitly trying to achieve more than simply managing stormwater when it put the ecoroof mandate in place. This proposal fails to achieve those multiple benefits.

Additionally, proponents seem to rely on cost and feasibility as a basis for proposing alternative strategies. In fact, as expert testimony from City of Portland ecoroof expert, Tom Liptan (retired) indicated, an ecoroof is feasible with the proposed design. City Council did not provide exceptions or exemptions to the ecoroof mandate based on cost and the City should rely on this as a basis for approving an adjustment now. It is notable that Live Nation did not even provide information on the actual cost of the ecoroof to support its request for an adjustment. We do not believe that it is appropriate to provide an adjustment based on cost to any developer, let alone the most successful entertainment company on the planet which in 2023, generated $22.75 billion in

revenue, a 36% increase over its revenue in 2022. This is a company that can afford to meet Portand's commitment to environmental health.

If this project moves forward, it will present an important opportunity to showcase Portland's innovative ecoroof mandate. Tens of thousands of visitors could learn about both the City's and Live Nation's commitment to innovative green sustainability strategies. It would be deeply disappointing if it instead becomes a high profile example of how the City is willing to sacrifice environmental and community health in order to court powerful corporate entities. The City should stand behind Portland's ecoroof mandate and Live Nation should step into this challenge and demonstrate its commitment to environmental innovation, local environmental values and environmental health in our community.

Finally, the city did the bare minimum on outreach required by law and failed to reach out to either groups involved in the Central City Plan or the Green Roof Mandate. While this may not be required, the city is well aware of groups that have vested interest in this issue. This project is too big and too high profile for the city to rely on minimum outreach requirements.

Thank you for your consideration of these comments.

Respectfully submitted,

Bob Sallinger
Executive Director and Riverkeeper
Willamette Riverkeeper

Willamette Riverkeeper
1210 Center Street
Oregon City, Oregon 97045
https://willamette-riverkeeper.org/

City of Portland, Oregon
Portland Permitting & Development
Public Infrastructure Permit Review - Transportation

David Kuhnhausen, Interim Director
Phone: (503) 823-7300
TTY: 711
www.portland.gov/ppd

Memorandum

Date: **July 19, 2024**

To: **Hearings Officer**

From: **Michael Piña, Development Review Planner, Public Infrastructure – Transportation. Portland Permitting and Development.**

Re: **LU 23-111784 CU AD (Hearings Office Case # 4240010)**

In regard to the letter provided to the Hearing's Officer on Wednesday, July 17th from Carrie Richter, on behalf of MusicPortland, PBOT would like to add to the following clarification:

The subject site is does not abut the railroad Right-of-Way, therefore improvements such as an improved crossing is not required of the applicant or project.

H. Lee & Associates, PLLC
Civil Engineering, Traffic Engineering, and Planning

MEMORANDUM

P.O. Box 1849
Vancouver, WA 98668
Phone: (360) 727-3119

To: City of Portland Hearing Officer

From: H. Lee & Associates, PLLC

Date: June 24, 2024

Subject: Traffic Comments for Live Nation Event
LU 23-111784 CU AD

Introduction

H. Lee & Associates, PLLC (HLA) has been retained by Bateman Seidel to provide an independent review of the DKS traffic study (Portland Central Eastside Venue Transportation Impact Study, May 2024). The remainder of this memorandum provides a brief qualification of HLA and HLA's traffic review.

H. Lee & Associates, PLLC (HLA) Qualifications

Hann Lee, P.E., the founder of HLA, has 34 years of experience in the transportation planning and traffic engineering field. Mr. Lee started HLA in October 1996 and the firm has been in business almost 24 years. Within HLA's body of experience, the company is well versed in working with municipal clients as well as private clients. HLA is licensed in both Oregon and Washington.

Conflict between Modes (Railroad/Railroad Crossing, Pedestrian, Bicyclists, Transit, Ride Hailing)

HLA agrees with the Bateman Seidel's July 23, 2024 letter that conflicts between travel modes have not be adequately addressed as well as proper connectivity between modes.

The DKS traffic study has identified that there are no pedestrian crossing protection at any of the study area rail crossings when pedestrian trips are significant and includes connectivity to other modes where walking will be required such as ride hailing, private vehicle travel/park/walk to venue, transit/walk to venue, transit/bus, and walking trips. No analysis has been conducted to determine what improvements are needed for pedestrians at the existing the rail crossings. Hundreds of pedestrians are estimated from transit users needing to walk to the venue as well as people using ride hailing and private vehicles. There are safety issues associated with the rail crossing as well as lighting along pedestrian travel paths to and from transit, riding hailing zones, and on-street parked private vehicles as previously identified in the Bateman Seidel letter. These issues have not been properly analyzed and mitigated. As an example of a similar use, the Oregon Convention Center to the north has transit station and bus routes adjacent to it, pedestrian signals integrated with traffic signals to

assist in pedestrian crossings, street lights that are common along adjacent roadways, and on-site truck loading areas. Not having these amenities with the development proposal only proves that the site is inadequate for the proposed use. Not having enough room for amenities such as on-site truck loading should not be given consideration because it conflicts with other traffic and modes of travel and is a self-imposed hardship.

Further supporting the above, is Bateman Seidel's point that only 14 of the 45 blocks assumed for on-street parking are on the same side of the railroad tracks as the project site. The vast majority of parking for the private vehicle mode will require the patrons to cross the railroad tracks. Of those private car people (632), 31 out of 45 parking blocks will cross the railroad tracks which is estimated at 435 people. The assumptions are taken from Table 11 of the DKS traffic study. No consideration have been given to the safety of these people in regard to lighting, width of sidewalks, railroad crossings, and conflicts with other transportation modes.

The DKS traffic study identifies significant levels of ride hailing will occur and estimates that 30% of attendees will utilize these services. However, there is no design detail on how and where the drop offs and pick ups will occur. Approximately 175 feet of curb space has been identified to be needed. It is clear from the DKS traffic study that SE Salmon Street and SE Water Avenue has been ruled out because they are "high traffic roadways or those with Major City Bikeway designations." SE Main Street is also not a good candidate because the proposed bus and truck loading areas are proposed there. Since there are no good drop off and pick up areas directly adjacent to the site, this means it needs to be "off-site" somewhere. The problem with off-site is the short block length in the study area, close proximity of the railroad with potential spillback queues, existing business uses of adjacent frontages, and conflicts with other modes trying to utilize the same space or adjacent space. The identification of drop-off area options should have been identified in the DKS traffic study to assure that viable options are available and do not conflict with other heavily utilized transportation modes. Not doing a feasibility analysis with identified options only leads to questions about its feasibility which is problematic because it generates so many pedestrian trips to and from the drop off zone. With additional constraints like the railroad being so close, the likelihood is that any drop off and pick up zone(s) will be more than several blocks from the venue and could even be as far away as SE Martin Luther King Jr Boulevard and SE Grand Avenue.

Failure to Provide Employee Trip Generation

HLA concurs with the Bateman Seidel's July 23, 2024 letter which identifies that the DKS traffic study (Portland Central Eastside Venue Transportation Impact Study, May 2024) did not look at employee trip generation during the general commuter traffic peak hour which is generally from 4:00 to 6:00 P.M. This is especially concerning because there is typically two concerns of any new development, the development peak traffic period and the peak traffic period of the adjacent transportation facilities. The later has not be conducted and therefore full transportation impacts cannot be fully determined at this point.

Per Table 9 of the DKS study, the proposed development intends on having 18 special events during the day. This is not further defined and these events could definitely adversely impact the commuter peak between 4:00 and 6:00 P.M.

On-Street Truck Loading/Bus Parking Locations/Conflicts Created with Other Public Street Uses

The DKS traffic study shows that the on-street truck loading bay/parking area and the proposed bus parking areas are immediately adjacent to each other along SE Main Street. With the large trucks (WB-67) encroaching onto public right-of-way along SE Main Street and needing a large path to maneuver, it immediately creates conflict to have bus parking inside of the truck maneuvering area. Figure 10 of the DKS traffic study clearly shows this situation and can be further illuminated with Figure 9. Loading areas for large trucks should be separated from other activities. Figure 11 shows further issues with this lack of separation. Angled on-street parking is proposed to be adjacent to the truck loading area. It is not easy to maneuver large trucks such as WB-67s (which are approximately 73.5 feet long) and more maneuver space is recommended. It should be noted that to accommodate a minimum of two travel lane width along SE Main Street, parking on the south side of the street is proposed to be eliminated. The proposed project is a conditional use application in an industrial zone and shouldn't be taking resources away from existing and future industrial uses as discussed in the Bateman Seidel letter.

The DKS traffic study identifies the need for up to three bus parking spaces but only identifies one in a deficient area. Accommodation of the other two buses have not been adequately identified which infers they cannot be accommodated properlty.

HLA agrees with the Bateman Seidel's July 23, 2024 letter which states that "On-Street Truck Loading is Inadequate and Will Create Dangerous Conditions." The admission in the DKS traffic study (Portland Central Eastside Venue Transportation Impact Study, May 2024) that WB-67 trucks will service the events and that they will block the SE Water Avenue/SE Main Street intersection in a backing movement is not a safe maneuver and is certainly not consistent with the Priority Truck Street designation.

Figure 9 of the DKS study (page 35), shows that a WB-67 heading southbound along SE Water Avenue utilizing the entire width of the street, turning left onto SE Main Street headed eastward and straightening in the center of SE Main Street and finally backing through the SE Water Avenue/SE Main Street intersection. SE Water Avenue has on-street parking on both sides of the roadway, bike lanes on both sides of the roadway, and bulb outs on every side of the intersection except the northeast corner. Figure 9 shows the truck movement encroaching on the southbound bike lane along SE Water Avenue and blocking the street such that an emergency vehicle cannot pass through. The WB-67 southbound left turn maneuver onto SE Main Street puts the truck in the middle of the street which does not allow adequate room for an emergency vehicle to maneuver around the truck. The worst encroachment is the backing movement through the SE Water Avenue/SE Main Street intersection which again blocks access for an emergency vehicle.

While the DKS report mentions flagging to mitigate the safety, there is no recommendation of such condition. Even if flagging was offered, it does not address the blocking condition created for emergency vehicles to pass around a WB-67 truck. In addition, train usage of the railroad one block east would essentially eliminate an emergency vehicle's option of backing around to go around the block. It is essential to keep SE Water Avenue open without blockage created by the Live Nation Event Venue.

Finally, there is a concern regarding the WB-67 needing the whole block of SE Main Street between SE Water Avenue and the railroad to maneuver into a straight line before backing to the project site.

Any additional movement forward (to the east) would put the WB-67 onto the railroad tracks which is a potentially dangerous situation.

Crash Data

While the existing crash data is interesting, it cannot provide the future picture when there are thousands of pedestrians going to and from the project site. Regardless of mode, people from all modes will have to walk some distance to the venue. This should require careful consideration of off-site facilities that can safely accommodate all those pedestrians. Furthermore, it is reasonable to assume that this consideration would identify that some off-site pedestrian requirements are necessary. No proposed off-site pedestrian improvements are not a reasonable conclusion based on the significant number of pedestrian traffic generated. A mistake in judgement of off-site pedestrian improvements could have dire consequences if there is an increase in pedestrian related crashes.

Queuing

The DKS traffic study provided a queuing analysis for "With Project" conditions that can be found on pages 48 to 52. The following three intersections were defined with future queuing deficiencies:

SE Water Avenue/I-84 Off-Ramp
SE Stark Street/SE Grand Avenue
SE Stark Street/SE Martin Luther King Jr Boulevard

No mitigation was offered and it was suggested that signal timing changes could alleviate the queuing issues for the later two intersections. On major corridors, it is not a given that additional signal timing would be given to the side streets because the priority is the major street which would be SE Grand Avenue and SE Martin Luther King Jr Boulevard. Therefore, without more specific information and dialog, the explanation to mitigate these queuing issues is inadequate.

A greater concern regarding the queuing is that no analysis was actually conducted for the peak hour of the study area. This commuter peak period, typically from 4:00 to 6:00 p.m. on a weekday, would likely be the peak hour of the study area. The DKS traffic study clearly indicated that some events would occur during the day and potentially in the peak hour of the study area. During this time period, it takes much less project traffic to impact the study area in a significant way. If the proposed project is being permitted to allow events during the day unrestricted, then the traffic study should be amended to include the weekday P.M. peak hour. Without that analysis, the full extent of queuing impacts cannot be determined, especially at the SE Water Avenue/I-84 Off-Ramp intersection.

Conclusion

HLA is in full agreement with Bateman Seidel that the applicant has not provided adequate traffic analyses to fully determine impacts and mitigation.

LU 23-111784 CU AD
07/24/2024

To whom it may concern,

My name is Jamie Dunphy, my mailing address is 4532 NE 109th Avenue Portland Oregon 97220, and I'm a volunteer board member speaking on behalf of the organization MusicPortland. We are a nonprofit, volunteer-led organization focused on supporting Portland's independent music industry.

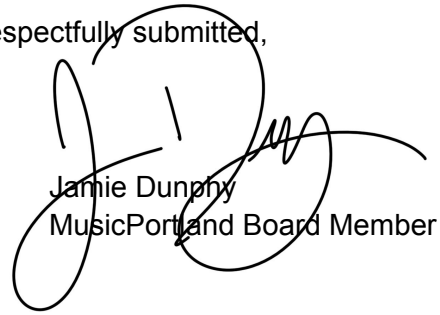
The applicant in this case cites an economic impact study done by Johnson Economics that shows the general benefits that could come from a potential music venue of this size and scale. We do not dispute either the potential jobs and economic benefits from a music venue, nor do we dispute the need for a music venue of this size in Portland to attract this scale of concert.

However, this study is both operator and site agnostic. It extolled the virtues of a potential music venue, but does not specifically address the challenges of locating this venue where it is being proposed. The benefits outlined in this study would be met were a venue built anywhere in the Portland metro. This study certainly does not suggest that a Central Eastside location would be necessary, nor that it would outweigh the potential detrimental effects of removing limited industrial lands.

Additionally, the data regarding venues and concerts in other regional markets is insufficient. It relies almost exclusively on PoleStar data, which is a dataset almost exclusively used by Live Nation, and does not reflect the independent music industries of those cities. Portland's data more accurately reflects Portland's independent music industry only because MusicPortland provided that data directly to Johnson Economics. This inherently biases the remainder of those comparisons, and as such MusicPortland argues this evidence should be disregarded.

MusicPortland is dedicated to the success of Portland's $3billion independent music industry.

Respectfully submitted,



Jamie Dunphy
MusicPortland Board Member

From: Hearings Office Clerks
To: Bradley, Shelia
Subject: FW: Updated Testimony Regarding LU 23-111784 CU AD
Date: Wednesday, July 24, 2024 2:24:44 PM
Attachments: Updated Testimony of Marshall Runkel LU 23-111784 CU AD.pdf

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From: Marshall Runkel <marshallr@strategies360.com>
Sent: Wednesday, July 24, 2024 2:20 PM
To: Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>
Subject: Updated Testimony Regarding LU 23-111784 CU AD

Hello Team Hearings Office Clerks,

I'm attaching updated testimony regarding LU 23-111784 CU AD.

Please let me know if I need to do anything else to include the attached testimony in the record.

Thank you,

Marshall Runkel

From: Damien R. Hall <DHall@dunncarney.com>
Sent: Wednesday, July 24, 2024 3:51 PM
To: Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>
Cc: Jonathan Malsin <jonathan@beamdevelopment.com>; Stanley, Suzannah <SStanley@mcknze.com>
Subject: Case No. 4240010 - Central Eastside Music Venue (2 of 4)

Hearings Office Clerk:

On behalf of the applicant in the above-captioned review, please find attached the following evidence submitted in response to submittals between 7.10.24 and 7.17.24.

1. 2007 aerial photography
2. 2007 demolition permit data
3. Venue program comparison
4. Neighborhood Building Comparison

Please don't hesitate to contact me on this matter.

Damien R. Hall
dhall@dunncarney.com
Direct 503.306.5305 | Fax 503.224.7324 | DunnCarney.com

Dunn Carney Allen Higgins & Tongue LLP
Suite 1500, 851 SW Sixth Avenue | Portland, OR 97204
Member of Meritas Law Firms Worldwide Meritas.org

AERIAL PHOTO OF SITE: BEFORE AND AFTER DEMOLITION OF EXISTING BUILDING

AERIAL PHOTO OF SITE FROM JUNE 2007

SOURCE: GOOGLE EARTH PRO / 2024 MAXAR TECHNOLOGIES

AERIAL PHOTO OF SITE FROM JULY 2007

SOURCE: GOOGLE EARTH PRO / 2024 METRO, PORTLAND OREGON

Portland Hearings Office
Case #4240010
Bureau Case #LU 23-111784 CU AD
Exhibit #45
Page 1 of 4

2007-128024-000-00-CO

PERMIT

IVR Number	2656790
Permit/Case Type	Commercial Building Permit Storage Demolition
Work/Case Description	DEMO OF WAREHOUSE
Set Up Date	5/07/2007
Under Review Date	5/07/2007
Issue Date	5/07/2007
Final Date	6/07/2007
Latest Activity	6/07/2007
Status	Final Inspection Approved

Activity

Activity	Type	Must Check	Activity Status	Last Activity	Cu
2nd Screen App Set-Up	Application	Y	Approved	05/07/2007	
P & Z - Property Check	Application	Y	Approved	05/07/2007	
Life Safety - Application Check	Application	Y	Approved	05/07/2007	
Intake - DSC	Issuance/Intake	Y	Approved to Issue	05/07/2007	
Assign Reviews - CO	Process Management	N	Open	05/07/2007	
Process Manager	Process Management	N	Completed	05/07/2007	
Point of Contact	Process Management	N	Completed	05/07/2007	
Planning and Zoning Review	Planning and Zoning	Y	Approved	05/07/2007	
Erosion Control Plan Review	Erosion Control	Y	Approved	05/07/2007	
Life Safety Review	Life Safety	Y	Approved	05/07/2007	

Activity	Type	Must Check	Activity Status	Last Activity	Cu
Water Quality Backflow	Water Bureau Review	N	Open	05/07/2007	
Urban Forestry Review	Parks Bureau	Y	Approved w/ Cond	05/07/2007	
Send Letter of intent to expire	Document Management	N	Open	05/07/2007	10
200 Pre-Construction EC	Erosion Control Inspections	N	Approved	10/26/2023	
205 EC Interim Compliance Check	Erosion Control Inspections	N	Open	05/07/2007	
210 Permanent EC Measures	Erosion Control Inspections	N	Approved	05/31/2007	
287 On-Site Stormwater Facility	Inspections	N	Open	05/07/2007	
215 Setbacks	Building Inspections	N	Open	05/07/2007	
220 Footings	Building Inspections	N	Open	05/07/2007	
225 Foundation	Building Inspections	N	Open	05/07/2007	
230 Concrete/Reinforcing	Building Inspections	N	Open	05/07/2007	
235 Slab/Flatwork	Building Inspections	N	Open	05/07/2007	
240 Underfloor/Post & Beam	Building Inspections	N	Open	05/07/2007	
250 Masonry/Reinforcing	Building Inspections	N	Open	05/07/2007	
270 Framing	Building Inspections	N	Open	05/07/2007	
275 Wallboard Attachment	Building Inspections	N	Open	05/07/2007	
277 Ceiling Grid	Building Inspections	N	Open	05/07/2007	
280 Insulation/Vapor Barrier	Building Inspections	N	Open	05/07/2007	
285 Roofing	Building Inspections	N	Open	05/07/2007	
288 Demolition	Building Inspections	N	Open	05/07/2007	
290 Temporary Occupancy	Building Inspections	N	Open	05/07/2007	
295 Other/Consultation	Building Inspections	N	Open	05/07/2007	
996 Issue Certificate of Final Inspect	Final Permit	N	Open	05/07/2007	
999 Final Permit	Final Permit	Y	Approved	06/07/2007	

Please Note: The Current Review Goal Date value could be empty when the Activity Status is listed as Completed or Checksheet, or if the Activity is not required: Must Check column is N

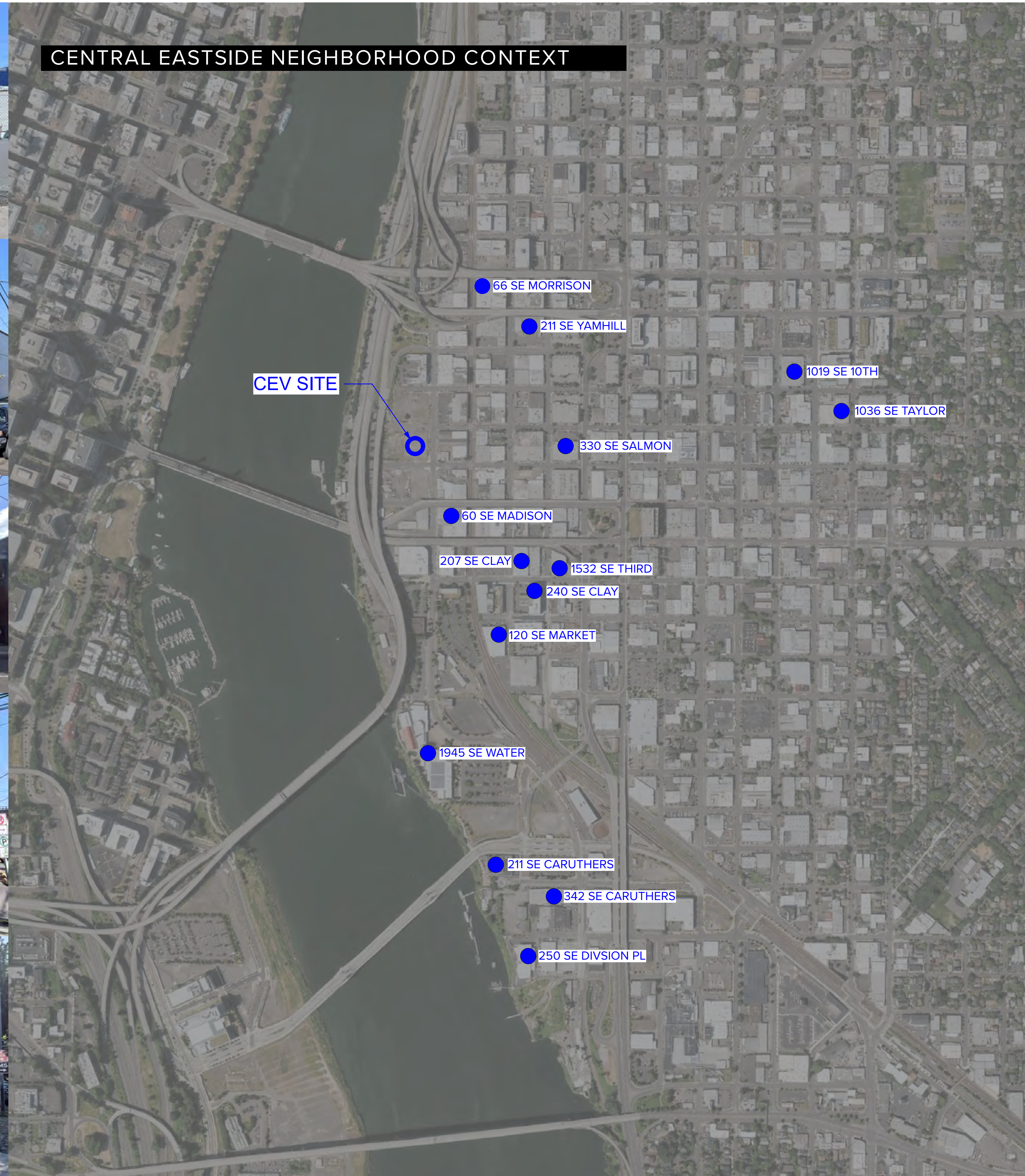

211 SE YAMHILL


330 SE SALMON


60 SE MORRISON


207 SE CLAY


342 SE CARUTHERS




1945 SE WATER


1036 SE TAYLOR


211 SE CARUTHERS

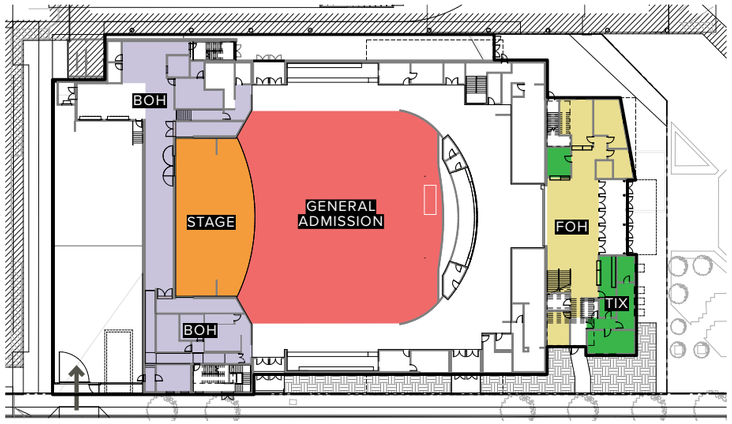

1532 SE THIRD


1019 SE 10TH

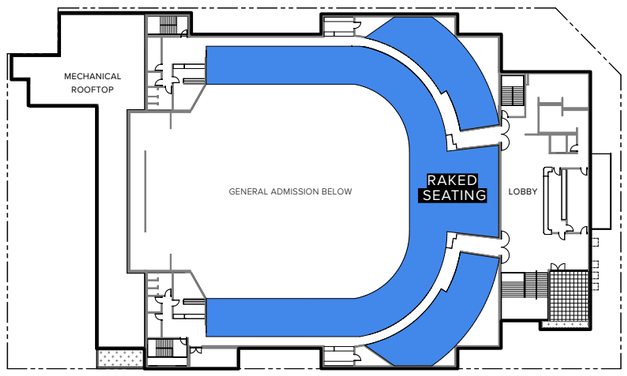

120 SE MARKET

LLOYD CENTER MULTIPURPOSE VENUE

PORTLAND, OR



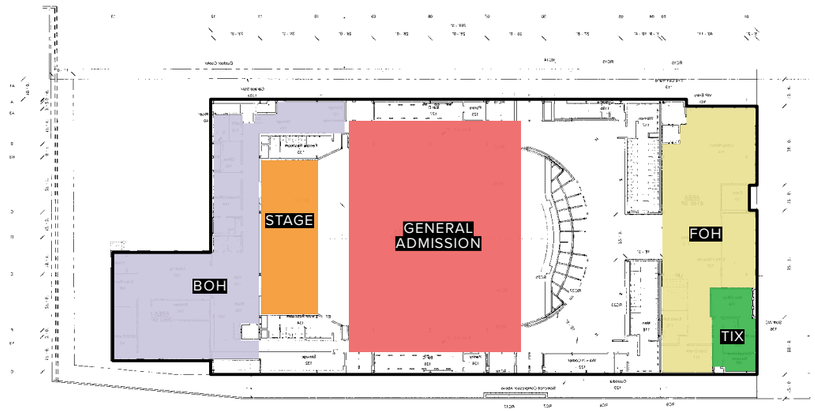
GROUND FLOOR PLAN



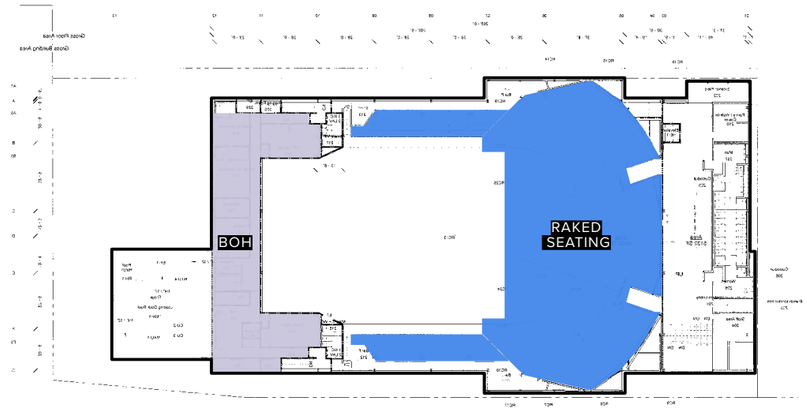
UPPER FLOOR PLAN

MISSION BALLROOM

DENVER, CO

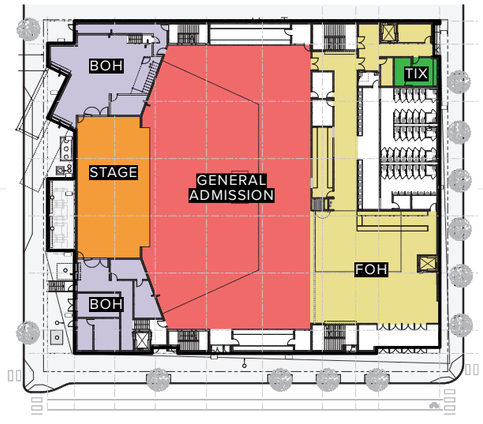


GROUND FLOOR PLAN

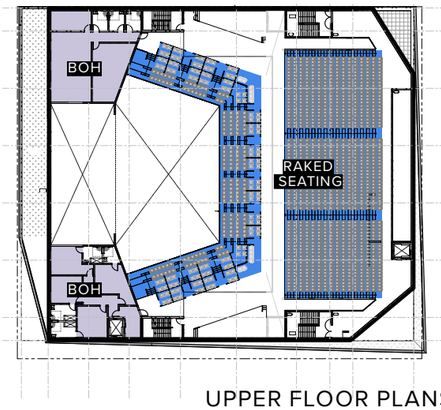


UPPER FLOOR PLAN

CEV - CENTRAL EASTSIDE VENUE



GROUND FLOOR PLAN



UPPER FLOOR PLANS
(MERGED RESERVED SEATING)

VENUE PROGRAM COMPARISON

ALL PLANS SCALED TO 1:900

Portland Hearings Office
Case #4240010
Bureau Case #LU 23-111784 CU AD
Exhibit #46
Page 1 of 1

From: Damien R. Hall <DHall@dunncarney.com>
Sent: Wednesday, July 24, 2024 3:50 PM
To: Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>
Cc: Jonathan Malsin <jonathan@beamdevelopment.com>; Stanley, Suzannah <SStanley@mcknze.com>
Subject: Case No. 4240010 - Central Eastside Music Venue (1 of 4)

Hearings Office Clerk:

On behalf of the applicant in the above-captioned review, please find attached the following evidence submitted in response to submittals between 7.10.24 and 7.17.24.

1. Central City Task Force
2. Central City Recovery Plan
3. CO2 emissions avoided
4. CO2 emissions comparisons

Please don't hesitate to contact me on this matter.

Damien R. Hall
dhall@dunncarney.com
Direct 503.306.5305 | Fax 503.224.7324 | DunnCarney.com

Dunn Carney Allen Higgins & Tongue LLP
Suite 1500, 851 SW Sixth Avenue | Portland, OR 97204
Member of Meritas Law Firms Worldwide Meritas.org

Portland Central City Task Force

Portland Central City Task Force

A transformative effort with business, local, county, state, and federal leaders to revitalize the Central City with actionable strategies.

December 2023

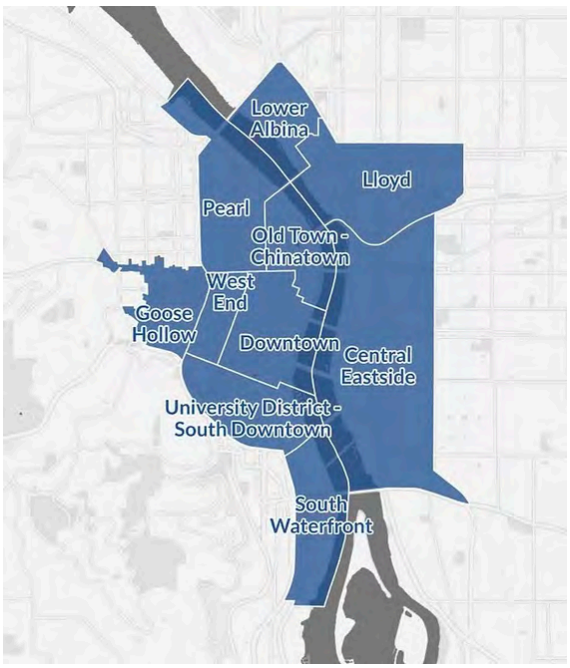
SEE KEY RECOMMENDATIONS HERE

WHY NOW?

> *"Portland is so much more than just a city. Its uniqueness, culture, and spirit are vital not just to those who call the City home, but to the entire state, acting as an economic engine for all of Oregon."*

> *Governor Tina Kotek, Task Force Co-Chair*

The Challenges Facing Central City Portland



In the wake of the COVID-19 pandemic, the transition to remote and hybrid work has disrupted the Central City's key role as a place to work, live, and recreate. In addition to adjusting to the effects of the work-from-home phenomenon, Portland – like all other major cities on the West Coast – is responding to inter-related homelessness, housing affordability, and behavioral health crises. The decline in visitor and employee foot traffic has weakened economic activity and vibrancy across the area's ten neighborhoods – from the Lloyd District to Goose Hollow and Lower Albina to the South Waterfront. ECOnorthwest, a public policy firm headquartered in Portland, briefed Task Force and committee members on the challenges facing Portland's Central City. See the full details here.

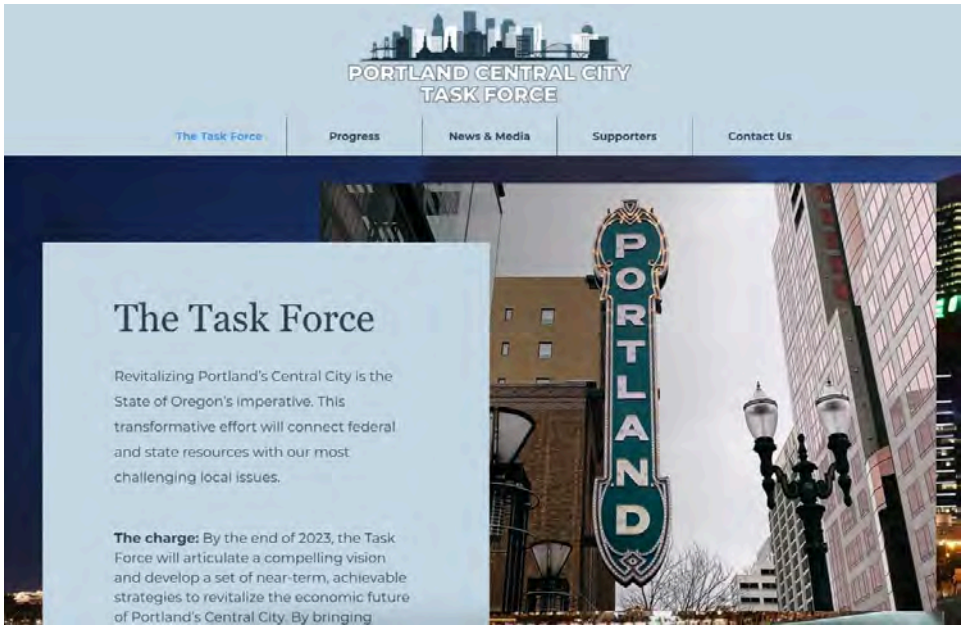
By addressing these issues through strategic and coordinated interventions, we can preserve cherished neighborhoods and accelerate the ongoing economic recovery. This proactive approach will ensure that our Central City's unique charm and appeal to residents and businesses will not only endure but thrive, serving as a vibrant gateway to the region and the state.

WHAT IS THE TASK FORCE?

The Portland Central City Task Force was a forum for elected, business, education, cultural, and community leaders to agree on steps to revitalize Central City Portland in a post-pandemic world. The Co-chairs, Governor Tina Kotek and Standard Insurance Company CEO Dan McMillan, charged the Task Force to articulate a compelling, actionable vision and develop a set of near-term, achievable strategies to revitalize the economic future and well-being of Portland's Central City—from Lower Albina to the South Waterfront and from Goose Hollow to the Lloyd District, and everything in between.

By bringing together a diverse group of federal, state, and local government leaders, in partnership with private and non-profit stakeholders, the Task Force drew upon a wide range of perspectives and expertise to develop concrete recommendations. These measures will address the needs and aspirations of our diverse communities and businesses and can be modeled in other communities facing similar challenges across the state. The challenges that Portland faces are not unique among metro areas around the country, but what will set us apart is our ability to work together to overcome them.

Click here to see the Task Force's website which includes a list of all Task Force members, committees and their charges, and a map of the project area.



Portland Central City Task Force Website

THE WORK

This Task Force did not convene to reflect on the past. Instead, it focused on the goals and vision for the economic future of Portland's Central City.

> *The objective: make a plan to move Portland forward with urgency and clear deliverables that Oregonians can understand, feel, and see with their own eyes.*

This requires action, private-public partnerships, policy changes, and commitments at the city, county, state, and federal level. The co-chairs organized the work in the following five working committees and issued charges to each one.

Value Proposition Committee Charge

Advance a powerful and compelling vision for the future of Portland's Central City and identify key steps needed to achieve it, with a specific focus on employment, housing, shops and restaurants, arts and culture, education, and tourism.

Livable Neighborhoods Committee Charge

Establish key steps to restore Portland as one of the cleanest cities in the US by mobilizing state, metro, and local resources.

Community Safety Committee Charge

Advance an action plan to promptly reduce and prevent crime, specifically crime impacting local retailers and restaurants. Assess the level of resources currently available and address the adequacy of the system, including actions to accelerate capacity where we are currently facing shortfalls.

Housing and Homelessness Committee Charge

Identify underlying issues on the ground that must be addressed before meeting ambitious goals to reduce unsheltered homelessness, as well as what programs and services are needed to meet those needs. Explore roles and responsibilities from public and private entities and the funding necessary to deliver programs and services.

Taxes for Services Committee Charge

Assess the impact of recently enacted and existing regional and local tax measures on the provision of critical services and the City's economic competitiveness, and recommend changes that would improve the public's perceived value of the post-2019 tax-service environment.

Each of the committees met three to four times during July–November 2023 and benefited from rich community input. More than 9,000 people responded to the Task Force's online survey, and nearly 300 Portlanders participated in one of 24 listening sessions that focused on Central City neighborhoods and key topic areas.

Click this link to view the full findings of the Portland Central City Task Force Survey.

THE VISION

Drawing upon the feedback from the listening sessions, the Value Proposition Committee developed the following vision statement for the Central City.

In 2030, Central City is the region's premiere gathering place. Its people and places attract and welcome visitors from across the city, region, state, and the world. They come to attend events, indulge in world-class food, play in the parks, celebrate culture, and cheer on their team. It's a gateway for visitors to Forest Park, the Willamette Valley, mountains, waterfalls, and the Pacific.

It is a hub of innovation and opportunity for a diversity of residents, students, and entrepreneurs. A place where chance encounters spawn new partnerships, where body language completes communication,

where face-to-face connections build trust, and where social integration and education extend networks and create economic opportunity, especially for underrepresented people.

It is home to tens of thousands of Portlanders who value its urban amenities and new supply of affordable housing. The Central City is home to newborns and elders, to students and professionals, and to young families. Everything they need is a short walk or ride away—school, the library, the grocery store, the doctor's office, the playground, the pool.

Central City Portland is where diversity meets innovation and all are welcomed in a world-class urban setting.

What would success look like in 2024?

A Visible Recovery

Everyone feels welcome and safe in public squares, along the waterfront, and in concert halls, arenas, museums, and parks.

Open drug use is rare.

Streets are clean and free of litter, graffiti is abated quickly, and the plywood is gone.

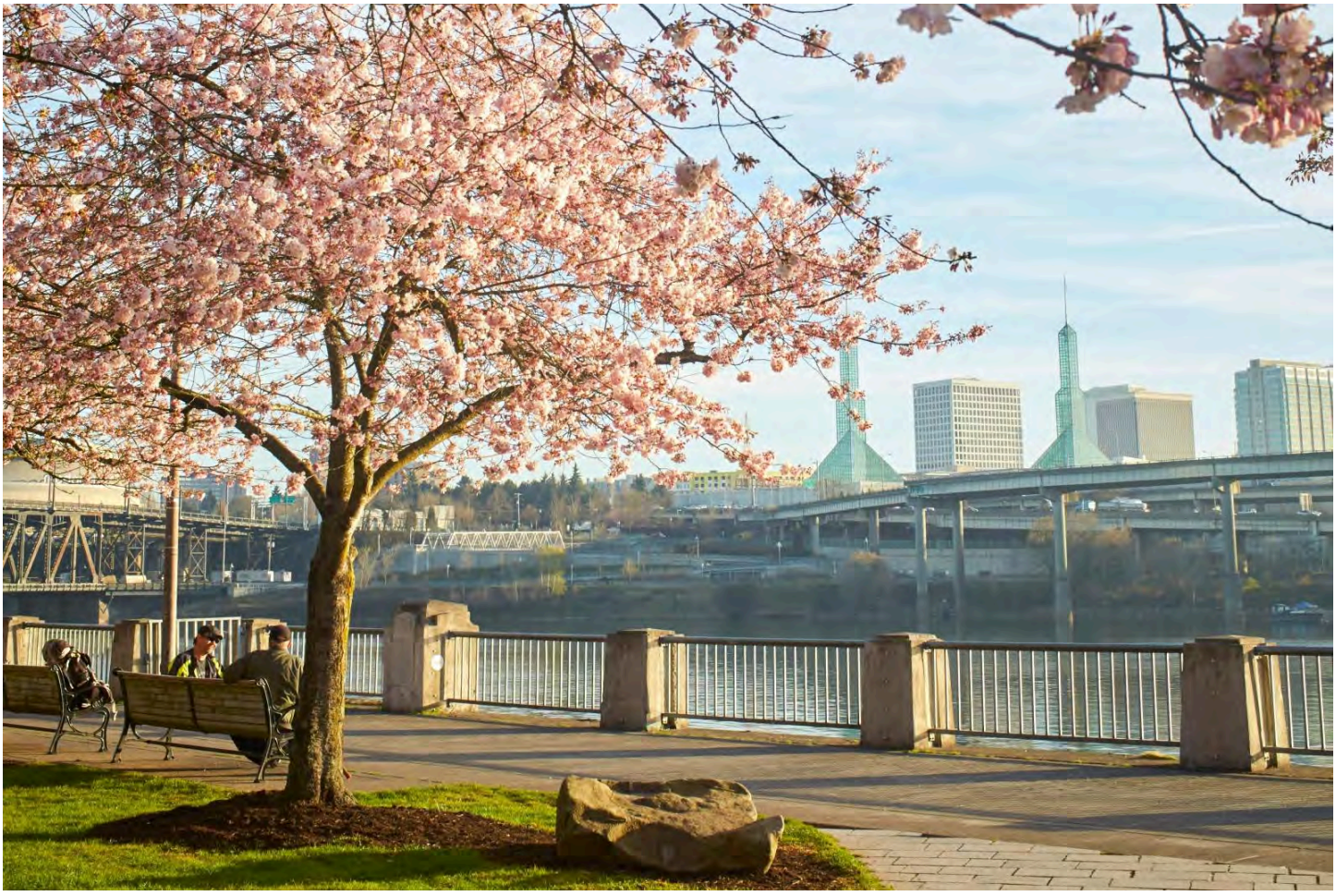
The media, and civic and business leaders, are telling a positive story about Portland's recovery.

Activation and Reconnection

Daily coordinated events and programming are hosted by our arts and cultural institutions.

Artists, pop-ups, new businesses, and educational/recreational uses occupy previously vacant spaces.

Visitors return to Central City, with visitor count tracking with peer cities like Indianapolis, Seattle, and Austin (80-90% recovered from our current 70%).



Investment

Central City Tax Increment Finance District is adopted.

Public and private support increases for arts, innovation, and culture organizations.

A plan to produce housing aligned with the City of Portland's Housing Production Strategy is underway.

> *"Our city, like metro areas across the country, has changed dramatically in a short period of time, and it's time to take the wheel back. History will not define these years by our challenges, but how we overcome them, together."*
>
> *Dan McMillan, Task Force Co-Chair*

The Case for Optimism

The Co-chairs charged the Value Proposition Committee with advancing a compelling vision for the Central City that includes diverse voices. As a first order of business, the committee dubbed itself the "**Optimism Committee**"—and for good reason. Portland has a rich set of assets to work with. Few other cities have worked as hard to complement such a stunning natural setting. City blocks are short, walkable, and human-scale. Trees and green spaces are abundant. Views of the Cascades are protected. Tom McCall Waterfront Park and the Eastbank Esplanade draw people to the river. And how many other central cities can boast salmon and bald eagles?

This special place could serve many purposes well. The pandemic upended a past generation's vision of a heavily worker-focused center. The Optimism Committee sought to accelerate a vision for a new generation. The visioning work drew heavily on insights from 24 listening sessions organized by neighborhoods and key topical areas like housing, arts and entertainment, education, and the future of office work. In each session, participants were asked what success would look like in 2024 and at the decade's end.

RECENT ACTION

Don't Bet Against Portland: Private And Public Action In Late 2023

From the outset, the co-chairs emphasized that the Task Force should be relentlessly action-oriented and should elevate all good work happening in the Central City. Here are some highlights of public and private actions, by the Task Force and the community at large, from the second half of 2023.


OPB DEC. 8, 2023

In The News | Oregon wage theft | Superabundant dispatch | PPS missed days | Rene Gonzalez | Former Alaska Air

POLITICS

Kotek directs Oregon state troopers to crack down on fentanyl distribution

By Dirk VanderHart (OPB)
Sept. 26, 2023 2 p.m. **Updated:** Sept. 26, 2023 4:39 p.m.

The agency says it will move staff and step up patrols to combat the worrisome spread of the drug.

Oregon State Police partners with Portland Police to disrupt fentanyl supply. In late September, the Governor launched a strategic initiative to curb the influx of fentanyl on our streets. The City-State partnership declared some early success, including the October 18th arrest of eight alleged dealers, seizure of fentanyl pills and powder, and recovery of three illegally-possessed handguns. Additional arrests and investigations have resulted from this initiative since that time.

Downtown Clean and Safe activates Director Park. In partnership with the Portland Metro Chamber and the Visit Downtown Campaign, Downtown Clean and Safe launched a retail incubator project in June 2023—a year-long series of exciting activities and pop-ups in Director Park's iconic glass kiosk.

Miller Foundation elevates giving to support struggling arts organizations in Portland and statewide. In September, the James F. and Marion L. Miller Foundation completed one of the largest giving cycles in the foundation's history in recognition of the post-pandemic challenges in the arts in Portland and across the state.

City boosts security at downtown parking lots. The Portland City Council appropriated $2.7 million to fund private security in its four active downtown SmartPark garages.

Governor partners with Union Pacific’s CEO to accelerate trash and graffiti cleanup. The Governor’s transportation advisor is working with Union Pacific representatives to immediately prioritize trash and graffiti removal on the railroad’s rights of way.

TriMet and Multnomah County District Attorney partner to add staff to improve rider safety. A two-year, $2 million agreement provides up to two investigators to help the DA's office assemble evidence and build cases for a sizable number of misdemeanor crimes that would otherwise go unpunished.

Multnomah County Commissioners support Central City Concern. In September, Multnomah County Commissioners voted to approve $1.5 million to expand Central City Concern's Clean Start program.

UnderU4Men, Panic, TriMet, and others take office space downtown. Every new lease helps the long-term office recovery. UnderU4Men (7,300 square feet), Panic (7,000 square feet), and TriMet (95,000 square feet) signed new leases that doubled as bets on the Downtown neighborhood's future.

KEY RECOMMENDATIONS FOR PORTLAND'S COMEBACK

> *"This isn't a government problem and it's not a business problem. It's an all-of-us problem and we're committed to implementing these solutions together."*
>
> *Governor Tina Kotek, Task Force Co-Chair*

Portland—like its neighboring West Coast cities—has been hit by epidemics of fentanyl and rising crime, which have presented challenges across elected leaders, business leaders, and advocates. Since 2020, the national media has repeatedly pointed to Portland to illustrate the range and severity of challenges facing cities in the COVID era. Now is the time to change the narrative through a series of focused, well-executed actions that accelerate aid to those suffering on our streets, rally volunteers to a common cause, hold individuals perpetrating crime accountable, launch an era of equitable housing development, and rebuild towards a shared vision of what our Central City can be.

But we know that storytelling is not enough. Portlanders need to see improvement to believe it. Here are some of the immediate and long-term actions identified by the Task Force that will shape its comeback.

Task Force Recommendations: Actions in Early 2024

Recommendation: Declare a tri-government fentanyl emergency. The State of Oregon, Multnomah County, and the City of Portland should each declare a 90-day emergency on fentanyl and establish a command center within the Central City, led by the State, where daily communication, coordination, and triage of the fentanyl crisis will be carried out. The command center is focused on enhanced coordination and does not change authority or oversight of existing bureau or department management. Community-based providers (including outreach workers and peers), public health efforts, and law enforcement resources across all three governments should be leveraged for this effort, with an emphasis on refocusing existing resources, including expanding hours of

operation during which providers can accept clients, to better meet the Central City's needs and carve out a path to exit the emergency.

Recommendation: Ban the public use of controlled substances and reduce barriers to prosecuting drug delivery. The Legislature should consider legislation to ban public use of controlled substances and to restore law enforcement's ability to prosecute for attempting to deliver controlled substances to another party based on the amount of drugs in possession.

Recommendation: Ramp up existing infrastructure for effective and speedy implementation of a Public Use Ban, pending legislative approval. Ramp up Multnomah County's Promoting Access To Health (PATH) program to meet the needs of Portland's Central City and be at the ready in the event of a statewide public use ban on controlled substances. The program should make an immediate plan to deliver services, offer diversion, provide interventions prior to arrest and booking, and engage clients towards Substance Use Disorder (SUD) treatment, consistent with Seattle's LEAD model.

Recommendation: Focus peer delivered services and street outreach workers in the Central City. Peer delivered services and outreach workers, which will be leveraged under the emergency declaration recommendation above, should be coordinated to focus outreach in the Central City where the need is most acute to yield better client outcomes.

Recommendation: Increase safe and accessible options for unsheltered people. Hundreds of people sleep unsheltered in the Central City and lack adequate daytime safety off of the streets. Daytime services for unsheltered people should be sustained and increased, including exploring options to expand access to publicly available bathrooms and hygiene services. Multnomah County has allocated $3 million towards daytime services that will be procured through early 2024. In early December, the County Chair and Mayor proposed a three-year contract for

the Joint Office of Homeless Services with clear measurable outcomes (50 percent reduction in unsheltered street homelessness in two years), improved data (public budget dashboard, daily shelter bed availability, and quarterly report on goals) and an improved governance structure to address the full Homelessness Response System.

Recommendation: Expand Central City's homeless shelter capacity. Increasing and sustaining shelter capacity is a top priority. Multnomah County is directing $9 million to improve flow-through from existing shelters to permanent housing. Additionally, the County is funding 50 additional shelter pods at existing safe village sites and 300 shelter spaces at two Temporary Alternative Shelter Sites (TASS). They are projected to open in spring 2024.

Recommendation: Further elevate law enforcement response in the Central City. The City and State should

build on recent enhanced patrols action, including the following tactics:

- Extend the additional police presence from the Portland Police Bureau (PPB) and Oregon State Police (OSP) in the Central City into 2024.
- Increase the number of City Park Rangers assigned to Central City parks through April.
- Request that PPB evaluate opportunities for additional utilization of Public Safety Support Specialists to strengthen police response throughout the City while sworn officers are deployed in Central City.
- Immediately amend the Clean and Safe contract to allow flexibility for staffing and deployment of additional crew in the Central City.
- Ensure that the Department of Public Safety Standards & Training (DPSST) maintains the needed class sizes to accommodate the training needs of PPB.

Recommendation: Clean up the city. Conduct community mapping of the Central City's biggest trouble spots, informed by a pilot program developed last fall. With a better-defined problem, we will attract private funding for the City's remarkable volunteer organizations—SOLVE, AdoptOneBlock, and Trash for Peace—to systematically work through a prioritized list of trash and graffiti hotspots. The volunteer work extends into ODOT properties; the agency has recently negotiated streamlined volunteer access to its non-hazardous facilities. Separately, the Governor will seek $20 million in ODOT funding in the 2024 short legislative session starting in February for trash and graffiti removal and prevention. Prosper Portland has also identified up to $500,000 to commission public art investments that celebrate business districts and small businesses, and Clean and Safe will enhance its work in the 213-block core.

Portland Hearings Office
Case #4240010
Bureau Case #LU 23-111784 CU AD
Exhibit #47
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Recommendation: Bring down the 2020-era fences and plywood. The boarded up condition of the Federal Courthouse, The Justice Center, and some downtown businesses sends the wrong signal to visitors. The federal General Services Administration, the County and City, and businesses should prioritize taking down fencing and plywood before the 2024 Rose Festival.

Recommendation: Declare a moratorium on new taxes and offer targeted tax relief. Portland is the second highest taxed city; we trail New York City by only a fraction. Voter-approved measures since 2019 are just beginning to roll out. Given the unexpected revenue these taxes have collected, elected officials should consider a three-year pause, through 2026, on new taxes and fees to allow the new supportive housing, pre-kindergarten, and climate-related programming to fully ramp up. Meanwhile, a Tax Advisory Group should be established to study and evaluate improvements to our taxing structure, and state

and local governments should identify, create, and fund additional targeted incentives, including the expansion of the Business License Tax (BLT) downtown tax credit.

Actions Throughout 2024

Recommendation: Align the County-City vision on a homelessness response strategy and set a timetable for reductions in street and total homelessness. Until recently, the County and City have operated competing homelessness response strategies and neither has expressed a goal around outcomes. The County Chair and Mayor are committed to fully aligning their strategies, reworking a broken intergovernmental governance model, and setting clear goals for reductions in unsheltered homelessness in Central City that are easy for the public and homeless communities to understand.

Recommendation: Accelerate the expansion of substance abuse treatment capacity. Efforts to study or expand treatment capacity must be accelerated in 2024, including:

- Expanding state funding for much needed, residential treatment beds based on the state bed capacity needs study.
- Obtaining state funding for increased sobering, detox, and other treatment services identified through the County's Behavioral Health Emergency Coordinating Network's (BHECN) work.
- Expediting Multnomah County's sobering center design planning.
- Convening existing Metro-area substance abuse disorder providers to explore feasibility and pathways to expedite and expand services.

Recommendation: Activate public spaces with compelling events throughout Central City. Prosper Portland's new Events and Film Office will work to make holding events and ongoing programming more feasible. Ideas generated in the Task Force listening sessions include streamlining permitting, a master insurance policy that smaller organizations can access, sustained multi-year investments in programming, and better coordination among event organizers. Prosper Portland and Travel Portland will work together to pursue Travel Oregon grants to fund activation and programming that attract overnight visitors. The Events and Film office will work to pursue Oregon Parks and Recreation grants to fund amenities in public spaces that could better support events.

Recommendation: Recruit businesses to office spaces, activate vacant storefronts, and lift up Central City's small businesses. Prosper Portland should convene property owners, artists, and small, locally-owned businesses to scale up pop-up spaces for retailers and artists while working on longer-term space activations. Organizations such as Prosper Portland and Business for a Better Portland could convene a working group to explore how to remove barriers to restaurant and mobile food vendor startup and operations in the Central City, such as revisiting permitting/system development charge (SDC) fees and timelines. Key players in the partnerships include: Business Oregon, to provide state incentives to attract and retain business; Prosper Portland, to align newly created initiatives with the Central City Tax Increment Financing (TIF) exploration process; and Greater Portland Inc, to sponsor a national and international "Open for Business" marketing campaign to highlight business openings and

expansions, tourism destinations, and other positive news stories.

The Decade's Work

Recommendation: Build 20,000 housing units in the Central City by 2035. The key to the Central City's current struggles was the over-reliance on office workers to drive activity—especially in the Downtown neighborhood. Neighborhoods across the Central City need resident-to-worker mixes that more closely resemble those in Slabtown, the Pearl, and South Waterfront. The good news is that the Central City is loaded with opportunities, including long-envisioned redevelopments in the Broadway Corridor, Albina, OMSI District, and the Lloyd District.

The Task Force envisions a housing landscape in downtown that stabilizes people and allows them to pursue opportunities. The City and its partners should build upon the recent regulatory relief project and concepts advanced by the Governor's Housing Production Advisory Committee to identify additional regulations that hinder housing development, such as condo defect liability limitations and the City's Fundamental Design guidelines.

Civic leaders must also pay special attention to housing in the Downtown neighborhood where resident-to-worker ratios are among the lowest. Development of the City-owned Morrison Bridgehead should be an imperative, and the City and State should aggressively seek out and incentivize conversions of office buildings to housing.

Recommendation: Make downtown a worthy destination. Downtown Portland does not rank high as a regional tourist destination—because it's built for office

workers. But there is so much potential. A destination-worthy downtown would start with a better activated Tom McCall Waterfront Park that could feature a rethink of the "Concert Bowl," event pavilions, permeable pavers to support year-round events, flexible spaces for recreation, and pop-up food and drink kiosks. The Willamette River is the Central City's comparative advantage, and it needs to be better leveraged with food, entertainment, and river access options. Once off the river, visitors need more reasons to walk into the downtown core. Powell's, Pioneer Square, and the Portland Art Museum are solid attractors, but they need company. The Salmon Street corridor could better connect the waterfront fountain and the Park Blocks. The Old Multnomah County Courthouse and the original U.S. Bank Building are architectural gems that could house food and entertainment options. And the long-envisioned James Beard Public Market must finally be realized.

Recommendation: Aid a sustained, steady office recovery. Hybrid and remote work are here to stay, and the pandemic disruption to the Central City office market will last for years. But the main reason to build concentrated job centers is still here: innovation happens best in person. Private employers will gradually find their ways to the most productive mix of office and remote work, and the Downtown neighborhood should be safe and appealing as many rediscover the importance of face-to-face communication. State and local tax incentives could play an important role in office recovery throughout the balance of the decade.

Recommendation: Support major transportation infrastructure to catalyze development. Realizing transformative Central City redevelopment projects over the next decade will require major infrastructure investments. Given the scale of infrastructure costs and local funding limitations, the City will need match funding

from state and federal partners to move these projects forward with urgency.

Review more detailed recommendations and additional concepts each committee discussed in the Learn More section.

WHAT COMES NEXT?

> *"Create a culture of yes! Cut the fees and red tape for private sector and non-profit initiatives and programming in public space."*
>
> *Parks and Public Realm listening session report out*

The Task Force convened civic leaders, elected officials, and business leaders to tackle our Central City's most urgent challenges. The power of this group was to elevate solutions-oriented discussions that will lead to action. Those same leaders will carry this work forward and new voices will continue to join. The Task Force and its leadership are committed to ensuring effective implementation.

Value Proposition Next Steps

Prosper Portland will integrate many actions alongside its recently adopted Advance Portland Plan, ensuring that the Central City continues an equitable recovery. Other key partners such as Portland State University, OMSI, the Portland Art Museum, and Travel Portland will be instrumental in this work.

Livable Neighborhoods Next Steps

Litter and graffiti cleanup and prevention require public agencies to reorder priorities, better coordinate, and execute basic functions of government. This work also lends itself to public-private sector partnerships and deep civic engagement, such as engaging thousands of volunteers and expanding existing services. Private fundraising efforts to support this work are actively underway.

Community Safety Next Steps

Improving public safety within the Central City will require a significant, coordinated response from the State, County, City, as well as the private sector. Therefore, over the next several months, public safety officials from all levels of government will come together to deploy the necessary public and private sector public safety resources—aimed at improving safety conditions downtown—and provide the support that our City's most vulnerable populations need in order to recover from substance abuse and mental health challenges.

Housing and Homelessness Next Steps

Moving individuals out of homelessness can only be achieved through a strong partnership between the State, Multnomah County, and the City of Portland working towards a unified vision. Through regular coordination of the Multi-Agency Coordination Group and the Joint Office of Homeless Services, there will be continued planning, coordination, and operational leadership to provide strategic coordination, identify resources, and manage goals identified by the Task Force.

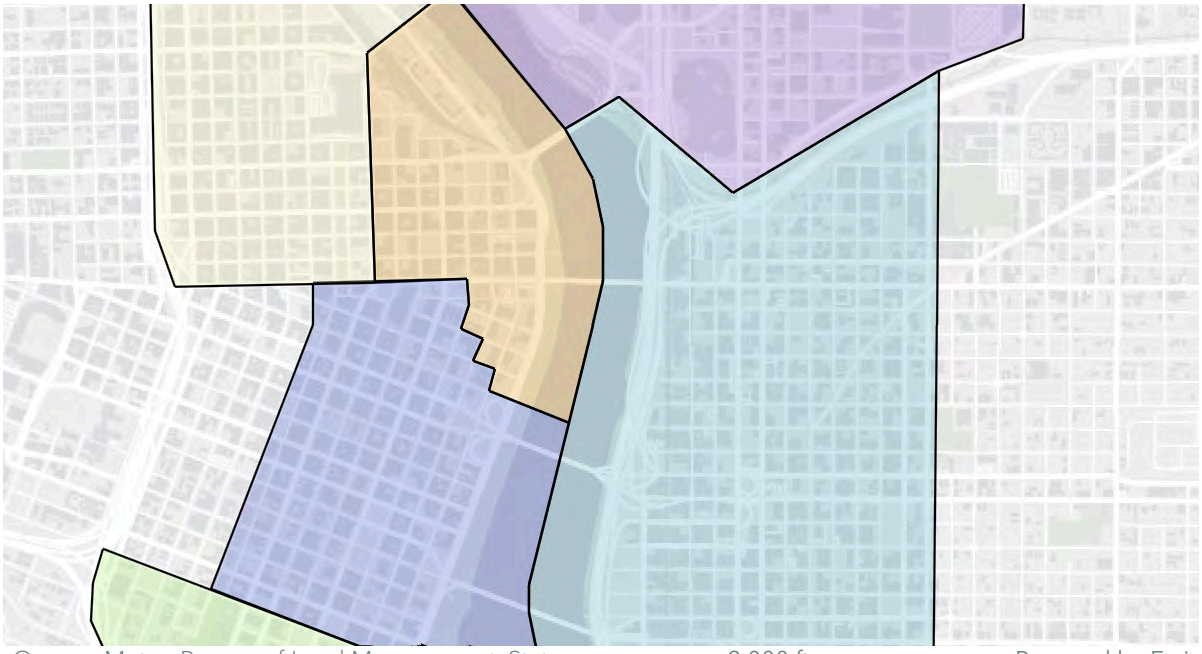
Taxes for Services Next Steps

The recommended Tax Advisory Group will continue the work of this committee over the next several months and coming years. Complex tax rates, initiatives, and structures require meticulous attention before recommending equitable and effective fiscal policies. Fundraising to staff and support this group is actively underway.

What could recovery look like across the Central City?

The Task Force convened listening sessions in key Central City neighborhoods. The following statements summarize the visions developed in those meetings.

Click through the map below to see the statement for these areas of Portland's Central City.



SPECIAL THANKS TO

Governor Tina Kotek, State of Oregon, Central City Task Force Co-Chair

Dan McMillan, The Standard, Central City Task Force Co-Chair

This effort took the collaboration of over a hundred dedicated community leaders committed to revitalizing Portland's Central City. So many that they couldn't fit in one list. **Click below on the arrows to the left and right to**

navigate between the slides and see the full list of Task Force Members, Committee Members, Listening Session Conveners, Project Sponsors, and the Project Team.

Task Force Members

- **Senator Ron Wyden,** US Senate
- **Senator Jeff Merkley,** US Senate
- **Congressman Earl Blumenauer,** U.S. Congressional District 3
- **Congresswoman Suzanne Bonamici,** U.S. Congressional District 1
- **Senator Kate Lieber, Community Safety Co-Chair,** Oregon House District 14, Senate Majority Leader
- **Representative Janelle Bynum,** Oregon House District 39
- **Representative Rob Nosse,** Oregon House District 42

- **Representative Tawna Sanchez,** Oregon House District 43
- **President Lynn Peterson,** Metro
- **Chair Jessica Vega Pederson, Housing and Homelessness Committee Chair,** Multnomah County
- **Mayor Ted Wheeler,** City of Portland
- **District Attorney Mike Schmidt,** Multnomah County
- **Oscar Arana,** Native American Youth and Family Center (NAYA)
- **Candace Avalos,** Verde
- **Kimberly Branam,** Prosper Portland
- **Jessie Burke,** Society Hotel
- **Kimberly Cooper,** Fortuna Group
- **Kathryn Correia,** Legacy Health
- **Graciela Cowger,** Schwabe
- **Patrick Criteser,** Tillamook County Creamery Association
- **Ann Cudd,** Portland State University
- **Nicole Davison León,** Hispanic Metro Chamber
- **Stacey Dodson,** US Bank
- **Brian Ferriso,** Portland Art Museum
- **Ernesto Fonseca,** Hacienda CDC
- **Robert Gootee,** Moda Health
- **Erin Graham,** Oregon Museum of Science and Industry
- **Stephen Green,** Business for a Better Portland
- **Dewayne Hankins,** Portland Trail Blazers
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- **Andrew Hoan,** Portland Metro Chamber
- **Duncan Hwang,** Metro Council, and Asian Pacific American Network of Oregon
- **Renée J. James,** Ampere Computing
- **Cobi Lewis,** Micro Enterprise Services of Oregon
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- **Jan Mason**, Mackenzie, Philippine American Chamber of Commerce of Oregon and Greater Portland Economic

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- **Jeff Miller,** Travel Portland
- **Andy Mendenhall,** Central City Concern
- **Lance Randall,** Black Business Association of Oregon
- **Curtis Robinhold,** Port of Portland
- **Lisa Schroeder,** Mother's Bistro
- **Robert Stuart, Community Safety Co-Chair,** President and CEO, OnPoint Community Credit Union
- **Vanessa Sturgeon, Livable Neighborhoods Committee Chair,** TMT Development
- **Michelle Weisenbach,** Wells Fargo Commercial Banking, Greater Portland Inc Chair
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- **Oscar Arana,** NAYA
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- **Nicole Leon,** Hispanic Metropolitan Chamber
- **Ernesto Fonseca,** Hacienda Community Development Corporation
- **Lisa Abuaf,** Prosper Portland
- **Peter Platt,** Andina Restaurant
- **James Alan Parker,** Northwest Native Chamber
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- **Carrie Hoops,** Miller Foundation
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- **Jonathan Malsin,** Beam Development
- **Craig Stroud,** Oregon Convention Center
- **Anna Truxes,** Portland Chinatown Museum
- **Tom Kilbane,** Urban Renaissance Group

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- **Jessie Burke,** Society Hotel
- **Duncan Hwang,** Metro / APANO
- **Kimberly Cooper,** Fortuna
- **Curtis Robinhold,** Port of Portland

- **Ken Thrasher,** NW Community Conservancy
- **Kris Carico,** Solve
- **Rian Windsheimer,** Oregon Department of Transportation Region 1
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- **Margi Bradway,** Multnomah County
- **Mark Wells,** Downtown Portland Clean & Safe
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- **JC Vannatta,** TriMet
- **Alondra Flores Avina,** Trash 4 Peace
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- **Rob Stuart, Committee Co-Chair,** OnPoint Credit Union
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- **Ellen Rosenblum**, Oregon Attorney General
- **Mike Schmidt,** Multnomah County District Attorney
- **Judge Cheryl Albrecht,** Multnomah County Circuit Court
- **Nicole Morrisey O'Donnell,** Multnomah County Sherriff
- **Mayor Ted Wheeler,** City of Portland
- **Chief Bob Day,** Portland Police Bureau
- **Candace Avalos,** Verde
- **Patrick Criteser,** Tillamook County Creamery Association
- **Lisa Schroeder,** Mother's Bistro
- **Stacey Dodson,** US Bank
- **Jeff Miller,** Travel Portland
- **Mike Myers,** Community Safety Division
- **Tom Kearney,** Slalom

- **Andy Ko,** Partnership for Safety and Justice
- **Laura Brown,** Central City Concern
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- **Superintendent Casey Codding,** Oregon State Police
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- **Elizabeth Nye,** Lan Su Chinese Garden
- **Terrance Hayes,** Community Member
- **Lamar Wise,** American Federation of State, County, and Municipal Employees (AFSCME)
- **Andrew Wilson,** TriMet
- **Aaron Schmautz,** Portland Police Association
- **Jay Scroggins,** Multnomah County Department of Community Justice
- **Ron Williams,** Health Justice Recovery Alliance
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- **Kim Malek,** Salt and Straw
- **Alix Nathan,** Mark Spencer Hotel
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- **Mindy Stadtlander,** Health Share of Oregon
- **Lisa Clark,** Petunias Pies and Pastries

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- **Chair Vega Pederson, Committee Chair,** Multnomah County
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- **Commissioner Dan Ryan,** City of Portland
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- **Kathryn Correia,** Legacy Health
- **Andy Mendenhell,** Central City Concern

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- **Felisa Hagins,** SEIU 49
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- **Roderick B. Cruickshank,** Portland Rescue Mission
- **Mitch Hornecker,** Here Together
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- **Scott Kerman,** Blanchet House
- **Andy Nelson,** Impact NW
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- **Julie Livingston,** Home Forward
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Taxes for Services

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- **Senator Ron Wyden,** US Senate
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- **Steven Green**, BBPDX
- **Robert Gootee,** Moda Health
- **Lance Randall,** Black Business Association
- **Cobi Lewis,** MESO
- **Michelle Weisenbach,** Wells Fargo Commercial Banking / GPI Chair
- **Nkenge Harmon,** Urban League
- **Renee James,** Ampere
- **Gracielle Cowger,** Schwabe
- **Andrew Hoan,** Portland Metro Chamber
- **Dave Anderson,** NW Natural
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- **Jessica Curtis,** Pioneer Square
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- **Sierra Gardiner,** Walker Macy
- **Michele Gila,** Portland Metropolitan Association of Realtors
- **Randy Gragg**
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- **Molly Hogan,** Welcome Home Coalition
- **Connie Hotovec,** Gensler
- **Lorelei Juntunen,** ECOnorthwest
- **Natalie King,** Trailblazers

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- **Stanley Perkin**
- **Erin Reome,** American Institute of Architects Urban Design Panel
- **Owen Ronchelli,** Go Lloyd
- **John Tapogna,** Oregon Business Council
- **Mike Thelin,** Bolted Consulting
- **Ken Thrasher,** Northwest Community Conservancy
- **Steve Tritz,** OMSI
- **Winta Yohannes,** Albina Vision Trust

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- **Tim and Mary Boyle**
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- **Regence BlueCross BlueShield**
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- **200 Market Building**
- **Comcast**
- **Downtown Development Group LLC**
- **Jon V. Jaqua and Kimberly Cooper Fund of the OCF**
- **Pacific Office Automation**
- **Slalom**
- **Wells Fargo**

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- **Camille Trummer,** Social Impact Consultant and Facilitator, Camille E. Trummer Consulting
- **Lizzy Atwood Wills,** Senior Strategist, InCommon
- **Kayla Thomet,** Director, Digital Communiation, Oregon Business Council
- **Travel Portland Asset Library**

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- **Wendy Beth Oliver,** Chief Legal Officer, OnPoint Credit Union
- **Mike Pergam,** Senior Principal, Slalom
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- **Stephen Watson,** Caucus Administrator and Chief of Staff to Senator Katie Lieber

Housing & Homelessness Committee

- **Madeline Baron,** Senior Project Manager, ECOnorthwest
- **John Tapogna,** Consultant, Oregon Business Council
- **Matthew Tschabold,** Housing Advisor, Housing and Homelessness
- **Jeston Black,** Director of Government Relations, Multnomah County
- **Stacy Bork,** Senior Policy Advisor, Multnomah County

Livable Neighborhoods Committee

- **Brittany Bagent,** Project Director, ECOnorthwest
- **Kelly Brooks,** Advisor, Transportation and Infrastructure, Office of Governor Tina Kotek
- **John Tapogna,** Consultant, Oregon Business Council

Taxes for Services Committee

- **Brittany Bagent,** Project Director, ECOnorthwest
- **Vince Porter**, Advisor, Economic Development and Workforce, Office of Governor Tina Kotek
- **Dr. Michael Wilkerson,** Senior Economist, ECOnorthwest

Value Proposition Committee

- **Emily Picha,** Project Director, ECOnorthwest
- **Vince Porter,** Advisor, Economic Development and Workforce, Office of Governor Tina Kotek

LEARN MORE

- **Data presentation.** All Task Force and Committee members were invited to a webinar to learn about Portland Central City's conditions and challenges. Data and findings included in this presentation were used as a foundation for all committees. *See the Portland Central City data presentation here*.
- **Portland Central City Task Force Survey results.** Over 9,000 individuals responded to a survey asking respondents about their top priorities, favorite amenities, as well as their ideas about solutions to revitalize Central City. *See the Portland Central City survey results*
- **Value Proposition Committee Report and Full Recommendations** *See the final document.*
- **Livable Neighborhoods Committee Report and Full Recommendations** *See the final document.*
- **Community Safety Committee Report and Full Recommendations** *See the final document.*
- **Housing and Homelessness Committee Report and Full Recommendations** *See the final document.*
- **Taxes for Services Committee Report and Full Recommendations** *See the final document.*

How can you support Central City's recovery?

Visit our project website for everyday actions and bigger lifts such as sponsorship opportunities for individuals and businesses.

Do you want to stay informed with this work? Contact us!

Portland’s Central City Recovery Plan

Information

The primary goals of the Central City Recovery Plan are to ensure the cultural center and economic engine of our city and state can be a safe and welcoming place for all people to live, work, and visit.

Portland’s Central City Recovery Plan includes immediate impact actions like community safety interventions, generating more events and public activations, and encouraging returning workers. It also includes longer-term strategies to transform and reinvent the Central City into a place that has more housing within walkable and sustainable neighborhoods that are rich with arts, culture, and entertainment.

Many of the activities summarized below have been ongoing and continue today. The purpose of this plan is to share information about what the City government has done and will do, and to invite engagement in what we can do together to recover our Central City, a critically important place in our community.

For our goal to be reached, we must humanely and effectively address the homelessness, behavioral health, and substance use disorder crises that plague our streets. The City is making historic budgetary investments and implementing each of the five resolutions to connect homeless people to services while accelerating the production of affordable housing and other continuum of care resources. For us to improve community safety throughout our city, we must continue the re-

staffing of the Portland Police Bureau while we drive foot traffic and activation of public spaces in our urban center.

Short-Term/Urgent Impact Activities and Progress

Ongoing - one-year results

Community Safety:

- Mayor Wheeler committed to hiring 300 new Police Bureau personnel over three years: 200 sworn officers and 100 public safety specialists.
  Since January 2022, PPB has hired over 250 new staff, including nearly 150 sworn officers, 26 PS3s, and dozens of professional staff, including background investigators, records staff, and analysts. We look forward to continuing this strong recruiting and hiring trend.
- While our new hires work to complete their training, PPB's downtown Bike Squad has welcomed additional support from Oregon State Police troopers on PPB's enhanced patrols. In 2023, Central Precinct's Bike Squad has made over 300 arrests, issued over 700 Measure 110 citations, and seized over 200,000 fentanyl pills.
- Portland Police are continuing increased central city patrols with specialized details like the Entertainment District detail, which brought the Entertainment District from the highest incidence of gun violence in Portland to one of the lowest.
- In partnership with other law enforcement agencies, PPB is leading targeted task forces and retail theft missions, and other targeted efforts to address problematic locations.
- PPB continues to increase the visibility of patrols and citation issuance for drug-related offenses as well as bringing back the Traffic Enforcement Unit for additional presence throughout the city.
- In late 2023, PPB stepped-up walking patrols in downtown Portland, with eight officers initially dedicated to the program.
- In Fall 2023, the City of Portland co-led the formation of and contributed to a new $1M public-private partnership that created a hotel security district, adding eight new private security patrols, with further 24/7 coverage in key areas of downtown.

- City Council approved a $6.4M contract for GardaWorld to provide enhanced security services for SmartPark parking garages. This security service will coordinate with Downtown Clean & Safe's security contract.
- Portland City Council unanimously passed a Resolution and an Ordinance to affirm their commitment to partner and collaborate with state leaders on the drug crisis. You can read about the Ordinance and Resolution here.
- Additionally, City Council approved an emergency ordinance to include *consumption of a controlled substance* to the City ordinance which already prohibits public consumption of alcohol. The prohibition on public consumption of controlled substances will go into effect immediately upon authorization by the Oregon Legislature or court action.
- Mayor Wheeler declared a state of emergency to address the fentanyl crisis on January 30, 2024 alongside Governor Tina Kotek and Chair Jessica Vega Pederson. Each declared a 90-day state of emergency to address the public health and public safety crisis driven by fentanyl in Portland's Central City.

Homeless Services:

- The goal of the City's homelessness response is to connect people living on the streets to needed services and sheltering while accelerating the production of affordable housing. This work has included over 3,000 camp removals in the last year where individuals are simultaneously offered shelter and supportive services.
- The City opened the first Temporary Alternative Shelter Site (TASS) in July, with approximately 180 guests living in pods currently and over 100 individuals placed into housing as of early February 2024.
- In October, the Mayor announced the second TASS location on North Portland Road. Plans are being developed for additional TASS sites across the city.
- Between TASS and the Safe Rest Village program, the City is now operating service intensive shelter for over 500 individuals, with plans to provide additional shelter spots.

Public Environment Management Office (PEMO)'s Livability-Focused Work:

- Since the Mayor's creation of PEMO, over 300,000 square feet of graffiti has been cleaned, much of this work focused in the Central City.
- Public sidewalk sanitation - enzyme cleaning and biohazard cleanup.
- Stabilizing hard spaces for public safety.
- Modifying right-of-way parking (new bus hotel zone).

- Partnered with Downtown Clean and Safe, Old Town Community Association, Travel Portland, and others to create wayfinding sidewalk graphics to increase foot traffic and spur exploration of Downtown by visitors and Portlanders.
- Continued to invest in additional lighting to support public safety and clean, welcoming spaces for pedestrians.
    - Lighting initiatives include Project Illumination in the Central City, the extended Winter Lighting Festival, as well as the installation of permanent fixtures throughout the Central City.
- In all, PEMO's work has resulted in the lighting of 75 blocks, about 1,000 trees, and 6 downtown parks.
- PEMO has collaborated with artists to create murals in multiple locations throughout the city, including the Central City, with additional murals to come.
- Public Dumpster Days, in coordination with the Bureau of Planning and Sustainability.
- PEMO has continued to partner with public and private stakeholders to activate new spaces and deliver livability-related solutions across the Central City.
- PEMO convenes problem solver meetings to listen to residents, businesses, and community organizations while collaborating on responsive solutions. There are four recurring meetings focused on the Central City alone.
    - If you are interested in attending, please email PEMO@portlandoregon.gov.

Events and Public Activations:

- Through the City's new Events Office, the City is providing grant subsidies, permitting navigation support, and private sector collaboration with leading organizations like Travel Portland and Sport Oregon to attract and grow events in our urban core. In 2023, the Events Office invested more than $260,000 into events aimed at bringing people into the Central City.
- Examples of events supported by the office include:
    - The Portland Ice Rink and Woodsy Winter Village which was extended by popular demand through February 11, 2024.
    - The Portland Winter Light Festival which in 2023 brought an estimated economic impact of $4.4 million and an attendance of 208,000.

Programming Central City Parks and Public Spaces to Generate Positive Foot Traffic and Activation:

- Building collaboration between Downtown Clean and Safe and Portland Park Rangers to ensure that safety and cleanliness can be maintained in parks. More food trucks are to be permitted to operate in the Central City, supplementing City support to food cart pods.

Expanding Public Plazas and Healthy Business Permits:

- The Portland Bureau of Transportation will continue to identify and develop pedestrian friendly plazas to create community meeting places that support local businesses.
- Healthy business permits have been made permanent on an affordable and accessible basis so that restaurants may continue to operate in certain parking spots and rights of way.

Returning Workers:

- As of May 11th, nearly all City workers who had been hybrid will be required to work for at least 20 hours per week in-person. The City continues to encourage all other employers to bring workers back to offices. City Council funded the "Every Wednesday Campaign" which uses local media to promote return to work, by sharing information about dining, arts, and cultural activities that make the Central City an attractive destination.
- Mayor Wheeler has called on employers to bring their employees back into the office at least half-time by January 1st of 2024.

Enhanced Service District Collaboration:

- Coordinating City-led safety and cleanliness efforts with the services delivered by Downtown Clean & Safe, Central Eastside Together, and GoLloyd's enhanced service districts. These districts are key partners in City-led efforts to maintain cleanliness and livability throughout these areas of the Central City. These districts are key partners in executing 90-day Reset Plans in Old Town and the Central Eastside Industrial District in order to address safety and livability issues and empower local businesses and residents.

Direct Business Assistance Via Repair Grants and Stabilization Grants:

- Prosper Portland will continue to disburse direct grants to small businesses that experience property damage or need security infrastructure to prevent

theft or break-ins. Prosper Portland has disbursed over $1.8M in repair grants to over 500 small businesses since 2020. The Mayor's Office, together with ESDs and City bureaus, has an open door to all businesses in need of varying types of direct support. We continue to work individually and closely to deliver solutions to employers and employees in need.

Medium and Longer-Term Impact Activities and Progress

1-3 year results

Housing Regulations Including Inclusionary Zoning:

- The City completed an analysis of regulatory burdens that may inhibit housing production, including in the Central City. The City also completed a calibration study of the current inclusionary housing policy in order to pursue reforms that better target this policy. The findings prompted the development of code changes to reduce costs and timelines for housing construction.

Office Conversion Incentives:

- The City has passed a package of incentivizes to encourage office conversions to residential uses in the central city, and is actively advocating for additional support from county, state, and federal partners. The City is seeking other adaptive reuses of vacant office spaces such as childcare services, art exhibits, and more.

Central City TIF District:

- The City is evaluating, with a steering committee actively meeting, the opportunity to create a new tax increment financing (TIF) district in the Central City in order to dedicate a revenue source to support affordable housing, public right-of-way improvements, retail re-tenanting efforts, and to spark redevelopment projects and mixed used vibrancy.
- Portland City Council passed a resolution in 2023 to help begin the establishment the Central City TIF District.

Incentivizing Commercial Lease Renewals:

- Portland City Council unanimously passed a business tax incentive to encourage businesses to lease office and retail space. The first of its kind program has already received 20 applications and additional enhancements are under consideration based on performance data.

Enhanced Service District Coverage:

- The City is assessing the viability of extending the security and cleaning services that ESDs deliver into adjacent neighborhoods within the central city.

Attracting Quality Jobs:

- Portland City Council unanimously passed three resolutions that will expand the Enterprise Zone program, which is locally and nationally recognized as an innovative tax incentive tool to help businesses grow in an inclusive way.

Addressing Impact of Taxation & Fees:

- Mayor Wheeler has formed a taskforce to address the collective impact of taxes, rates, and fees in the Portland region.

Central City Task Force

- Mayor Wheeler is supportive of the recommendations made by the Portland Central City Task Force in December 2023, including the key recommendation to bring down 2020-era fences and plywood before the 2024 Rose Festival.

Added Steel

	Cost	% of cost as material
Footings	167,488	15%
Girder	475,133	60%
Columns / Beams	315,007	60%
Ground Improvements	321,147	10%
Total		
CO2 release (in tons)	1.89	418.96

Added Concrete

	Cost	CY
Footings	167,488	209
Ground Improvements		80
Total		289
% Cement in Concrete	15%	43.40
Conversion to tons (using density of cement at 1500 kg/m3)		49.78
CO2 release (median, in tons)	0.776	38.63

Cost of Material	Cost per lb		lbs of material	Tons
25,123	$	0.75	33,498	**15**
285,080	$	1.15	247,895	**112**
189,004	$	1.15	164,351	**75**
32,115	$	0.75	42,820	**19**
				222

These comparisons below help to put the emissions in perspective by relating them to everyday activities and common sources of CO2 emissions. **The release of 456 tons (or metric tonnes) of CO2 is equivalent to several activities & emissions sources:**

Passenger Vehicles
Driving a typical passenger vehicle for about 1,130,400 miles (approximately 1,821,000 kilometers). This is based on the average emissions of a passenger vehicle being about 0.404 metric tons of CO2 per 1,000 miles.
https://www.epa.gov/greenvehicles/greenhouse-gas-emissions-typical-passenger-vehicle

Residential Electrical Consumption
The annual electrical use of approximately 90 average American homes. This is based on the average annual CO2 emissions from home electrical use being about 5.067 metric tons per home per year.
https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references

Barrels of Oil
Burning around 1,057 barrels of oil. Each barrel of oil burned emits approximately 0.43 metric tons of CO2.
https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references


DEAD
END
SKUNK
STP


CENTRAL CITY
CONCERN
HOMES HEALTH JOBS


CAUTION
THIS VEHICLE
MAKES
FREQUENT STOPS


PRATT & LARSON TILE


NOTICE OF PUBLIC HEARING
EASTBANK COMMERCE


PAY TO PARK
ALL HOURS
DEAD
END


BURBACK MOTORS
2 HOUR VISITOR PARKING
EXCEPT BY ZONE PERMIT
R R
R R


SE Water Av
DEAD END


CENTRAL EASTSIDE
EASTBANK COMMERCE CENTER
PRATT & LARSON TILE

CENTRAL EASTSIDE
-PDX-
SE Salmo 1200 St
SE Water 100 Av
SUPERIOR
503-760-7725
POSTED

Salmon 1200 St
SE Water 100 Av
STOP
DEAD END


SE Water Ave


ON TILE
For Lease
Renovation Starts Here!
FLOORS
Speeds
AUTO BODY
CENTRAL EASTSIDE
SE Salmon
DEAD
END


DEAD
END
FOUR
VISITOR
PARKING


1300
SE MAIN ST
CARPET TILE STONE
FLOORS
DISCOVERY
JLR 39

From: Damien R. Hall <DHall@dunncarney.com>
Sent: Wednesday, July 24, 2024 3:57 PM
To: Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>
Cc: Jonathan Malsin <jonathan@beamdevelopment.com>; Stanley, Suzannah <SStanley@mcknze.com>
Subject: Case No. 4240010 - Central Eastside Music Venue (4 of 4)

Hearings Office Clerk:

On behalf of the applicant in the above-captioned review, please find attached the following evidence submitted in response to submittals between 7.10.24 and 7.17.24.

1. Email dated 7.23.24 from P. Greene
2. Technical Memorandum
3. Venues adjacent to rail
4. Email dated 7.24.24 from C. Karas

Please don't hesitate to contact me on this matter.

Damien R. Hall
dhall@dunncarney.com
Direct 503.306.5305 | Fax 503.224.7324 | DunnCarney.com

Dunn Carney Allen Higgins & Tongue LLP
Suite 1500, 851 SW Sixth Avenue | Portland, OR 97204
Member of Meritas Law Firms Worldwide Meritas.org

Damien R. Hall

From: Preston Greene <PGreene@omsi.edu>
Sent: Tuesday, July 23, 2024 9:58 AM
To: Jonathan Malsin
Subject: OMSI Visitor Information and Train Impact to Operations and Safety

Follow Up Flag: Flag for follow up
Flag Status: Flagged

Jonathan,

Wanted to provide a summary OMSI visitor statistics, peak times, and operational interactions with Union Pacific Rail, for the record in your land use hearing.

OMSI Visitor Statics: In 2023, OMSI had approximately 1.1 million visitors. For 2024, we are expecting about 1.25 million visitors. At our peak in 2018, OMSI served approximately 1.35 million visitors annually. OMSI is open 363 days a year and hours vary seasonally, generally serving the public from 9 am – 10:30 pm through museum, theatre, programing, and event activity.

OMSI Peak Arrivals: OMSI experiences peak times when thousands of people arrive within a 30-minute period. This typically occurs Saturday and Sunday from 9-10 AM and weekdays when local schools are not in session. Additionally, OMSI intakes field trips daily accommodating bus parking for 3-15 buses daily. Additionally, every weekday morning during the summer, we intake approximately 500 children in addition to our regular museum admissions and those children are picked up at 3:00. We also run programming such as OMSI after dark with average attendance near 2,000 people in which most attendees arrive between 6-7 pm.

OMSI Operational Impacts and Interactions with Union Pacific: In OMSI's history at 1945 SE Water, we have not had an accident with a visitor and the train. Union Pacific and Amtrack strictly enforce their speed policy and alert systems when traveling through the neighborhood which contributes significantly to a safe operating environment in the area. Operationally, it can slow traffic to the museum; however, it is part of the neighborhood culture and history and we have worked with the issue operational throughout OMSI's history on the site. OMSI does not see a significant operational impact from the rail operations. As a cultural destination, where people spend on average over 3 hours at the museum it is an accepted part of neighborhood and traffic patterns in the area.

Preston C. Greene
Vice President of Real Estate

Oregon Museum of Science and Industry
1945 SE Water Avenue

Portland Oregon 97214
Epgreene@omsi.edu | P (503) 797 4528 | W omsi.edu

TECHNICAL MEMORANDUM

DATE: July 24, 2024

TO: Jonathan Malsin | Beam Development

FROM: Kevin Chewuk | DKS Associates

SUBJECT: Portland Workshop Blocks Venue
Transportation Impact Study Public Testimony Responses

RAIL CROSSINGS

Standard protective devices at rail crossings in Oregon are installed and maintained by the railroad per OAR 741-110-0020 through 741-110-0090 and 741-115-0010 through 741-115-0080 consistent with the Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD). The crossing characteristics near the proposed venue are documented in the TIS at SE Stark Street, SE Yamhill Street, SE Salmon Street, SE Main Street and SE Clay Street (see page 6 of the TIS), and include advance warning pavement markings and signage, and post mounted flashing light signals, automatic gates and supplemental signage indicating the number of tracks at the crossing, with the crossing at SE Clay Street also including flashing-light signals on cantilevered supports. According to the MUTCD Section 8D.02 (Flashing-Light Signals), these existing safety devices "indicate to motorists, bicyclists, and pedestrians the location of a grade crossing." These grade crossings also include nearby illumination to provide light during hours of darkness.

Note that existing cyclist and pedestrian overcrossings of the railroad are also available at SE Belmont Street to the north and SE Madison Street to the south of the proposed site (i.e., distances of less than 1/4 mile), and can be accessed via stairs from SE Water Avenue or ramps from the Eastbank Esplanade.

As noted in the TIS, there were three reported incidents in the past five years at the Union Pacific study rail crossings, including two at the SE Salmon Street and one at the SE Clay Street crossings (see pages 9-10 of the TIS). Two of these incidents were caused by pedestrians ignoring the flashing light signals and audible warnings (one each at the SE Salmon Street and SE Clay Street crossings), while the third was a reported pedestrian suicide at the SE Salmon Street crossing.

Safety at the study rail crossings was analyzed by estimating future accident frequency and the corresponding predicted interval between accidents with and without the proposed venue using the

U.S. Department of Transportation Accident Prediction and Severity (APS) model[1]. This model accounts for accident history and frequency of trains at existing at-grade crossings, volume of vehicle traffic, existing safety devices at the at-grade crossings, and other factors to determine the potential impacts of an increase in traffic. Other physical factors that affect the frequency of collisions at a crossing, such as available sight distance, approach grade, or vehicle storage between adjacent intersections, are not captured in this model. This analysis provides a frame of reference for crossings by estimating accident probability but does not identify these crossings as safe or unsafe. The Railroad-Highway Grade Crossing Handbook[2] indicates that active devices with automatic gates, or grade separation should be considered as options when certain criteria are met. One criterion is if the expected accident frequency for active devices with gates, as calculated by the U.S. Department of Transportation Accident Prediction formula, exceeds 0.50 (i.e., a predicted interval between accidents of 2 years at a crossing) then grade separation should be considered[3]. Since the current safety protection for each at-grade study crossing includes active devices with automatic gates, a safety impact for the purpose of this analysis was defined as a study crossing that would have an expected accident frequency above 0.50 in the 2025 Build scenario that would be at or below 0.50 in the 2025 No-Build scenario.

The predicted accident probability based on current safety protection for each at-grade study crossing is summarized in Table 1 for the 2025 No-Build and 2025 Build scenarios. As shown, the accident probability analysis found the study crossings to be well below 0.50 accidents per year with existing crossing safety protection, and the increased traffic in the 2025 Build scenario would not be expected to result in any material change to the frequency of accidents compared to the 2025 No-build scenario.

TABLE 1: AT-GRADE STUDY RAIL CROSSING SAFETY ASSESSMENT

STUDY RAIL CROSSING*	PREDICTED ACCIDENTS (ACCIDENTS/YEAR)		
	FUTURE NO BUILD 2025	FUTURE BUILD 2025	CHANGE (2025 BUILD-2025 NO BUILD)
SE STARK STREET (754542S)	0.006	0.007	0.001
SE YAMHILL STREET (754550J)	0.004	0.004	0.000
SE SALMON STREET (754552X)	0.207	0.208	0.001
SE MAIN ST (754553E)	0.003	0.004	0.001
SE CLAY STREET (754559V)	0.107	0.107	0.000

Source: U.S. Department of Transportation APS model; assessed using FRA GradeDec.Net.

Note * The current safety protection for each at-grade study crossing includes active devices with automatic gates.

[1] Highway-Rail Grade Crossing Accident Prediction and Severity, Federal Railroad Administration, 2020.

[2] Highway-Rail Crossing Handbook- Third Edition, Federal Highway Administration.

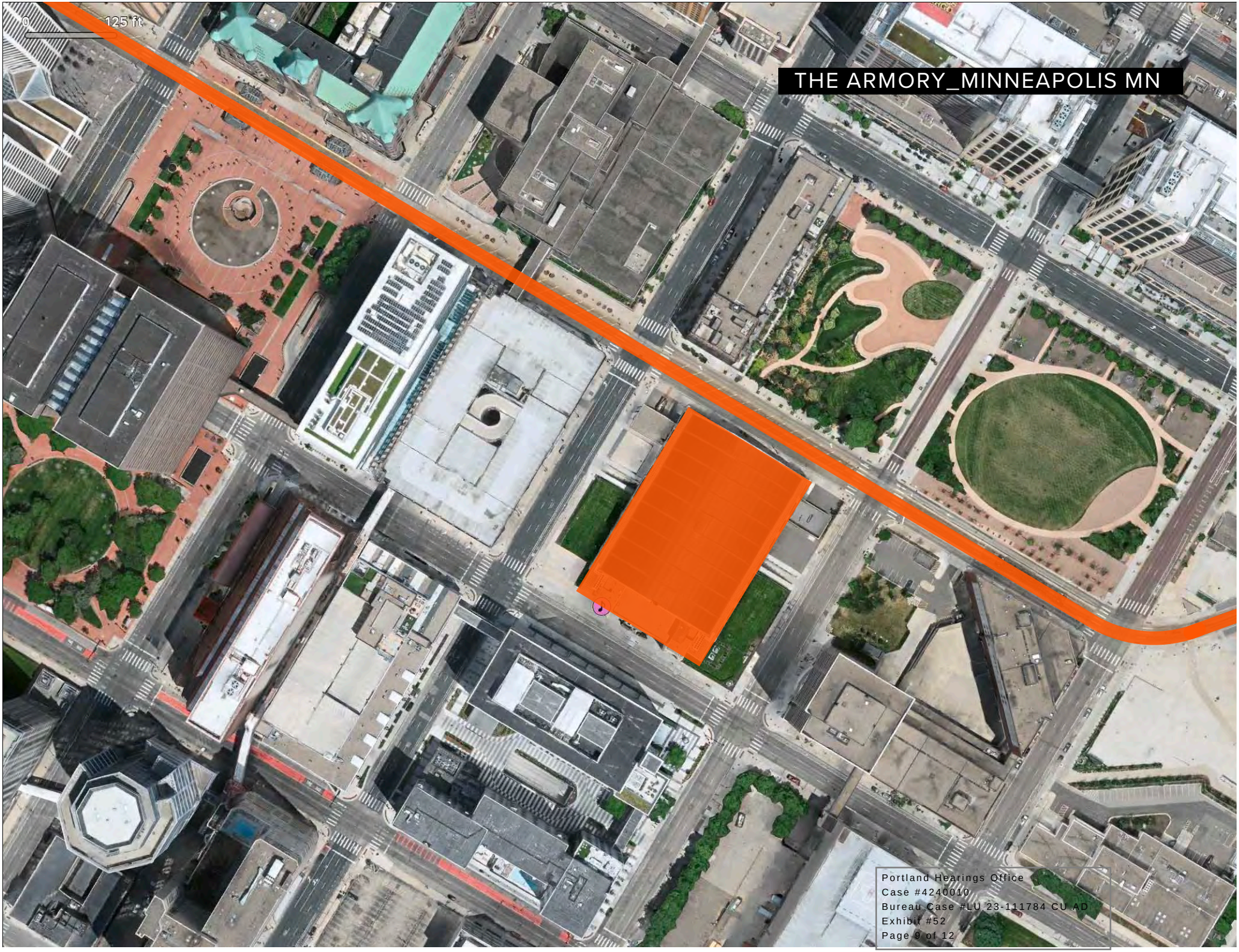
[3] Ibid.

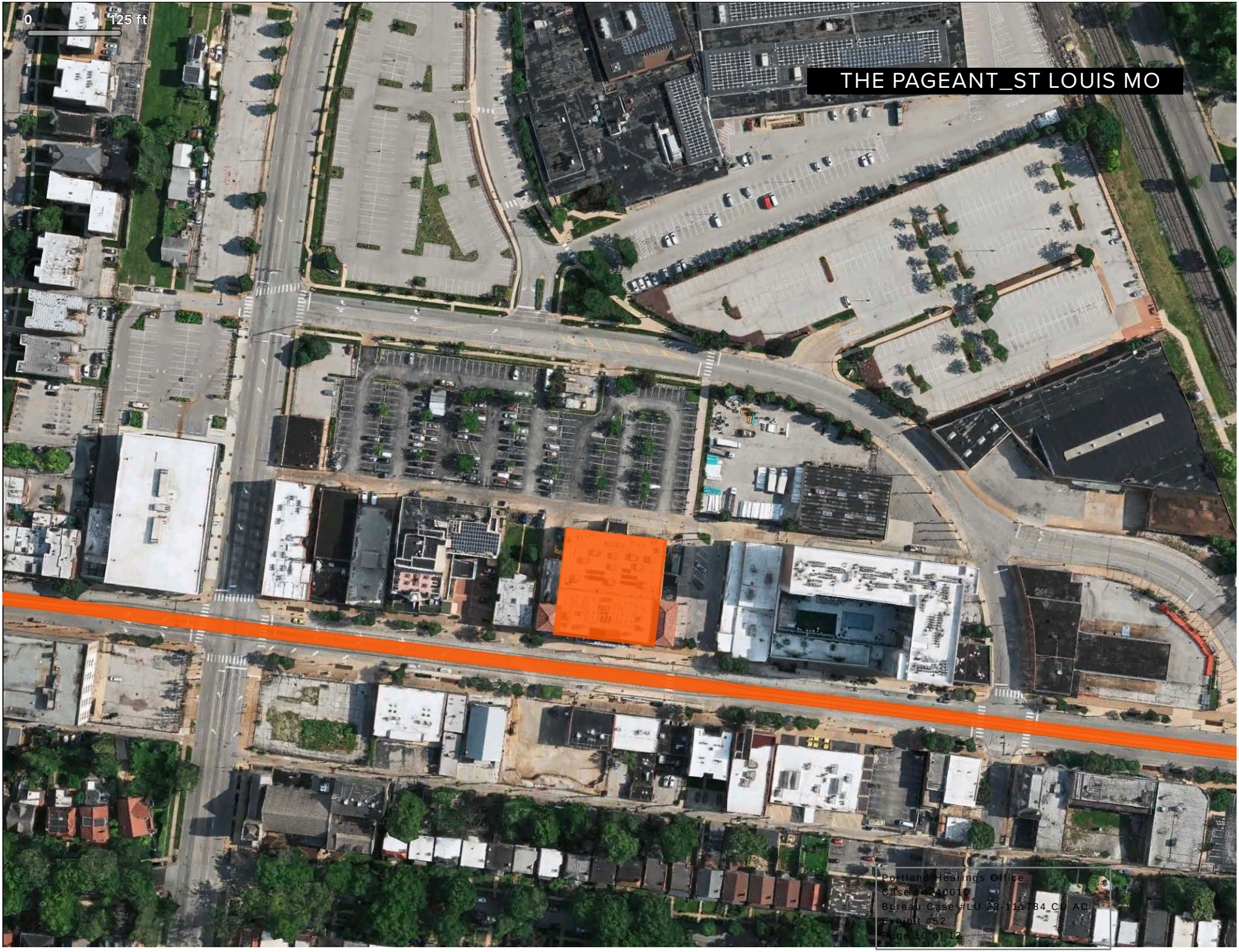
EMPLOYEE TRIP GENERATION

Employee trip generation information is summarized in the TIS on pages 21-24. Employee arrival and departure estimates were based on typical schedules, and the associated peak hour trips for these employees are included in Table 10 and 11 of the TIS (see page 22 and 24 of the TIS).


0
125
250 ft
ORACLE PARK_SAN FRANCISCO CA


0
50
100 ft
TERMINAL WEST_ATLANTA GA
Portland Hearings Office
Case #4240010
Bureau Case #LU 23-111784 CU AD
Exhibit #52
Page 8 of 12


0
125 ft
THE ARMORY_MINNEAPOLIS MN
Portland Hearings Office
Case #4240010
Bureau Case #LU 23-111784 CU AD
Exhibit #52
Page 9 of 12


0
125 ft
THE PAGEANT_ST LOUIS MO
Portland Hearings Office
Case # 240010
Bureau Case #LU 23-111784 CU AD
Exhibit #52
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0 125 250 375 ft
WRIGLEY FIELD_CHICAGO IL
WRIGLEY FIELD
Portland Zoning Office
Case #4200010
Bureau Case #LU 23-111784 CU AD
Exhibit #52
Page 11 of 12

Damien R. Hall

From: Christina Karas <ChristinaKaras@LiveNation.com>
Sent: Wednesday, July 24, 2024 3:52 PM
To: Damien R. Hall
Subject: Information from Live Nation

Live Nation is committed to responsible alcohol service. For nearly two decades, we have been a dues-paying member of the TEAM Coalition (Techniques for Effective Alcohol Management), which is a non-profit organization that trains and certifies concessions, operations, and security staff on safe and responsible alcohol service. Live Nation requires all alcohol servers to complete TEAM or other state-approved alcohol service courses, which train servers to recognize the signs of intoxication.

Moreover, the State of Oregon maintains its own robust alcohol regulations to protect the safety and welfare of its citizens (including a comprehensive set of requirements for alcohol management in public venues). Under Oregon law, alcohol servers and alcohol monitors must hold a valid, state-issued alcohol service permit, which requires the completion of a state-provided alcohol service education course. Live Nation will comply these local regulations

From: Marshall Runkel <marshallr@strategies360.com>
Sent: Wednesday, July 24, 2024 3:59 PM
To: Hearings Office Clerks <HearingsOfficeClerks@portlandoregon.gov>
Subject: Further Testimony Regarding LU 23-111784 CU AD

Hearings Office Clerks,

I'm attaching further evidence that the proposed project is being charged a below market rate for the benefits it claims in its Economic Impact Analysis.

Marshall Runkel

N&N
REAL ESTATE
SERVICES, LLC

July 24th, 2024

Marshall Runkel
Strategies 360
1001 SE Water Avenue #350
Portland, Oregon 97214

Via Email: marshallr@strategies360.com

Re: Block B – Workshop Blocks in Portland's Central Eastside

Dear Marshall:

Executive Summary: N&N Real Estate Services is providing an Opinion of Value of a 34,862 square foot property located at the northwest corner of SE Main Street and SE Water Avenue, in Portland, Oregon. The property is zoned IG1 (General Industrial 1) and is owned by Prosper Portland. The developer proposes entering into a ground lease of the subject property for development of a 59,000 square foot music venue with seating for 3,750 patrons.

Property in the vicinity of the subject property is valued at $20.57 per square foot to $367.21 per square foot across a wide range of sizes and zoning. The most applicable comparable is the land being purchased by The City of Portland under a portion of the Moda Arena in accordance with City of Portland Ordinance 37654, Authorized a Non-binding Term Sheet with Rip City Management LLC and Trail Blazers, Inc for Rose Quarter Operating and Lease Agreement. The Ordinance states that the market value of the 1.39-acre property being purchased by the City is between $99.09 and $132.12 per square foot.

Applied to the subject property, without adjusting for the impact of the project's economic development, community need, economic feasibility, parking availability or access for the intended use, equates to $3,454,475 to $4,605,967. Assuming the transaction is a long-term unsubordinated ground lease, an appropriate return on the value of the land is between 7.0% to 8.0%. This places the market value of the subject property, ground leased, at between $241,813 and $368,477 per year, net of property taxes, with appropriate increases over the term of the ground lease.

Company Background: Mark New started his career in the real estate business with Grubb & Ellis Commercial Real Estate in Portland Oregon. In 1991, New left Grubb & Ellis to co-found New & Neville Real Estate Services, which became one of the top retail real estate brokerage companies in Oregon with a significant market share representing property owners and national tenants in the Oregon market.

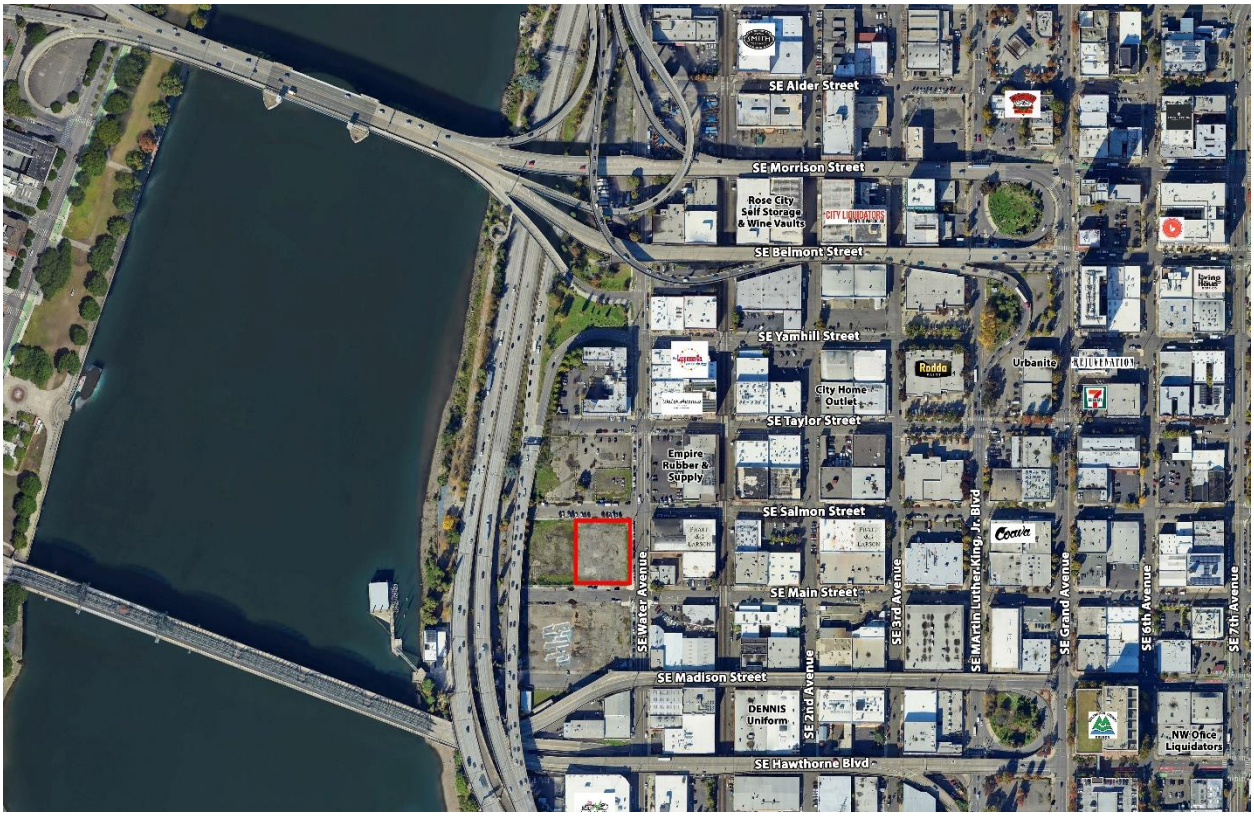
In 2019, New sold his interest in the company and along with his daughter, Rachel, started N&N

Real Estate Services as real estate brokerage company in conjunction its ownership and operation of Development Company of the West, LLC, a developer and property manager.
The company provides expertise in all aspects of retail real estate including property acquisition and disposition, pad, shop space, and anchor tenant leasing, in addition to project design and tenant mix consultation.

Assignments have ranged from determining the highest and best use for clients' surplus properties to designing and implementing statewide market penetration plans for national retailers. Mark's experiences enable him to advise clients on such diverse issues as land use regulations, financial structuring of leases, contract documentation, and construction coordination. Rachel has also become an expert in presenting property and board level real estate packages for the nation’s top retailers including Dick’s Sporting Goods, Ulta Beauty, Dollar Tree, Michaels Craft and Panera Bread.

Subject Property: The subject property is located in the Central East Side Industrial Area on SE Water Avenue and SE Main Street. The Zoning is IG1 (General Industrial 1), which allows for manufacturing, warehouse and freights movement, wholesale sales, industrial sales, railroad yards, and parks and open spaces, with an unlimited building height and FAR.

The property is owned by Prosper Portland. Beam Development has the exclusive rights for development, in addition to the two adjacent parcels to the North and South and proposes developing a 59,000-music venue that will be leased to Live Nation, for a 3,750-person venue.



Portland Hearings Office
Case #4240010
Bureau Case #LU 23-111784 CU AD
Exhibit #53
Page 3 of 6

Market Area Description: The subject property, at SE Main Street & SE Water Avenue, is located in the Central Eastside Industrial Area.

The Central Eastside Urban Renewal Area is a 708.5-acre subdistrict of Portland's Central City along the east bank of the Willamette River. The area is zoned primarily for industrial and employment land uses.

Historically businesses in the district consisted primarily of industrial services, warehousing and distribution, and manufacturing. Over the years and with increasing land values, some of these businesses have begun to migrate to other areas with larger development parcels and better access to the regional transportation network. At the same time, the nature of industry in the U.S. has expanded as new technologies helped grow knowledge- and industrial design-focused firms.

Today, the Central Eastside Industrial Area houses more than 1,100 businesses and 17,000 jobs. The district's industrial uses range from creative businesses to digital and creative services to food and craft makers.

In recent years, many of the warehouses have been converted to art studios and office spaces for small tech companies. Due to its proximity to the waterfront, it also has multiple events throughout the year, including the Winter Light Show, a skatepark, and multiple art galleries.

SE Main St & SE Water Ave	3-Mile	5-Mile
2024 Estimated Population	216,658	466,645
2029 Projected Population	226,609	478,739
Median Age	37.2	38.6
Est. Households	112,579	216,467
Average HH Income	$139,870	$140,777
Median HH Income	$91,926	$96,324
Number of Businesses	21,055	30,977
Daytime Population	385,183	603,699

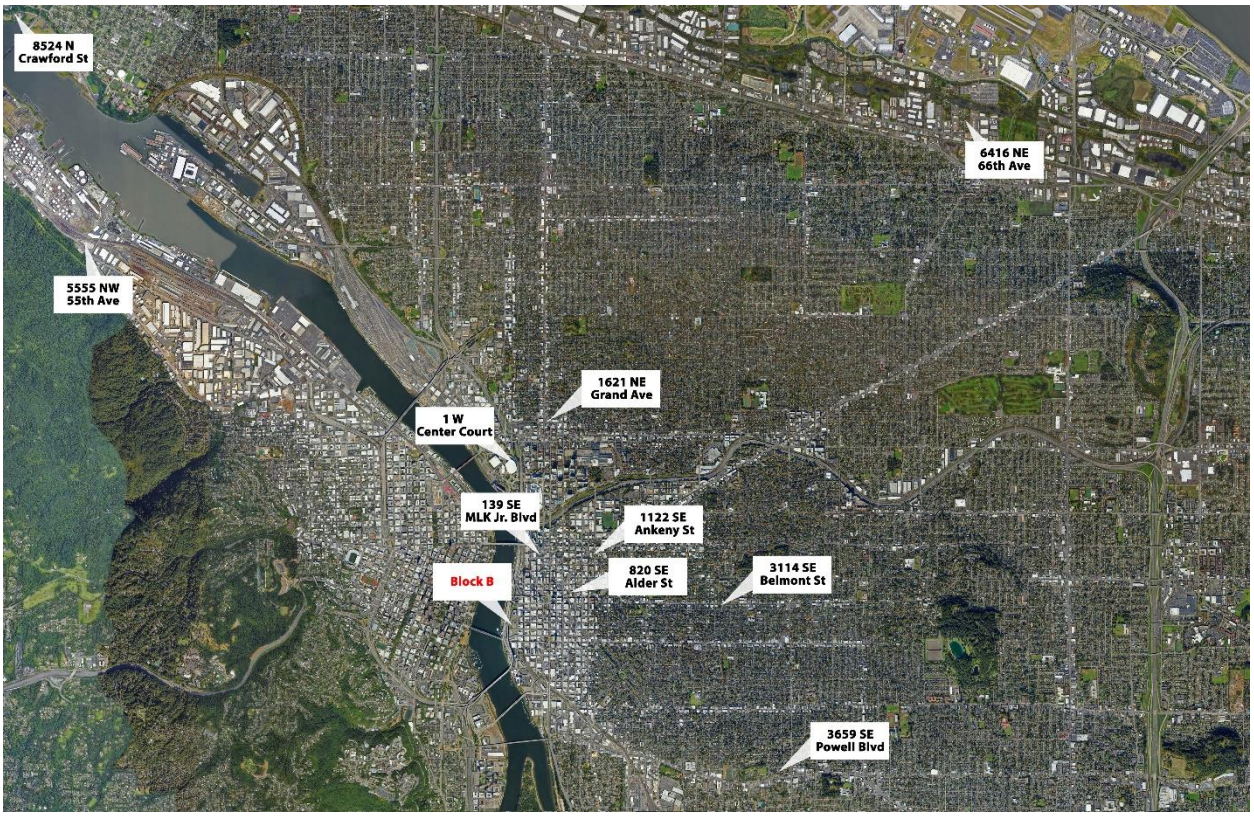
In addition, within three miles of the site are 21,055 businesses with total daytime employment of 385,183. The area retail market is anchored by City Liquidators, Pratt & Larson, Lippman, in addition to bar and restaurants including Olympic Provisions and Smith Tea, office and industrial buildings include Stumptown's Corporate Headquarters, Empire Rubber & Supply Co, and Independent Publishing and Resource Center (IRPC).

The residential population in the vicinity of the subject property includes 216,658 residents within a three-mile radius and 466,645 residents within the five-mile radius, with average household income of $139,870 within a three-mile radius and $140,777, within a five-mile radius.

Market Overview: The market value of the subject property is determined by valuing the land using the sales comparison approach which uses available market data to compare recent land sales and current listings to estimate the subject property's current market value.

Land in the vicinity of the subject building is being negotiated for a sale, has sold, or listed at values ranging from $25.40 to $344.35 per square foot as follows:

Year Sold	Address	Acre	Size (SF)	Zoning	Price Per Square Foot
Listing	3659 SE Powell Blvd Portland, Oregon	0.97	42,253	CM2	$100.00
Listing	8524 N Crawford Street Portland, Oregon	7.00	304,920	EG1	$20.57
Listing	5555 NW 55th Avenue Portland, Oregon	0.41	18,000	IH	$30.00
Listing	6416 NE 66th Avenue Portland, Oregon	0.63	27,650	IG2	$32.14
In Negotiation	1 W Center Court Portland, Oregon	1.39	60,548	CX	$99.09 to $132.12
1–2023	820 SE Alder Street Portland, Oregon	0.43	18,785	IG	$367.31
10– 2022	3114 SE Belmont Street Portland, Oregon	0.11	5,000	CM2	$170.00
6 – 2022	1621 NE Grand Avenue Portland, Oregon	0.44	19,166	CXd	$25.40
2 – 2022	139 SE Martin Luther King Jr. Blvd Portland, Oregon	0.15	6,534	EX	$344.35
9 – 2021	1122 SE Ankeny Street Portland, Oregon	0.12	5,301	EX	$188.64



Conclusion: Sales in the upper range per square foot are either significantly smaller or zoned to allow more dense development and are not comparable to the subject property. The 7.0 acres available for sale is also not applicable as its size is significantly larger than the subject property.

Eliminating these comparable narrows the range to between $25.40 to $132.12 per square foot. with the most direct comparable being the City of Portland's purchase of the land under the Moda Arena in the range of $99.09 to $132.12 per square foot (per the City of Portland Ordinance with negotiations yet to be finalized.

With the per square foot value ranging from $99.09 to $132.12, the value of the parcel is $3,454,475 to $4,605,967. As this is proposed as a ground lease (assumed to be unsubordinated), the return to the landowner is equally important and is determined through negotiations and is a function of the credit worthiness of the tenant and the reliability that the income stream will be maintained. While ground leases of this nature are limited in this market, an examination of ground leases indicates a market return to the landowner of between 7.0% and 8.0% which indicates annual ground lease payments of between $241,813 and $368,477, net of property taxes..

Please review the above and should you have any questions or comments, please do not hesitate to call.

Sincerely,

Mark New

DUNN CARNEY LLP

Memorandum

To: William Guzman, Chief Hearings Officer

From: Damien Hall

Date: July 31, 2024

Re: Applicant's Final Written Argument (Hearings Office Case No. 4240010)

I. Introduction

This memorandum is the final legal argument of Beam Development ("Applicant") in the above-referenced conditional use review for a new live music venue located in the Central Eastside ("Application").

As discussed in additional detail below, the Application proposes the exact kind of live events that are key to activation and revitalization of the Central City, and approval of the Application will bring a new first-class venue to what has been a vacant lot for over fifteen (15) years. The proposed venue is of a size that will bring additional acts to town, and represents an expansion of the City's cultural offerings that will provide unique concert experiences for patrons and economic benefit to Central City small business and the hospitality industry. In short, the proposed venue is the kind of revitalizing development that the Central Eastside and Central City need to help rebound from some tough years of reduced activity and disinvestment.

The Applicant agrees with the findings and recommendation of approval contained in the Staff Report and Recommendation to the Hearings Officer ("Staff Report") [Exhibit 5]. The Applicant also is amenable to imposition of the revised conditions of approval proposed by and City staff in the Staff Memo [Exhibit 6]. The discussion at the hearing and evidence in the record focus on the conditional use standards at 33.815.215.A-C and the adjustment standards at 33.805.040. The Application demonstrates compliance with all other standards of the IG1 zone and Central City Plan District and the record contains no evidence or argument to the contrary.

The balance of this memorandum demonstrates that the conditional use and adjustment standards are satisfied and addresses some of the arguments raised that do not relate to the approval criteria to maintain factual accuracy of the record.

II. Response to Conditional Use Standards - PCC 33.815.215.A-C

The purpose of the Major Event Entertainment conditional use approval criteria is to "ensure that the potentially large size and impact of these uses are not harmful to surrounding areas and that transportation services are or will be sufficient to serve the use." See PCC 33.815.215. There are three (3) applicable approval standards, relating to public services, appearance, and benefit.

The public services standards are the focus of the TIS and review by the bureaus charged with providing public services. As discussed further below, no bureaus have expressed concern about the provision of services. The Applicant has provided extensive expert evidence in the form of the TIS and supplemental analysis, which identifies significant improvements to the transportation systems and transportation demand management measures. The purpose of this expert analysis is not just to demonstrate that the system will have the technical capacity to functionally serve all modes of transportation, but to ensure that venue patrons are able to have a first class experience, not just at the event but on their way to and from the venue and surrounding area. As evidenced by the Staff Report, City staff has reviewed the TIS and supports its conclusions.

In contrast, project opponents have provided no evidence (expert or otherwise) of the inadequacy of public services to support the proposed venue.

Each of the conditional use approval standard is addressed below, with the language of the approval criteria in *italics*. For the following reasons, the Applicant respectfully requests that the Hearings Officer find that the standards of 33.815.215.A-C are satisfied.

PCC 33.815.215 - MAJOR EVENT ENTERTAINMENT

A. Public services.

1. *The proposed use is in conformance with the street designations shown in the Transportation Element of the Comprehensive Plan;*

Response: Compliance with this standard is demonstrated by substantial expert evidence in the record. PBOT provides a detailed written response to this criterion [Staff Report Exhibit E-2; see also, Exhibit 16, at 2]. As expressly determined by PBOT and as adopted by the Staff Report, PBOT found that the proposed conditional use project is consistent with the surrounding street designations of the Transportation Element of the Comprehensive Plan and TSP classifications" [*Id*.; see also, Exhibit 5, at 4].

Further, the Applicant's Traffic Impact Study ("TIS") [Staff Report Exhibit A-10], contains a detailed discussion of how the proposed use is appropriate for the site's traffic street designations identified in Table 1 of the TIS [Staff Report Exhibit A-10, at 57]. The design classifications (SE Salmon Street and SE Main Street are Local Streets, and SE Water Avenue is a Neighborhood Main Street) are also suited for the proposed land use [*Id*.; see also, Staff Report Exhibit A-12, at 5]. The intended land use of these designations is:

- SE Salmon Street and SE Main Street (Local Streets): Local Streets are multimodal and important for local circulation of trucks in commercial and industrial areas.

- SE Water Avenue (Neighborhood Main Street): These are segments of Neighborhood Corridors located within the Central City and areas of intensive commercial activity. They are intended to serve a mix of uses which are oriented toward the street.

In furtherance of these design classifications, Applicant will improve the street frontages of the proposed venue to feature wider sidewalks corridors on SE Main Street and SE Salmon Street, consistent with their local street designations in a Pedestrian District and along SE Water Avenue, consistent with its Major City Walkway and Neighborhood Main Street designations. Such improvements will be reviewed through a Public Works Permit [Exhibit

5, at 8]. Currently, the street improvements do not meet City standards [Exhibits 49 and 50].

2. *If the proposed use will be located in an industrial zone, it will not have a significant adverse effect on truck and freight movement;*

Response: Compliance with this standard is demonstrated by substantial expert evidence in the record. As addressed in detail in the TIS, the project will not have a significant adverse effect on truck and freight movement and will protect the important freight connection between the Central Eastside and nearby regional truck routes along Interstate 5 and OR 99E [Staff Report Exhibit A-10, at 57]. Adjacent and nearby streets will continue to fully accommodate truck movements (and all modes of transportation). The loading dock and staging area for the proposed venue will be located away from the SE Water Avenue Priority Truck Street to allow efficient passage for large vehicles along SE Water Avenue [Staff Report Exhibit A-10, at 57; Staff Report Exhibit A-10, Section 17 – Traffic Control Plan]. Loading-related truck movements will ultimately be addressed pursuant to an angle loading permit or other permit approved by PBOT, and the TIS contains a traffic control plan for ensuring that movements using Water Avenue are performed efficiently and safely. SE Main Street and SE Salmon Street are not used for truck and freight movement due to vehicular traffic terminating to the west of the site, and the lots along these street sections remaining vacant.

Further, PBOT reviewed and concurs with the TIS, stating as follows:

> "The proposed use is located within the Central Eastside Industrial Sanctuary. The applicant's TIS [Staff Report Exhibit A-10] provided an analysis of existing, projected no-build, and post-development multi-modal transportation patterns. Conclusions indicate that since all of the development is located west of SE Water Ave, with the abutting east-west streets of SE Salmon and SE Main terminate into the Eastbank Esplanade, the proposed development will not conflict with existing truck and freight movement throughout the district. This criterion is met."

[Staff Report Exhibit E-2; Exhibit 5, at 5; Exhibit 16, at 2].

3. *Transportation system:*

    a. *The transportation system is capable of supporting the proposed use in addition to the existing uses in the area. Evaluation factors include safety, street capacity, level of service, connectivity, transit availability, availability of pedestrian and bicycle networks, access restrictions, neighborhood impacts, impacts on pedestrian, bicycle, and transit circulation. Evaluation factors may be balanced; a finding of failure in one or more factors may be acceptable if the failure is not a result of the proposed development, and any additional impacts on the system from the proposed development are mitigated;*

Response: The Applicant's traffic engineer has evaluated each of the evaluation factors to determine that that "with the recommended improvements, the transportation system will be capable of safely supporting the proposed venue, in addition to accommodating existing uses" [Staff Report Exhibit A-10, at 58-59]. PBOT staff have also specifically reviewed the TIS (Staff Report Exhibit A-10) and approved the methodologies, analyses, assumptions, findings, and conclusions therein, and confirmed that the evaluation factors under this standard have been addressed and satisfied. The Applicant agrees with the robust findings in the Staff Report

[Exhibit 5, at 5-8] and PBOT's memorandum [Exhibit 16, at 2-5], which determined that the transportation system is capable of supporting the proposed use in addition to existing uses.

The Hearings Officer should find that the Application satisfies this criterion based on extensive evidence in the record. The Applicant further addresses each evaluation factor and responds to oppositional testimony raised during the course of the proceedings, as follows:

- Safety: For vehicle safety, the Applicant's traffic engineer utilized Oregon Department of Transportation's (ODOT) Crash Data System over a five-year period from January 2016 to December 2020. See Staff Report Exhibit A-10. There were 66 crashes recorded at the study intersections over the five-year period (see Table 4), with the most crashes occurring at the SE Stark St/SE Grand Ave and SE Stark St/SE MLK Jr Blvd intersections. *Id*. at 19-20. Seven involved people walking or biking, including one at the SE Water Ave/SE Salmon St intersection. *Id*. at 8. The most common collision types at the study intersections were angle, turning and rear-end crashes, many of which show "no yield" or "disregarded traffic signal" as the cited cause. *Id*. In addition, the Union Pacific study rail crossings along the segment between SE Stark Street and SE Clay Street also had three reported incidents in the past five years, two in 2020 and one in 2022, two at the SE Salmon Street and one at the SE Clay Street crossings (see Table 5). *Id*. at 9-10. Each of these incidents included a train striking a pedestrian, with two resulting in a fatality and one resulting in an injury.

  When an intersection's crash rate (crashes per million entering vehicles) is greater than the critical crash rate (an intersection's crash history compared to similar intersections, adjusting for volume), it's an indication that a design deficiency may exist and further study is warranted. As shown in Table 6, one of the identified intersections is located at the intersection of SE Water Ave/SE Salmon St – where the proposed use is located. Staff Report Exhibit A-10, at 11. This is a 4-leg intersection with stop control located on the SE Salmon St approaches. Of the 6 recorded crashes over the 5-year period, four involved people running the stop sign (one being a bike running the stop sign), and two involved drivers running into a stopped vehicle (one being a parked car). *Id*., at 10-11. Of the four collisions where a driver or bike ran the stop sign, the direction of travel was split between the east and west approaches of SE Salmon Street and included either an inattentive driver "failing to yield" or "passing the stop sign" as the cause, rather than an intersection design flaw. *Id*. As further addressed in DKS's Technical Memorandum, the proposed venue will provide frontage improvements adjacent to these intersections which can improve driver awareness when approaching the SE Water Avenue intersection along SE Salmon Street; but overall these collisions were caused by inattentive drivers and the proposed venue is not anticipated to exacerbate it. See Exhibit 15.

  Moreover, the predicted accident probability based on current safety protection for each at-grade study crossing is summarized in the table below for the 2025 No-Build and 2025 Build scenarios. As shown in the table, the accident probability analysis found the study crossings to be well below 0.50 accidents per year with existing crossing safety protection, and the increased traffic in the 2025 Build scenario would not be expected to result in any material change to the frequency of accidents compared to the 2025 No-build scenario. See Exhibit 52, at 4-6.

Table 1: At-Grade Study Rail Crossing Safety Assessment

STUDY RAIL CROSSING*	PREDICTED ACCIDENTS (ACCIDENTS/YEAR)		
	FUTURE NO BUILD 2025	FUTURE BUILD 2025	CHANGE (2025 BUILD- 2025 NO BUILD)
SE STARK STREET (754542S)	0.006	0.007	0.001
SE YAMHILL STREET (754550J)	0.004	0.004	0.000
SE SALMON STREET (754552X)	0.207	0.208	0.001
SE MAIN ST (754553E)	0.003	0.004	0.001
SE CLAY STREET (754559V)	0.107	0.107	0.000

Furthermore, the proposal is designed to ensure safe conditions for all modes and PBOT standards are designed to provide safe conditions for all modes, especially pedestrian and cyclists. The Applicant will be required to dedicate property along all three frontages and reconstruct the abutting pedestrian corridor to City standards. Exhibit 16, at 3. The TIS also recommended curb extensions at both the SE Salmon and SE Main Street intersections. The curb extension into SE Main Street (see Figure 10 of Staff Report Exhibit A-10) would shift the travelway slightly south for drivers heading westbound away from SE Water Avenue and would provide space for a tour bus to be staged on-street during events to the east of the loading dock for the proposed venue. Staff Report Exhibit A-10, at 36-37. The curb extension into SE Salmon is adjacent to the proposed bike parking on SE Salmon Street and is recommended to support the proposed bike parking. *Id*., at 37 and 39. As noted by PBOT, there is also a planned two-way cycle track along the site's SE Water frontage in the future. Exhibit 16, at 3. Additional safety improvements such as crosswalk stripping, signage, lighting, etc. will be determined during the review of the Public Works permitting process. *Id*.

Project opponents assert that the site may not be adequately lit and that should be accounted under the "safety" factor. Simply put, there is sufficient street lighting in the area surrounding the site and along the streets which provide pedestrian access to the site, as demonstrated by the photographs of the area taken on 7/23/24 at approximately 10pm [Exhibits 49, 50, 51]. Further, development of the proposed venue will result in new street lighting improvements to city standards immediately adjacent to the site, further ensuring an adequately lit and safe experience for venue patrons.

On the issue of traffic safety, a project opponent also submitted testimony alleging various traffic impact-related arguments that the proposed use would generate: conflicts with trains as it relates to pedestrian access and rail crossings; increased darkness and poor visibility for pedestrians at late hours; increased alcohol use; and increased accidents. See Exhibit 35. These contentions should all be denied for the three reasons below.

First, as explained in Applicant's Exhibit 52, the standard protective devices at rail crossings in Oregon are installed and maintained by the railroad (not the Applicant) per OAR 741-110-0020 to 0090 and 741-115-0010 to 0080. See Exhibit 52, at 4. The

crossing characteristics near the proposed venue are documented in the TIS at SE Stark Street, SE Yamhill Street, SE Salmon Street, SE Main Street and SE Clay Street (see page 6 of the TIS), and include advance warning pavement markings and signage, and post mounted flashing light signals, automatic gates and supplemental signage indicating the number of tracks at the crossing, with the crossing at SE Clay Street also including flashing-light signals on cantilevered supports. *Id*. These grade crossings also include nearby illumination to provide light during hours of darkness. *Id*. In fact, Exhibits 49, 50, 51 show that visibility at night in the surrounding area and at the site are not impaired and include nearby illumination. Exhibit 52 (at. p. 2) further demonstrates that rail crossings do not pose operational safety concerns.

Second, regarding alcohol consumption, the approval standards do not require projecting and accounting for impairment of individual users of the transportation system. That being said, our proposed venue operator is committed to responsible alcohol service as evident in the record, and it has been a member of the TEAM Coalition (Techniques for Effective Alcohol Management), which is a non-profit organization that trains and certifies concessions, operations, and security staff on safe and responsible alcohol service. See Exhibit 52, at 12. The proposed venue will also comply with State law, which maintains its own robust alcohol regulations. *Id*.

Third, regarding alleged traffic safety concerns and increased accidents, such contentions are unfounded for the reasons already addressed above. Specifically, as noted in Table 1 above, the proposed use is not expected to result in any material change to the frequency of accidents. To the extent that the project opponent alleges that the TIS failed to consider employee trip generation, that contention is simply untrue. As expressly noted in Applicant's Exhibit 52 (at p. 6), employee trip generation information was considered in the analyses and summarized in the TIS (Staff Report Exhibit A-10, at 21-24)

Further, during the second open record period, traffic expert evidence (Exhibit 41) was submitted on behalf of Bateman Seidel in response to the Applicant's TIS (Staff Report Exhibit A-10). The second open record period was however limited to responses to new evidence submitted during the first open record period. The TIS was not submitted during the first open record period and Exhibit 41 was not in response to any new evidence submitted during the first open record period. Therefore, Exhibit 41 should be excluded from the record in its entirety.

Even if Exhibit 41 is reviewed on the merits, the traffic comments are unsound and inconsistent with the extensive analysis provided in the TIS and additional evidence in the record. The traffic comments simply agree with Bateman Seidel (Exhibit 35) without providing any empirical traffic data and analysis and further argues that the Applicant has not provided adequate traffic analysis to fully determine impacts and mitigation. To the contrary, as noted above, there is extensive evidence in the record demonstrating the methodologies, analyses, assumptions, findings, and conclusions with regard to traffic safety, intersection capacity, Level of Service (LOS), connectivity between travel modes, trip generation including employee trip generation, multi-modal safety, potential impacts, mitigation measures, and proposed public improvements. See Staff Report Exhibit A-10; Exhibit 15; Exhibit 16; see also, Exhibit 52, at 4-6. Thus, any allegations including safety-related contentions raised in Exhibit 41 should be denied.

Finally, a project opponent also contends that no venue can be safely located in proximity to a rail line. Exhibit 35. This is simply incorrect as demonstrated by many venues across the county being located in proximity to a rail line. See Exhibit 52, at 7-11. Specific to the subject site, the traffic engineer analyzed the increase in pedestrian crossings for safety impacts and found that the proposed use would not result in any material change, as discussed above. See Exhibit 52, at 4-6. Even if the Hearings Officer finds that safety remains in question, the Applicant has demonstrated compliance with all of the identified evaluation factors under this standard on balance including safety considerations. Any contentions to the contrary should therefore be denied.

- Street Capacity/Level of Service (LOS)*:* To determine the pre-build and post-build intersection capacity and LOS, turning movement data was obtained for the study intersections during the weekday and weekend pre-event period (6 p.m. to 8 p.m.) and post-event period (10:00 p.m. to 12:00 a.m.). See Staff Report Exhibit A-10, 12. Daily motor vehicle count data was also collected adjacent to the proposed venue along SE Water Avenue, south of SE Salmon Street and north of SE Main Street. *Id*. The count data indicates that approximately 4,900 vehicles pass the proposed venue along SE Water Avenue during an average weekday. *Id*. Of these vehicles, 1,300 travel northbound and 3,600 travel southbound. The highest number of trips along SE Water Avenue occurs from 5:00 – 6:00 p.m., with 488 vehicles passing the proposed venue (157 northbound and 331 southbound). *Id*. During the pre-event and post-event peak hours, 165 and 35 vehicles pass the proposed venue along SE Water Avenue, respectively. *Id*. For City study intersections along SE Water Avenue not designated on the Metro Regional Transportation Plan Arterial and Throughway Network, the City of Portland standards require a LOS "D" or better to be maintained for signalized intersections and a LOS "E" or better for intersections with stop control. *Id*., at 12-13. As shown in Table 7 of the TIS, all study intersections meet the current mobility targets during the weekday and weekend pre-event and post event peak hours. *Id*., at 14-15. All intersections along SE Water Avenue operate with a LOS B or better, while the signalized intersections at SE Stark Street/SE Grand Avenue and SE Stark Street/SE Martin Luther King Jr Boulevard operate with a LOS C or better, well below the current mobility targets. *Id*., at 14.

  For Post-build expectations, Table 17 of the TIS shows the future 2025 intersection operations at study intersections, with the proposed venue. *Id*., at 47-48. As shown, all study intersections are expected to continue to meet mobility targets despite the added traffic growth from the proposed venue through 2025, despite an expected increase up to 14 percent during the pre-event peak hour and up to 41 percent during the post-event peak hour. *Id*., at 47. All intersections along SE Water Avenue are expected operate with a LOS C or better, while the signalized intersections at SE Stark Street/SE Grand Avenue and SE Stark Street/SE Martin Luther King Jr Boulevard also operate with a LOS C or better. *Id*. Therefore, the system evaluation found no street capacity or level of service impacts with the proposed venue, as shown in Table 17, 18 and 19. *Id*. at 58.

- Pedestrian, Cycling, and Transit Availability: The proposed venue is very accessible to pedestrians and bicyclists and is well-served by a network of continuous sidewalks and bike facilities on the surrounding streets between nearby existing private vehicle parking, bike parking, ride hailing or transit stops. Staff Report Exhibit A-10, at 11. The proposed venue is also adjacent to existing bikeways along the Eastbank

Esplanade, SE Water Avenue and SE Salmon Street. *Id*. at 7. Current transit service near the proposed venue is primarily accessed via stops located on SE Grand Avenue and SE Martin Luther King Jr Boulevard between SE Salmon Street and SE Taylor Street, on the SE Madison Street and SE Hawthorne Boulevard viaducts (accessed via stairs from SE Water Avenue), on the SE Morrison Street and SE Belmont Street viaducts (accessed via stairs from SE Water Avenue), along SW 1st Avenue in downtown Portland across the Morrison Bridge, and near SE Tilikum Way. *Id*. at 7-8, 58. Event attendees and employees who utilize transit for travel to and from the venue would primarily utilize SE Water Avenue, SE Salmon Street and the Eastbank Esplanade to access transit services before and after events. *Id*. at 58. Current schedules indicate that the TriMet Routes 6, 14 and 15 and MAX light-rail service near the proposed venue extends beyond the conclusion of a typical event (i.e., expected to be 11:00 p.m. or later for most events). *Id*.

- Connectivity*:* The subject site located at the intersection of three ROWs meeting the City's Street spacing standards noted in 17.88.040. Therefore, additional connections are not required.

- Access Restrictions: Access is not allowed on the SE Water Avenue and SE Salmon Street frontages given the Major City Bikeway designation that prohibits it. Of the three frontages, SE Main Street is the only frontage that allows for vehicular access. As discussed further below, the Applicant proposes to provide loading from SE Main Street, reviewed through a loading permit as determined by PBOT.

- On-Street Parking Impacts*:* Parking surveys were conducted between 6:00 p.m. and 11:00 p.m. on a weekday (Thursday, July 27, 2023) and a weekend (Saturday, August 5, 2023) within a 0.25 mile or about a 10-minute walk of the proposed venue, which is generally considered a comfortable walking distance. Staff Report Exhibit A-10, at 15. This roughly includes the blocks bounded by the Willamette River to the west, SE Morrison Street to the north, SE Grand Avenue to the east and SE Clay Street to the south. *Id*. On-street parking in the surveyed area is either permit parking (i.e., Zone G or Zone N permit) or available via a 2-hour time limit for non-permit holders and enforced on weekdays only from 7 a.m. to 6 p.m. in non-metered spots and 8 a.m. to 6 p.m. in metered spots. *Id*. As shown in Table 14, about 1,318 parking spots were identified within the surveyed area, including 1,084 on-street parking stalls and 234 parking spots in public off-street lots (see Figure 16 and Figure 17). *Id*. at 40-41. A maximum estimated parking occupancy for the entire surveyed area of 32 percent was observed during the weekday and 17 percent was observed during the weekend, both occurring in the 5:00 p.m. and 7:00 p.m. survey period. *Id*.

  Table 15 of the TIS shows that a sold-out concert is estimated to generate demand for 915 parking spaces during both a weekday and weekend event, with attendee and employee arrivals occurring between 6:00 p.m. and 9:00 p.m. and most assumed to use parking locations within 0.25 miles of the proposed venue (i.e., 763 of the 915 parking spaces). *Id*. at 42-43. The total occupied parking spaces with the proposed venue is estimated to be highest between 8:00 p.m. and 9:00 p.m. during both a weekday and weekend event when the attendee and employee parking demand is at its highest (i.e., demand for 763 spaces within 0.25 miles of the proposed venue). *Id*. The parking occupancy rate during this period is estimated to reach 82 percent during a weekday event (i.e., 1,074 parking spaces) and 71 percent during a weekend event (i.e., 930 parking spaces) for the 1,318 parking spaces within 0.25 miles of the

proposed venue. The estimated parking occupancy rates between 6:00 and 8:00 p.m. are under 80 percent for a weekday event and under 70 percent for a weekend event. *Id*.

Table 16 of the TIS shows that a weekday special event is estimated to generate demand for 131 parking spaces, with attendee and employee arrivals occurring between 12:00 p.m. and 3:00 p.m. and all are assumed to use parking locations within 0.25 miles of the proposed venue. *Id*., at 44. The total occupied parking spaces with the proposed venue is estimated to be highest between 1:00 p.m. and 2:00 p.m., when 1,135 parking spaces are utilized. *Id*. This represents an 86 percent occupancy rate for the 1,318 parking spaces within 0.25 miles of the proposed venue. The estimated parking occupancy rates between 12:00 and 1:00 p.m. and are 2:00 and 3:00 p.m. are at or below 84 percent. *Id*. PBOT regularly evaluates the on-street parking demand and has the ability to adjust controlling factors in accordance with existing practices and policies. See Exhibit 16, at 4.

- Neighborhood Impacts*:* The purpose of the IG zone is to protect the Industrial Sanctuary area designated by the Comprehensive Plan. The Industrial Sanctuary zones identify areas where industrial uses may locate, while other uses – such as the current proposal – are restricted to prevent potential conflicts and to preserve land for industry. Here, the proposed venue is located on the edge of the Central Eastside subdistrict, and the majority of proposed operations would occur when many industrial and allowed uses are closed, offsetting the impact to the district.

Accordingly, for the reasons above, the Hearings Officer should find that this criterion is met.

b. Measures proportional to the impacts of the proposed use are proposed to mitigate on- and off-site transportation impacts. Measures may include transportation improvements to on-site circulation, public street dedication and improvement, private street improvements, intersection improvements, signal or other traffic management improvements, additional transportation and parking demand management actions, street crossing improvements, improvements to the local pedestrian and bicycle networks, and transit improvements.

The TIS found no off-site transportation impacts that result from the proposed venue based on the analysis comparison of no-build versus build. See Staff Report Exhibit A-10, at 59. As found in the TIS, the only impacts of the proposed use are on-site transportation impacts resulting from new site generated trips, which will be mitigated with proposed improvements. See Staff Report Exhibit A-10, at 59. Transportation impacts resulting from new site generated trips will be mitigated with improved street frontages to feature wider sidewalks, to include 12-foot sidewalk corridors on SE Main Street and SE Salmon Street, consistent with their local street designations in a Pedestrian District and a 15-foot sidewalk corridor along SE Water Avenue, consistent with its Major City Walkway and Neighborhood Main Street designations. *Id*., at 58.

In addition, a transportation and parking demand management plan (TDM) (Staff Report Exhibit A-10, Section 1) was also prepared for the proposed venue to reduce the impact of events on the transportation system and provide employees and attendees with information and incentives to use transportation methods other than single occupancy vehicles. The plan provides strategies to increase the transit, walking, and biking travel options, along

with traffic management techniques to ensure that people who travel via motor vehicle effectively navigate to their parking, drop-off, or pick-up location with fewer delays than what would occur under an unmanaged setting. *Id*. PBOT Parking Control and Traffic Engineering will also evaluate ride hailing locations as deemed appropriate to serve the use and reserve the right to modify and relocate such service locations as the project comes online. Staff Report Exhibit E-2.

Further, as described in further detail in Applicant's Technical Memorandum, given the planned future two-way cycle track on the west side of SE Water Avenue adjacent to the proposed venue, no curb extensions are required into SE Water Avenue. Exhibit 15, at 2. To support this future two-way cycle track improvement, the existing curb extension into SE Water Avenue at the northwest corner of the SE Main Street intersection is proposed to be removed as part of the recommended curb extension improvement noted above into SE Main Street at the same corner. *Id*. These proposed improvements are also recommended to include the associated crosswalk striping and signage as required. The final design of the curb extension and overall crossing/street layout will be determined during the public works permitting process. *Id*.

The Applicant also identified several Capital Improvement Projects (CIP) in and around the area that will also help mitigate anticipated impacts and strengthen the City's mode-split goals. See Staff Exhibit A-10, at 55-56 and 59. To the extent that project opponents argue the insufficiency of such CIP or the resulting transportation system, it is worth noting that substantially more trips to the Oregon Museum of Science and Industry (OMSI) are adequately accommodated on a daily basis that would be created by the venue [Exhibit 52, at 2]. OMSI is similarly located west of the rail line in the Central Eastside. As reflected in Exhibit 52, throughout OMSI's history at 1945 SE Water Avenue, it has not had an accident with a visitor and the train, and OMSI does not anticipate operational impacts from any rail operations. Exhibit 52, at 2.

In conclusion, the Staff Report and PBOT evaluated and analyzed the above measures in detail to find that the project will be able to sufficiently mitigate transportation-related impacts immediately surrounding the site and within the district. Exhibit 5, 8-9; Staff Report Exhibit E-2; Exhibit 16, at 2. Thus, with the proposed measures, the Hearings Officer should find that this criterion is met.

> *c. Transportation improvements adjacent to the development and in the vicinity needed to support the development are available or will be made available when the development is complete or, if the development is phased, will be available as each phase of the development is completed.*

Response: As noted above, all required frontage improvements, payment into the bike fund, and implementation of TDM strategies will be in place by the time the development is complete. Thus, this criterion is met.

In sum, as expressly found by PBOT and based on the evidence included in the record, the Applicant has demonstrated with required frontage improvements, implementation of proposed TDM measures, and adhering to conditions set forth in the appropriate angle loading permit as determined by PBOT, the proposed project will support access, safety, and function for users of all modes; and that the transportation system will be capable of supporting the proposed venue, in addition to accommodating the existing uses in the area.

See Exhibit 16, at 5. The Hearings Officer should therefore find that PCC 33.815.215.A.3.a-c is met.

4. *Public services for water supply, police and fire protection are capable of serving the proposed use, and proposed sanitary waste disposal and stormwater disposal systems are acceptable to the Bureau of Environmental Services.*

Response: The record contains substantial expert evidence demonstrating compliance with this standard. Specifically, each pertinent City bureau has been actively involved in the review of this Application and have confirmed there are no public service inadequacies.

- The Water Bureau and the Fire Bureau reviewed the proposal and responded with no objections, indicating that adequate water supply and fire protection would be available. [Staff Report Exhibits E-3 and E-4; Exhibit 5, at 10].

- The Police Bureau reviewed the proposal and responded that police would be able to adequately serve the proposed use [Staff Report Exhibit E-5; Exhibit 5, at 10].

- The Bureau of Environmental Services also reviewed the application and found the proposed sanitary sewer connection and stormwater management plan are acceptable [Exhibit E-1; Exhibit 5, at 10].

- A project opponent contends that there is nothing in the record indicating that the proposed venue had been reviewed by the City's Fire Bureau. Exhibit 35. To the contrary and as noted above in Staff Report Exhibit E-4, the Portland Fire & Rescue ("PF&R") reviewed the proposal and responded with no objections to the Application. Further PF&R analysis will occur during the building permit process.

B. *Appearance. The appearance of the facility is consistent with the intent of the zone in which it is to be located and with the character of the surrounding uses and development;*

Response: PCC 33.140.030.C states the intent of the General Industrial zones, including the IG1 zone that applies to the subject site:

> "The General Industrial zones are two of the three zones that implement the Industrial Sanctuary map designation of the Comprehensive Plan. The zones provide areas where most industrial uses may locate, while other uses are restricted to prevent potential conflicts and to preserve land for industry. The development standards for each zone are intended to allow new development which is similar in character to existing development. The intent is to promote viable and attractive industrial areas.
>
> 1. General Industrial 1. IG1 areas generally have smaller lots and a grid block pattern. The area is mostly developed, with sites having high building coverages and buildings which are usually close to the street. IG1 areas tend to be the City's older industrial areas.
>
> 2. General Industrial 2. IG2 areas generally have larger lots and an irregular or large block pattern. The area is less developed, with sites having medium and low building coverages and buildings which are usually set back from the street."

The site is at the western edge of an older industrial area, and the I-5 freeway and the Willamette River are just west of the site. See Exhibit 37, at 11. The lots to the north and south of the proposed building are undeveloped, and no development is currently proposed for these lots. See Staff Report Exhibit A-7, at 2; see also, Exhibit 45, at 1-2. Properties east of the site, on the opposite side of SE Water Street, are developed with one- and two-story industrial and commercial buildings. Exhibit 45, at 1-2. A larger, four-story building (the Eastbank Commerce Center) is one block north of the proposed concert venue.

As intended for the IG1 zone, this area has a grid block pattern and relatively small lots for an industrial area. (The concert venue lot would be about 32,000 square feet after required street dedications.) Since this proposal is to construct a new building on a currently vacant lot, and since that building would be close to all three abutting streets, covering most of the lot area, the proposal is consistent with the intent of the IG1 zone to have "high building coverages and buildings which are usually close to the street." See Staff Report, at 10.

More specifically, the new building would have a four-story scale and a modern design with angled roof lines and minimal ornamentation other than rooftop plantings. See Staff Report Exhibit C-4; see also, Exhibit 36 – Planting Plan, at 38; see also, Exhibit 36 - Roofing Plan, at 39. The design is akin to an "upscale warehouse" (Staff Report Exhibit A-12, at 9), and Staff Report Exhibit A-3 and Exhibit 45 - Neighborhood Building (at p. 4) show how the exterior design, though modern, reflects existing buildings in the area. In effect, contrary to allegations asserted by various project opponents, the appearance of the proposed building would be both attractive and compatible with the industrial character of the area, consistent with the intent of the General Industrial zones to "promote viable and attractive industrial areas."

Finally, to the extent that a project opponent [Exhibit 35] argues that the proposed use is a "wrong use in the wrong place" or questions the appearance of the proposed venue such that it is inconsistent with the zone and surrounding area, that argument is unsound. As noted above, the proposed use is consistent with the intent of the IG1 zone and surrounding area. In fact, neighborhood industrial buildings are similar to the proposed venue as depicted in [Exhibit 45, at p. 4]. Further, there is extensive evidence in the record demonstrating neighborhood support for the proposed use on the site [Exhibits 12, 27]. There is also extensive evidence in the record demonstrating local industry support for the proposed use on the site [Exhibits 10, 11, 27]. Additionally, the approval criteria in 33.815.215 are specifically for Major Event Entertainment Uses, and PCC Chapter 33.140 Table 140-1 explicitly recognizes that these uses may be proposed as conditional uses in industrial zones which includes the IG1 zone. See PCC Chapter 33.140 (Employment and Industrial Zones) – Table 140-1. Therefore, such contentions should be denied in their entirety.

For the reasons above, the Hearings Officer should find that this is criterion is met.

C. Benefit. Public benefits of the proposed use outweigh any impacts that cannot be mitigated;

Response: The Applicant has identified several public benefits from the proposal (Staff Report Exhibit A-12, at 9). The proposed use will operate largely outside of the hours of operation of the nearby businesses, with the exception of nearby hotels, bars, and restaurants which will likely benefit from the increased after-hours business activity. The proposed development is expected to produce public benefits in large part because its higher level of activity will likely reduce the presence of discarded waste, abandoned cars, crime, and illegal camping, all of which have recently been observed in the vicinity. Additionally, the development will

be accompanied by public infrastructure improvements surrounding the block, which will improve the safety and security of the pedestrian environment for people who live and work in the district. Staff Report Exhibit A-12, at 9; see also, Exhibit 16.

As further reflected in the Economic Impacts Analysis, the proposed use also provides extensive public benefits that positively contribute to the Central City. See Exhibit 36, at 4-37. As described in detail in the analysis, these benefits include: new employment, payroll, spending with local vendors on construction and operations, new tax revenue, and indirect and induced economic activity to the surrounding area. *Id*.

Further, the only "impact" are the amount of trips the site generates, as summarized in the TIS. Mitigations are summarized in the TIS and transportation and parking demand management (TDM) and include public frontage improvements and TDM methods. See Staff Report Exhibit A-10, Section 1. There are simply no impacts that cannot be mitigated. In fact, as expressly found in the Staff Report, there are no identified negative impacts from the proposed use that cannot be mitigated. Exhibit 5, at 11. As noted above, the venue would largely operate outside the hours of operation of most businesses in the industrial area, and as stated in the findings above for criterion A, public services, including the transportation system, are adequate to accommodate the proposed use.

Project opponents present novel and expansive interpretations of the conditional use standards. Such interpretations focus on the "benefit" standard at 33.815.215.C, which states "Public benefits of the proposed use outweigh any impacts that cannot be mitigated." The thrust of opponent arguments is that the Hearings Officer should interpret the phrase "any impact" as broadly as possible to include their misgivings about the future economic impacts on unspecified other venues from speculative business practices by the affiliated companies of the operator of the proposed venue. To articulate this overbroad interpretation is to reject it.

Such an overbroad interpretation is inconsistent with the purpose of the Major Event Entertainment conditional use standards, which is to ensure that the impacts of such uses "are not harmful to surrounding areas and that transportation services are or will be sufficient to serve the use." PCC 33.815.215. Impacts to the surrounding area and transportation services are typical land use standards applying a geographically constrained analysis related to land use impacts such as noise, light, traffic, etc. In contrast, opponents would interpret the criteria to regulate uncertain economic outcomes that would occur at an unknown time and place. The Hearings Officer should decline to extend the conditional use standards in such a fashion.

Finally, a project opponent (Exhibit 35) contends that there no public benefits that flow to industrial uses and such use improperly develops an industrial lot as a non-industrial use. These contentions are simply misguided. As an initial matter, without the proposal, the lot would remain vacant and unproductive as it has been since July 2007, and would continue to consist of unimproved roads. See Exhibit 45, at 1-2; see also Exhibit 48. With the proposal however, as noted above, the proposed use provides extensive public benefits to the surrounding uses and area including public infrastructure improvements and benefits to local industry activity (e.g. employment, income, or business revenues). Exhibit 36, at 4-37; see also, Exhibit 16.

In fact, as prioritized in the Governor's Central City Task Force and the Mayor's Central City Recovery Plan, uses like the proposed venue use will revitalize the Central City by generating

more activation points and increased foot traffic. See Exhibit 47; see also, See Exhibit 36, at 4-37. Specifically, the proposed use addresses the many challenges facing Central City Portland in the wake of the COIVD-19 pandemic by increasing "activation and reconnection" (especially in previously vacant spaces), which is a priority identified by the Task Force. The proposed venue use also specifically aligns with the goals outlined in the Central City Recovery Plan, which also prioritizes immediate impact actions like "generating more events and public activations." Exhibit 47, at 57, 60-61.

Further, project opponents appear to argue that the proposed venue use is not consistent with industrial uses and that a Major Event Entertainment use should not meet approval criteria because it is not an industrial use in the industrial zone. Exhibit 35. Such contentions should be denied as a matter of law. Per code, all employment and industrial zones in the City conditionally allow Major Event Entertainment uses. See PCC Chapter 33.140 (Employment and Industrial Zones) – Table 140-1. Specifically, as reflected in PCC Chapter 33.140 Table 140-1, major event entertainment uses are allowed as conditional uses in the IG1 zone. Furthermore, as explained above, the proposed use will not hinder any nearby industrial uses as the proposed use will predominantly operate outside of the hours of nearby industrial uses. Thus, these contentions should be denied in their entirety.

Accordingly, because there are no negative impacts identified that cannot be mitigated and which public benefits must outweigh, the Hearings Officer should find that this criterion is not applicable.

D. In the campus institutional zones. These approval criteria allow Major Event Entertainment facilities to be part of an institutional campus. They also ensure that the impacts of the facility on nearby areas are mitigated and that affected neighbors have an opportunity to comment on the proposals for mitigation. The approval criteria are:

1. *The facility is to be established as part of a school or college. Such facilities are prohibited as part of a medical center campus;*
2. *The facility is limited to events that feature the athletic or performance skills of students, faculty or staff or which supplement the institution's programs;*
3. *In the IR zone the facility is listed in the mission statement as part of the institution's impact mitigation plan;*
4. *In the IR zone the mitigation activities completed to implement the impact mitigation plan are adequate to mitigate for the expected impact of the facility. The location chosen and mitigation measures used are consistent with the institution's approved impact mitigation plan; and*
5. *All approved limited uses and major event entertainment uses in aggregate occupy 30 percent or less of all campus net building area including portions of parking structures associated with these uses. If the institutional campus includes structured parking, 250 square feet of the structured parking will be associated with the major event entertainment facility for each parking space associated with the facility. Size exceptions are prohibited.*

Response: This site is not in a campus institutional zone, thus these criteria are not applicable to the Application.

III. Adjustments Review

The Application requests two adjustments:

- To reduce the minimum number of on-site, Standard A truck loading spaces from 2 (Zoning Code Section 33.266.310.C.2.c) to instead provide loading area partially on-site and partially within SE Main Street right-of-way.

- To reduce the amount of ecoroof area required from 10,872 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 4,670 square feet (Zoning Code Section 33.510.243.B.1).[1]

The adjustment standards are addressed below.

PCC 33.805.040 – Approval Criteria

A. Granting the adjustment will equally or better meet the purpose of the regulation to be modified; and

Loading Response: PCC 33.266.310.A states the purpose of the on-site loading space requirement:

> "A minimum number of loading spaces are required to ensure adequate areas for loading for larger uses and developments. These regulations ensure that the appearance of loading areas will be consistent with that of parking areas. The regulations ensure that access to and from loading facilities will not have a negative effect on the traffic safety or other transportation functions of the abutting right-of-way."

The Applicant proposes to intermittently utilize a portion of the SE Main Street right-of-way for truck loading. The proposed loading area will accommodate two large trucks simultaneously, consistent with the number of loading spaces required by code (PCC 33.266.310.C.2.c) and the loading area would be as large as would be required by code (PCC 33.266.310.D.1). The loading area will be adequate to serve the proposed venue, and meets all code standards other that being entirely within the site. The record contains no argument or evidence to the contrary. Thus, the purpose of providing "A minimum number of loading spaces … required to ensure adequate areas for loading for larger uses and developments" is equally or better met by the proposed adjustment.

The appearance of the loading areas will be consistent with that of required parking areas. Here, there are no required on-site parking areas, and the proposed loading areas will be visually standard loading areas consistent with required setbacks, and indistinguishable when trucks are not present from other loading areas. Similarly, the Staff Report expressly found that the street would not have the appearance of a loading area or parking area when not in use for truck loading, and using the public street for loading rather than creating a dedicated loading area on-site reduces visual impacts by reducing the amount of pavement area required for the proposal. Exhibit 5, at 12. The record contains no evidence or argument to the contrary. Thus, the purpose of ensuring that "appearance of loading areas will be consistent with that of parking areas" is equally or better met by the proposed adjustment.

[1] The Applicant has revised its Application to increase eco-roof areas from 12% to 43%. See Exhibit 36, at 39.

The Applicant has provided a detailed analysis of loading-related truck movements and traffic control plans to ensure traffic safety and continuous transportation functionality while trucks are loading and accessing the loading area. The TIS includes a traffic control plan illustrating how vehicle, bike, and pedestrian travel will be maintained on SE Main Street during the time that trucks are loading. The final measures and improvements are subject to the public works and angle loading permitting process, but the Applicant has presented feasible plans that achieve the following traffic safety measures:

- SE Main Street remaining accessible to two-way vehicular and bicycle traffic at all times. Even with the largest trucks loading, no less than 21.6 feet of the street will remain usable for vehicles. 20 feet is the standard minimum width to accommodate two-way traffic.

- Full signage and certified flagger support for truck movements to access the loading area.

- Swinging gate that closes the sidewalk and landscape area, directing pedestrians to use the sidewalk on the other side of SE Main Street when trucks are present in the loading area.

[Staff Report Exhibit A-10, at 35-36]. Further, construction of the venue would result in improvements to adjacent rights-of-way resulting in substantial improvement for transportation functionality of the adjacent rights-of-way. The improvements are listed at Table 21 of the TIS and benefit all modes of transportation [Staff Report Exhibit A-10, at 55-56]. Currently, the abutting street improvements do not meet City standards and result in conflicts between modes. Exhibit 48, at pages 2 and 3, show a pick-up truck of a local services provider navigating the current illegal angle parking on SE Salmon and lack of sidewalk improvements resulting in pedestrians in the vehicular travelway.

City staff evaluated and the TIS and concurred with Applicant, finding that the loading area adjustment in this case would not have a negative effect on traffic safety or other transportation functions in the right-of-way, as long as the Applicant obtains and maintains continuous compliance with the appropriate angle loading permit determined by PBOT [Staff Report Exhibit E-2; Exhibit 16].

<u>Ecoroof Response:</u>

PCC 33.510.243.A states the purpose of the ecoroof requirement:

> Ecoroofs provide multiple complementary benefits in urban areas, including stormwater management, reduction of air temperatures, mitigation of urban heat island impacts, air quality improvement, urban green spaces, and habitat for birds, plants and pollinators. The standards are intended to:
>
> - Maximize the coverage of ecoroofs;
> - Allow for the placement of structures and other items that need to be located on roofs; and
> - Support the architectural variability of rooftops in the Central City.

The Applicant agrees with the findings of the Staff Report that the proposed adjustment equally or better meets the purposes of the ecoroof requirement [Exhibit 5, at 12-13].

Since the hearing, the Applicant has modified the ecoroof plans in a manner that furthers meets such purposes.

Specifically, the applicant proposes to increase the square footage of ecoroof provided, going from 2,100 to 4,670 square feet [Exhibit 36, at 39] The applicant has also provided additional analysis of the roof design and area required to meet the ecoroof requirement. The outcome of these modifications has been an ecoroof proposal that meets 43% (i.e. 4,670 sq ft of the required 10,872 sq ft) of the unadjusted ecoroof standards, where it previously met 14% of the unadjusted ecoroof standards (i.e. 2,100 sq ft of 14,617 sq feet).

While 4,670 square feet of ecoroof is proposed over parts of the roof, the long spans of the sloped roof areas are not capable of supporting the weight of additional ecoroof area. See Staff Report Exhibit A-6, at 3. As found in the memorandum by DCI Engineers, an ecoroof area can add up to 1,243,000 pounds, which is 20% increase in mass to the structure. Exhibit 36, at 3. With the structural challenges identified in the memorandum, reducing eco-roof weight on the subject structure as much as possible is recommended to reduce gravity and seismic loads to the structural framing, lateral system, and piles, given the low quality soils and depth of fill. *Id.*

As such, with more eco-roof weight added to the building structure itself, the additional tons in steel and concrete would significantly increase CO2 emissions. In fact, with the proposed adjustment, approximately 222 tons of CO2 emissions generated from additional steel is avoided and 289 tons of CO2 emissions generated from additional concrete is avoided. See Exhibit 47, at 64-65. That amount of avoided emissions is equivalent to driving a typical passenger vehicle for about 1,130,400 miles, an annual electrical use of approximately 90 average American homes, and burning around 1,057 barrels of oil. Exhibit 47, at 66. Such CO2 emissions offset many of the environmental benefits of compliance with the full ecoroof standard, and the air quality purpose of the standard is particularly better met by avoiding such emissions and providing 43% of the required ecoroof.

Further, without this adjustment, construction of an ecoroof would be cost-prohibitive totaling up to nearly $4.2 million to increase the foundation piles and upsize the roof trusses and structural steel elements as found to be necessary to support full ecoroof compliance by DCI Engineers [Exhibit 36] and as demonstrated in the cost analysis prepared by Colas Construction [Exhibit 38]. Therefore, the proposed adjustment meets the overall purpose of the eco-roof requirement by maximizing the amount of ecoroof that can be provided without over-engineering the building so as to be economically infeasible.

Additionally, with this adjustment and as found in the Staff Report, the proposed building design illustrated in Applicant's Exhibit C-4 would be unique in the area, supporting architectural variability as noted in the purpose statement above [Exhibit 5, at 13]. The Application creates meaningful, complementary benefits that are intended to be provided by ecoroofs in the purpose statement above. *Id*. Besides the 4,670 square feet of ecoroof area, Applicant also proposes the following:

- 1,500-square-foot stormwater planter on the south side of the building that exceeds the stormwater management requirements for ecoroof area (Exhibit 36, Floor Plan – Roof; Exhibit 36, Planting Plan);

- Stainless steel cables would allow plants to climb toward the roof (Staff Report Exhibit C-4); and

- Planting of new street trees adjacent to the site (Staff Report Exhibits C-1 and E-8).

With these features, the site would be much greener than it is currently and would appear greener than typical for sites in the industrial area. While most of the new greenery does not qualify as ecoroof area under PCC 33.510.243.B.2, all the new plants and trees will reduce stormwater runoff, improve air quality, mitigate heat island impacts, and provide habitat for birds and insects. The stormwater management requirements for the site will be fully met (Staff Report Exhibit E-1), and the landscaping plan for the ecoroofs and the other planters includes several plant varieties known to attract pollinators (Staff Report Exhibit A-8, at 14-15); thus, the proposed ecoroof design equally meets these goals. See also, Exhibit 36, Roof Floor Plan; and Exhibit 36, Planting Plan. The planters would utilize a geocell grid to prevent soil erosion, and that plantings would be denser than typical. Staff Report Exhibit A-12, at 16. The Applicant also previously submitted an operations and maintenance plan that would promote the long-term success of the planters (Staff Report Exhibit A-11). Again, without these green features, the lot would continue to be a vacant, un-vegetated combination of paving and gravel [Exhibit 45, at 1; Exhibit 48]. Thus, with these measures, the proposed adjustment will exceed the purpose of the eco-roof standards.

Furthermore, the roof will consist of Thermoplastic Polyolefin (TPO) roofing material for heat island reduction. See Exhibit 36, at 2. Specifically, un-planted roof areas would be white TPO roof material. As evident by Applicant's Exhibit 36, such roofing materials have highly reflective properties that effectively reflect solar radiation to reduce heat island impacts. *Id*. In effect, the proposed adjustment would meet the purpose of the eco-roof standards by reducing heat islands and air temperatures.

For all these reasons, the purposes of the ecoroof standards are better met by the proposed adjustment.

B. If in a residential, CI1, or IR zone, the proposal will not significantly detract from the livability or appearance of the residential area, or if in an OS, C, E, I, or CI2 zone, the proposal will be consistent with the classifications of the adjacent streets and the desired character of the area; and

Response: Since the site is in an industrial (I) zone, the adjustments must be consistent with (1) the classifications of adjacent streets; and (2) the desired character of the area. The Applicant agrees with the findings of staff that the proposal complies with this criterion [Exhibit 5, at 13-16] and provides additional reasons explained below.

1) Street classifications:

The adjustment to the loading requirement would allow SE Main Street, which is classified as a Freight District Street, to be used for truck loading for this development. PBOT is supportive of this request. Staff Report Exhibit E-2; see also, Exhibit 16, at 5-6. PBOT noted that truck loading has been traditionally accommodated in the right-of-way in this area, and that with continuous compliance with a PBOT-approved loading permit, negative impacts on streets adjacent to the site are not expected. *Id*.

The adjustment to the ecoroof requirement affects only the interior of the site and would have no impact on travel demand or the function of adjacent streets. With the condition of approval recommended by PBOT for the Angle Loading Permit, the Hearings Officer should find the proposal is consistent with the adjacent street classifications.

2) Desired character of area:

"Desired character" is defined in PCC Chapter 33.910. Pursuant to this definition, the desired character for this site is determined by:

- the character statement for the IG1 zone
- the purpose statement for the Central City Plan District
- the Buckman Neighborhood Plan
- the Central City 2035 Plan

As identified in the statements and plans above, the desired character area for this site are addressed in detail below.

IG1 zone
The character statement for the IG1 zone is in Zoning Code Section 33.140.030.C:

> *The General Industrial zones are two of the three zones that implement the Industrial Sanctuary map designation of the Comprehensive Plan. The zones provide areas where most industrial uses may locate, while other uses are restricted to prevent potential conflicts and to preserve land for industry. The development standards for each zone are intended to allow new development which is similar in character to existing development. The intent is to promote viable and attractive industrial areas.*
>
> *1. General Industrial 1. IG1 areas generally have smaller lots and a grid block pattern. The area is mostly developed, with sites having high building coverages and buildings which are usually close to the street. IG1 areas tend to be the City's older industrial areas.*
>
> *2. General Industrial 2. IG2 areas generally have larger lots and an irregular or large block pattern. The area is less developed, with sites having medium and low building coverages and buildings which are usually set back from the street.*

The new building would cover most of the lot and would be close to each of the abutting streets, and as discussed above in the Conditional Use Review findings under PCC 33.815.215.A, the quality building design would be compatible with nearby development and contribute to a more attractive industrial area more appealing to other uses including industrial. Thus, the Hearings Officer should find that the Application is consistent with the character intended for the IG1 zone, and that neither of the adjustment requests would detract from this character.

Central City Plan District
The purpose statement for the Central City Plan District is in Zoning Code Section 33.510.010:

> *The Central City plan district implements the Central City 2035 Plan. The regulations address the unique role the Central City plays as the region's premier center for jobs, health and human services, tourism, entertainment and urban living. The regulations encourage a high-density urban area with a broad mix of commercial, residential, industrial and institutional uses, and foster transit-supportive development, pedestrian and bicycle-friendly streets, a vibrant public realm and a healthy urban river.*

A new concert venue for 3,500 spectators at this location would broaden the use mix in the Central Eastside and reinforce the Central City's role as the premiere location in the region for entertainment and tourism. The location is easily accessible by multiple transit lines, and pedestrians and cyclists can easily access the site from the nearby Eastside Esplanade as well as from the neighborhood street grid. Neither of the Adjustment requests would detract from the purpose of the Central City Plan District.

Furthermore, as reflected in the Economic Impact Analysis (Exhibit 36, at 4-37), the proposal positively impacts and contributes to the Central City. These positive impacts include new employment, payroll, spending with vendors on construction and operations, new tax revenue, and indirect and induced economic activity as desired by the Central City 2035 Plan. *Id*.

Thus, the Application is consistent with the purpose statement for the Central City Plan District.

Buckman Neighborhood Plan
As identified in the Staff Report, the following objectives from the Buckman Neighborhood Plan are relevant for purposes of this Application:

> *Objective 1.6. Support planning and design of new developments that enhance neighborhood livability.*
>
> *Objective 1.7. Promote the development of a clear identity for commercial nodes on Burnside, Belmont/Morrison, Hawthorne and the Central Eastside.*
>
> *Objective 5.1. Control neighborhood traffic and parking to ensure safety and livability for neighborhood residents.*
> *Objective 5.2. Encourage alternatives to automobile use.*
>
> *Objective 5.10. Discourage trucks from blocking the streets when loading and unloading, except in the designated truck zone.*
>
> *Objective 6.16. Encourage visual, literary, and performing arts to thrive in Buckman.*
>
> *Objective 7.2. Encourage pedestrian-oriented commercial development.*

Here, the proposal would create a new destination and amenity in the Buckman Neighborhood, support the performing arts, and contribute to a higher profile for the Central Eastside. Since the concert venue would be several blocks from residential areas, impacts on neighborhood livability are minimal.

The development would have a pedestrian-oriented design with the building facades close to the street lot lines, improved public sidewalks, and no on-site motor vehicle parking. In fact, PBOT found that street parking in the vicinity would be adequate to support the development, and PBOT also recommended a condition of approval to require compliance with a transportation demand management (TDM) plan to limit single-occupancy vehicle trips associated with the proposed use. Staff Report Exhibit E-2; see also, Exhibit 16.

The adjustment to the loading requirement would allow trucks to partially, but not fully, block SE Main Street when loading or unloading, but only within a designated, PBOT-approved truck loading area. As recommended by PBOT, the Applicant will obtain an approval of and comply with an appropriate permit as determined by PBOT to prevent truck loading from significantly impacting the functions of the public right of way in SE Main Street. Staff Report Exhibit E-2; see also, Exhibit 16.

Project opponents argue that the Objective 5.10 cannot be met. However, the loading proposal is consistent with objective 5.10 because loading in the street is limited to the portion of SE Main Street within the proposed loading area. In short, the loading area is the designated truck zone.

Central City 2035 Plan

As identified in the Staff Report, the following statements from the Central City 2035 Plan are relevant for purposes of this Application:

> *Goal 1.A. Portland's Central City is the preeminent regional center for commerce and employment, arts and culture, entertainment, tourism, education and government.*
>
> *Policy 1.1. Regional image. Strengthen the roles of the Central City and Willamette River in enhancing a positive image for the city, region and state.*
>
> *Policy 1.4. Tourism, retail and entertainment. Expand upon activities in the Central City that support tourism and complement economic success, vibrancy, and livability, with a special focus on retail, cultural events and institutions, public spaces, arts and entertainment, urban design, and transportation.*
>
> *Policy 1.CE-1.a. Industrial center. Protect the Central Eastside as a centralized hub of industrial businesses and services that support the regional economy by serving other industrial districts and businesses located throughout the Portland metropolitan area.*
>
> *Policy 3.16. Loading. Support the delivery of goods in the Central City. Pursue strategies that bring new ways of delivering goods to the Central City in a way that optimizes loading and freight access and makes efficient use of limited urban space.*
>
> *Policy 5.6. Distinct and vibrant districts. Enhance the existing character and diversity of the Central City and its districts, strengthening existing places and fostering the creation of new urban places and experiences.*
>
> *Central Eastside 2035 Vision. The Central Eastside is a large, multimodal and vibrant employment district where existing industrial and distribution businesses*

continue to thrive while the district's job base grows and diversifies to attract new and emerging industries.

The new investment on this site would broaden the use mix in the Central Eastside, reinforce the Central City's role as the region's premiere location for entertainment and tourism, and support a positive image of the city as a vibrant, healthy community. The venue will activate a site that has been vacant, and an area where restaurant and retail uses will benefit from the influx of venue patrons.

Since the site is at the edge of the industrial area, and since the concert venue would operate in the evenings, the proposal would not significantly impact neighboring industrial businesses, which operate primarily in the daytime.

The adjustment to allow truck loading from the SE Main Street right-of-way is supported by PBOT (Staff Report Exhibit E-2 and Exhibit 16) and would make efficient use of urban space by avoiding the need for a separate truck loading area on-site. For these reasons and as expressly found in the Staff Report, the Hearings Officer should find the proposal is consistent with the Central City 2035 Plan.

For the above reasons, this criterion is met.

C. If more than one adjustment is being requested, the cumulative effect of the adjustments results in a project which is still consistent with the overall purpose of the zone; and

Response: PCC 33.140.030.C describes the purpose of the IG1 zone:

> "The General Industrial zones are two of the three zones that implement the Industrial Sanctuary map designation of the Comprehensive Plan. The zones provide areas where most industrial uses may locate, while other uses are restricted to prevent potential conflicts and to preserve land for industry. The development standards for each zone are intended to allow new development which is similar in character to existing development. The intent is to promote viable and attractive industrial areas…"

The new building would cover most of the lot and would be close to each of the abutting streets, and the quality building design would contribute to a more attractive industrial area. The proposal is therefore consistent with the purpose statement above. In particular, the adjustment for loading will allow the required number of loading spaces in a more urban setting, which is quite typical within the Central Eastside industrial area. See Staff Report Exhibit A-12, at 17; see also, Exhibit 16. Further, as in the present instance, being located in the Central Eastside Industrial Sanctuary, truck loading has historically been accommodated in the ROW with review from PBOT via a loading permit as determined by PBOT or equivalent. Exhibit 16, at 5-6.

The ecoroof adjustment will allow for less ecoroof coverage than required, but the proposal includes several unique and innovative green design features, including partial eco-roofing combined with stormwater facilities to meet the purpose of the standard as noted above. See Exhibit 36 – Email from Doug Sheets, at 2; Exhibit 36 – Planting Plan, at 38; Exhibit 36 – Eco-roof Area Plan, at 39. Thus, whether considered individually or cumulatively, the effects of the adjustments do not detract from the proposal's consistency with the purpose of the IG1 industrial zone.

Ultimately, the proposed venue will have trip peak hours that do not overlap with peak hours for industrial uses in the Central Eastside, presenting a low-conflict means to benefit the existing restaurant and retail operations in the neighborhood and surrounding areas.

For the above reasons, this criterion is met.

D. City-designated scenic resources and historic resources in Historic, Conservation and National Register Districts and within the boundaries of Historic, Conservation and National Register Landmarks are preserved; and

Response: City-designated scenic resources are identified on zoning maps with an "s," and historic resources are identified either with a dot or as being within the boundaries of a Historic or Conservation district. Because there are no scenic resources or historic resources mapped on the subject site [Staff Report Exhibit B], this criterion is not applicable.

E. Any impacts resulting from the adjustment are mitigated to the extent practical; and

Response: The adjustment to the requirement for an on-site loading area is mitigated by the proposed loading area within the SE Main Street right-of-way [Exhibit 5, at 17; Staff Report Exhibit A-12, at 18; Exhibit 16, at 5-6]. Although off-site loading areas do not count toward the loading requirements, the proposed loading area would be adjacent to the building's loading and staging room [Staff Report Exhibit A-8, at 2] and would meet the dimensional requirements that would apply to an on-site loading area (33.266.310.C.2.c and 33.266.310.D.1). The proposed loading area effectively provides equivalent loading area and capacity to that required by the loading requirements of 33.266.310, and mitigating the impact of providing fewer on-site loading areas.

Another impact is that when trucks are loading, a portion of the SE Main Street right-of-way will be blocked. To mitigate this impact, the Applicant proposes various measures to ensure that SE Main Street will be safe and functional for all modes of transportation. The TIS includes a traffic control plan illustrating how vehicle, bike, and pedestrian travel will be maintained during the time that trucks are loading. The final plans and improvements are subject to the public works and angle loading permitting process, but SE Main Street will:

- Be accessible to two-way vehicular traffic. Even with the largest trucks loading, no less than 21.6 feet of the street will remain usable for vehicles. 20 feet is the standard minimum width to accommodate two-way traffic.

- Reduction to on-street parking on the southern side of SE Main.

- Full signage and certified flagger support for truck movements to approach the loading area.

- Swinging gate that closes the sidewalk and landscape area, directing pedestrians to use the sidewalk on the other side of SE Main Street when trucks are present in the loading area.

[Staff Report Exhibit A-10, at 35-36]. Impact of the loading adjustment is further mitigated by the dead end nature of vehicular traffic on the section of SE Main Street west of SE Water

Avenue and all adjacent lots being vacant. The vehicle trip counts are substantially lower than a comparable through street [Staff Report Exhibit A-10].

The adjustment to the ecoroof requirement reduces the square footage of ecoroof coverage. This adjustment is mitigated by Applicant's use of a cool white roof for heat island reduction. Exhibit 36, at 2. Further, the proposed plans satisfy the on-site stormwater management requirements with the proposed ecoroof area, thus mitigating any reduction in stormwater benefits associated with a larger ecoroof area.

Accordingly, the Hearings Officer should find that any potential impacts of both adjustments are mitigated to the extent practical and that this standard is therefore met.

F. If in an environmental zone, the proposal has as few significant detrimental environmental impacts on the resource and resource values as is practicable

Response: Environmental overlay zones are designated on zoning maps with either a "p" (Environmental Protection overlay zone) or a "c" (Environmental Conservation overlay zone). Because there are no environmental overlay zones mapped on the subject site (Staff Report Exhibit B), this criterion is not applicable to the Application.

IV. Response to Issues Unrelated to Approval Criteria

A. Venue Operator

The City is not tasked with approving the venue operator, only the venue. Project opponents make various arguments about the business practices of the proposed operator of the proposed venue [Exhibits 13, 18, 25, 26, 31, 32, 33, and 35]. Those arguments are inapposite to this land use review and thus are not worth repeating here. Ultimately, the Hearings Officer need not engage in this line of argument because it is unrelated to any applicable approval criteria.

The Hearings Officer can similarly discount arguments that the operator is inherently part of the use and therefore part of the review [Exhibit 35, at 11]. This argument is unmoored from the language of the code, which is clear that the use being proposed is Major Event Entertainment, which is agnostic of the operator (public, private, large, or small). PCC 33.920.230. Demonstrating the point is that the application is not dependent on the proposed venue operator being the operator and should the lease end or be terminated, the owner could contract with a new venue operator. Another variation on the theme is the argument that the physical venue is designed so that only the proposed venue operator could ever operate the venue [Exhibit Exhibit 35, at 11]. No specific design elements supporting this argument are identified. The Applicant has provided a comparison of the floor plan of the proposed venue with that of an existing and planned venue of comparable size, both with a different operator [Exhibit 46]. This comparison shows that the design elements and layout of the proposed venue is typical for similar sized venues and is not operator specific. *Id*.

B. No Public Subsidy

Project opponents assert that the proposed venue is reliant on receiving a public subsidy [Exhibits 35 and 43]. This is incorrect. The property will be sold to Applicant for fair market value and no public funding is being provided for construction or venue operations.

Accordingly, assertions that the conditional use standards be applied differently based on the existence of public subsidy need not be addressed by the Hearings Officer.

C. Untimely Submittals

Project opponents submitted new evidence during the second week of the post-hearing open record (7.17.24 to 7.24.24), after the deadline established for such evidence by the Hearing Officer for such evidence. Specifically, Exhibit 41 constitutes new evidence that is not responsive to evidence submitted during the first week of post-hearing open record (7.10.24 and 7.17.24). Exhibit 41 is an analysis of the TIS, which was an exhibit to the Staff Report and has been in the record since May. The Applicant submitted no transportation-related evidence during the first week of the post-hearing open record period. Accordingly, the Hearings Officer should reject Exhibit 41 as untimely filed and decline to include it in the record.

However, should Exhibit 41 be included in the record, please note that it contains no independent analysis or new data. Rather, it is comprised of a traffic engineer's generalized statements of agreement with argument presented by a non-expert in Exhibit 35.

D. Other ecoroofs. A project opponent contends that the proposed eco-roof design could do more because there are examples of larger eco-roofs on similar venues in other places [Exhibit 30]. First, this contention does not relate to any approval standard, and this review is based solely on the design of the proposed building—not other buildings. Second, the identified buildings in Exhibit 30 are not comparable to the proposed venue for various reasons. These buildings are significantly larger in size, budget, and scale, and have dramatically differing geotechnical considerations [Exhibit 37, at 10]. In sum, the passing references to other venues does not result in a meaningful comparison of site and design comparisons for the proposed venue.

V. Conclusion

For the above-stated reasons, the Application meets all applicable approval standards and criteria. The Applicant respectfully requests that the Hearings Officer approve the Application.

Portland City Council Agenda
Written Testimony - Item 812

	Agenda Item	Name or Organization	Comments	Attachment	Created
1	812	Sydan Aguacielos	Hello! I hope this message finds you well and in great spirits!! I had the opportunity to go to the Hozier concert last night at a Live Nation venue. I live in Beaverton and it took me 2.5 hours to drive and finally park. Then, was completely shocked at the only option for a low abv beverage which is about $4 in a gas station, I paid $23.43. That's almost a $20 markup for 1 drink!! 1!!! Traffic is already an issue in Portland. If Live Nation is brought here, weekend traffic will be unbearable and it honestly should be against the law for refreshment markups so outrageous. Especially when you can't even bring your own water in. You're forced to buy something. Please don't let them build a venue here. Thank you for your time.	No	09/10/24 10:06 AM
2	812	Adrian J Musician	Since the merge of Live Nation and Ticketmaster the music industries most important members, the musicians, have been crippled and sucked dry of their ability to convey their work to the public without the avariciously over powering control of the two companies! It would be against the fabric that made up this cities music scene to let live nation in to do what they've done to other cities. Portland and much of its artist are all for small business and preach against the corporate greed that live nation and Ticketmaster practice. If this permit is passed so many of us will stop going to shows all together. Portland and its artists will never side with corporate greed, it's that simple!	No	09/13/24 12:51 PM
3	812	Scott Van Dusen	Regarding the Hearings Office approval of the conditions for Live Nation to develop a venue in the Central Eastside, I urge Council to grant the appeal requested my Music Portland. There are two entertainment venues in the works; this one, and a better one being planned and developed by Monqui Presents. The property being planned in the Central Eastside, owned by Prosper Portland, requires too many conditional use adjustments. Moving truck parking to the right-of way will add congestion, visibility and safety issues. Parking to be used for concert-goers will largely be on the other side of the train tracks. A stopped freight train between the venue and your car can mean everything to the concert experience. The Monqui project at Lloyd Center has existing mall parking structures, and easy access to all public transit. Plus the venue planned will be larger in capacity. We don't need two new large venues, we need one that fits best in Portland. The Live Nation/Beam Development project may be in front of council first, but it's not the best. Add to this the US Justice Dept lawsuit against Live Nation accusing them of operating a monopoly. The Prosper Portland property in the Central Eastside was originally pitched by Beam Development as office & industrial space. Something closer to that for job creation would be appropriate. If you're going to consider denying the appeal from Music Portland, tell Live Nation/Beam that they need to get the trucks & bike parking off the street, build a pedestrian bridge over the tracks, and construct the Eco Roof closer to what was originally proposed. Thanks so much for your time. Scott Van Dusen	No	09/13/24 1:26 PM
4	812	Kate Custer	I do not support a live nation venue being established in Portland, OR. Livenation and Ticketmaster already have a monopoly on ticket sales and music venues across the US and Portland must resist these companies tactics of buying venues and pushing out local owners. I encourage city council to reject Livenation and Ticketmaster venues in Portland to encourage our local economy and music.	No	09/13/24 2:20 PM
5	812	Bunk Bar	I am writing in support of the Central Eastside music venue as it will be a lineline to small businesses in the neighborhood	Yes	09/13/24 2:38 PM

My name is Nick Wood and I'm an Owner/Operator at Bunk Bar/Bunk Sandwiches which is across the street from the proposed venue. We've been in business on SE Water Ave for 14 years and in business in Portland for 16 years. I am writing in support of the proposed venue.

For as long as I've been in the neighborhood the site has been three blocks of blighted empty lots. Those empty lots do not contribute to the character of the neighborhood in any way. Our neighborhood needs something new to breathe life into it, especially at night. We close at 8pm because the neighborhood is pretty empty at night. A lot of businesses have left their offices in the neighborhood over the years so our days aren't as good as they used to be either. At least three bar and restaurant businesses have closed in the area in the past year or so.

We get by selling food on the delivery apps and we do some catering but we need more foot traffic in the neighborhood. Bringing 3500 or so people on a given night to this neighborhood would be a lifeline to us and all the small businesses in the area and with it hopefully we'll still be here for another 14 years, without it, I'm not really sure.

Nick Wood
Owner/Operator
Bunk Bar/Bunk Sandwiches

	Agenda Item	Name or Organization	Comments	Attachment	Created
6	812	Hannah Hope	I support the appeal. Keep live nation out of Portland and don't give them our money.	No	09/13/24 3:47 PM

Agenda Item	Name or Organization	Comments	Attachment	Created
812	Anthony Bayles	Hello, Portland Mayor and City Council Members — I'm writing to express my concern over the proposed Public Land Use for the Ticketmaster Live Nation venue project on Water Avenue. It seems pertinent that City Council should well evaluate the business operating practices of Live Nation before commencing with final approval of the project. I can accurately say that Ticketmaster Live Nation's business practices are to decimate competition that gets in the way of their operations. It should also be worth your time looking into how the RFP that Beam won for multi-use and office space turned into neither of those things - but solely a concert venue - without due process from the City or the public. It's of no fault of the public that simply because building office spaces is not currently economically viable, that the public land should now be used for a venue directly controlled by the world's largest concert promoter and ticketing company who is under investigation from not only the US Department of Justice but also the State of Oregon. At the bare minimum, the public should have a say on how that public land is used. And that was not the case here. Office space became a concert venue without due process. It's false to say, as you may have heard, that more competition leads to greater public good. That is a common refrain I've been hearing regarding this project. In this case, given how the concert business work, the notion that more venues makes for more competition and greater public good (i.e., lower prices) is not accurate. When a product can only exclusively be sold by one company, there is no competition. They who bid the highest on the rights to sell that product will be the winner. And to do so, the cost of winning the rights to sell that exclusive product is passed directly on to the consumer. Hence, the higher and higher prices and “fees” for concert tickets, food and beverage at said events, and parking at events. It's also false to say that this venue will bring the large scale artists that often skip playing a concert in the market. That is patently not true. Artist who can routinely sell 3000 to 5000 tickets play the market quite frequently. One look at the yearly schedules of concerts at Edgefield, Memorial Coliseum, Theater of the Clouds, PDX Live at the Square and Grand Lodge Concerts, Schnitzer Theater, and Keller Auditorium are booked solid throughout the year and / or their operating periods. To note is that Live Nation promotes the vast majority of the concerts that occur at Theater of the Clouds - a 3,000 to 6000 capacity venue of its own. Live Nation also promotes the majority of concerts (music and comedy) at Moda Center, Memorial Coliseum, Keller Auditorium, and Schnitzer Theater. Of which Moda Center, Memorial Coliseum, and Theater of the Clouds are Ticketmaster venues. Not to mention Ticketmaster and Live Nation's exclusive rights to promote concerts in RV Inn Style amphitheater. Is it really necessary for the City of Portland to give public land for an event venue to a national company that is deeply flawed, anti-competitive, and one who already has many venue options in and around the city already? Thank you for your time, Anthony ps. I do reside in Beaverton, but work in Portland. My office is directly across the street from this proposed venue location.	No	09/13/24 3:50 PM

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	Agenda Item	Name or Organization	Comments	Attachment	Created
8	812	J M	Please do not allow LiveNation to destroy one of the very best things about Portland: the local music scene. This company is predatory, with no interest beyond their own profits - they will serve only to line the pockets of out of state investors with the hard work and passion of musicians and fans alike. Not only that - we don't in any way need this venue. Local bookers Monqui are working on a similar-sized venue, and have the support of the local music scene (the very people LiveNation will most directly exploit) Y'all need to learn to listen to the people who make up the local music community (and in general to the people who will most be impacted by your decisions) and stop handing public goods to rich assholes. Cancel the LiveNation venue now!	No	09/13/24 6:11 PM
9	812	Citizen	I support the appeal, which means I disagree with the decision to approve a new concert venue in the Central Eastside. Small community support will make way for diversity in music, and access to the consumer. Without that small community support will squash creativity and eliminate access to everyone to consume this type of art and poetry that we call music.	No	09/13/24 6:43 PM
10	812	Durant Haruna	I am a Portland resident and local DJ and I strongly oppose the proposed development of a LiveNation owned and operated music venue. The music scene in Portland is a vibrant part of our economy and culture. LiveNation will monopolize on this and push out local promoters and tip the scales out of balance and in favor of a large out of state corporation. Please honor the beautiful scene we have built from the ground up and support local artists and music venues.	No	09/13/24 6:57 PM
11	812	Jesselynn Amerling	Please do not bring Live Nation to Portland! Keep our music scene alive and local!	No	09/13/24 7:02 PM
12	812	Ken Thomas	Please do not allow a Livenation venue into Portland. They are a net negative to independent music and the antithesis of what Portland represents in arts and culture. Portland is known for its music scene and Live Nation exploits musicians and fans and provides a subpar service.	No	09/13/24 10:02 PM
13	812	Neil Crosby	I recently moved to Portland Oregon from out of state. I look forward to building a future here, establishing my career, and I hope to perform music with a band in the future. A large factor in my decision to move here was the incredible independent local music scene for which this city is know. In fact it was the single biggest factor in my decision. Ive worked in music and entertainment for quite some time, and I've seen what Live Nation does to venues, performers, and scenes. Hopefully their corrupt and anti competitive anti consumer monopoly will be broken up soon. However if the city of Portland moves forward with the approval for this venue then in all likelihood hood I won't renew my lease when it's up, and I'll take myself and my tax dollars elsewhere. Thank you for your time and I hope you make the decision your constituents hope for, rather than the decision preferred by businessmen in suits who don't live here that don't play or enjoy music.	No	09/13/24 11:02 PM
14	812	Jessica Ritland	I do not support a Live Nation venue in Portland. It will take money out of our already fragile live music scene and into the hands of a multinational corporation. Also the venue they want to build is in a dangerous place for getting to. We can do better. This foray is only going to benefit the powers that be and THE PEOPLE DON'T WANT THIS	No	09/13/24 11:20 PM
15	812	Chris Hammond	Live nation is a monopoly. They are an existential threat to any arts scene, and represent some of the worst practices of unchecked corporate greed.	Yes	09/14/24 6:12 AM

Hello,

Thank you for taking the time to read my thoughts. I do not want Live Nation anywhere near Portland. Their practices across the entire US are an anathema to art, and in my opinion represent an effective corporate monopoly on the music industry. Music is to be enjoyed by all people. Supporting local venues is the life blood for an art scene to find and produce young talent. Live Nation destroys this scene wherever it goes. It wants strict control over every artist in town. Portland is the last bastion of free expression and that is deeply integral to the culture of this place. To allow this would not just hurt the artists involved, it would hurt Portland itself. This is the spirit of 'Keep Portland Weird'. Portland must remain a place where new artists and locally owned venues can experiment with new talent. We know Live Nation would destroy this altogether. Do not let this happen. We will remember your decision on this when we vote.

Thank you for your time.

Sincerely,

Chris Hammond

	Agenda Item	Name or Organization	Comments	Attachment	Created
16	812	Callie Sacarelos	Live Nation is a monopoly that kills independent music culture. The company is currently being sued by the U.S. Dept. of Justice and 40 states, including Oregon, for violations of antitrust laws. The states seek to break up the Live Nation/Ticketmaster monopoly because the company has a long and documented track record of unfair business practices in music cities like Portland. Representatives from other major music cities, including Austin, Nashville, Chicago, Washington DC, and Des Moines, have outlined specific unfair and unethical practices that have devastated their local independent music industries, including: Purchasing and closing competing venues Building or acquiring a smaller capacity venue in close proximity to Live Nation venues to intentionally consolidate control of touring acts Subdividing its larger venue in a market, and booking smaller capacity shows there that would have otherwise gone to smaller independent venues Pressuring local venues to exclusively use its Ticketmaster software platform for all of their events in order to continue booking Live Nation shows Requiring local artists to sign extended proximity and exclusivity contracts, thereby limiting their ability/frequency to perform Requiring sponsors of music-facing events to sign extended proximity and exclusivity contracts Offering local promoters and artists the use of Live Nation spaces, but at above-market inflated prices Live Nation Entertainment is the largest live entertainment company in the world. Live Nation, based in Beverly Hills, Calif., owns or controls 338 music venues worldwide, including the Hayden Homes Amphitheater in Bend, the Gorge Amphitheatre in George, Wash., and Lumen Field in Seattle. It manages 410 bands, from U2 to Pitbull. It promotes concerts and, in 2010, bought Ticketmaster, giving it end-to-end control of the live music business. Luring Live Nation to Portland, the only large American city without a Live Nation venue, is like baiting a bear into your camp on Mount Hood. It might be entertaining for a while, but what happens when the beast won't leave? Portland is the LAST major city in the United States where independent music venues, artists, fans, labels, ticket companies, poster makers and a whole beautiful ecosystem exists without a Live Nation/Ticketmaster owned venue. In order to complete the Ticketmaster purchase, Live Nation had to guarantee the U.S. Department of Justice that the company wouldn't withhold Live Nation tours from independent venues that didn't care to sell tickets through Ticketmaster. But three years later, Live Nation moved a Matchbox Twenty show from the popular Gwinnett Center in Atlanta because it had stopped using Ticketmaster, according to The New York Times. one of Live Nation's biggest investors is Saudi Arabia's Public Investment Fund. The autocratic oil kingdom disclosed a $500 million stake in Live Nation in April 2020, just as COVID was raging and less than two years after Saudi journalist Jamal Khashoggi was murdered and cut to pieces in the Saudi embassy in Turkey in a plot the CIA says was directed by Saudi leader Mohammed bin Salman. We need a venue of this size, but not like this proposed development. We have no issues with these local agencies and developers. Our concerns are solely with Live Nation. It's the wrong location and the wrong operator for our city.	No	09/14/24 7:40 AM
17	812	Bryan Smith	Live Nation is a predatory corporation with terrible business practices that are getting it sued as a monopoly in Federal Court. As a long time resident of Portland I do not want a single cent of the Coty of Portland's money going to this greedy, money grubbing, monopolistic corporation. I support the appeal, which means I disagree with the decision to approve a new concert venue in the Central Eastside.	No	09/14/24 8:13 AM

	Agenda Item	Name or Organization	Comments	Attachment	Created
18	812	Nastacia Voisin	Please do not let Live Nation into our city. Institutions like Live Nation are a cancer to society. The pitch themselves as community builders, but they just end up over-charging, exploiting, and gatekeeping music with their aggressive contracts. Keep Portland's musics scene free and indie but saying no to Live Nation.	No	09/14/24 1:19 PM
19	812	Robert Withnell	I am a musician and music educator here in Portland. I'd like to join the appeal to prevent the approval of the new venue. Our venues should be run by small business owners who are incentivized to feature local and independent artists. Portland's culture rests on refusing to conform to the mistakes other cities in the U.S. have made. For the sake of myself, my colleagues, and my students, please make the correct decision and sustain our independent musical culture, which is filled with a wide variety of affordable entertainment and thereby maintains a character wholly unique to this city and these people.	No	09/14/24 5:26 PM
20	812	Reese	I strongly believe that live nation should NOT be welcomed into Portland's music scene. They have shown time and time again that they monopolize and drain the life out of independent music scenes. For example Nashville has seen a sharp decline in independent music venues since live nation started operating there. Allowing them to operate a venue in Portland would suck local dollars out of our community to funnel them into live nation. Live nation has also shown to impede the development of local musicians and bands as they either do not allow local acts to perform at their venue or require geographic embargo's to prevent the local acts from performing elsewhere in the Portland area. This is really just all around bad for Portland, there has to be an alternative way to build a midrange music venue that doesn't involve an aggressive monopoly.	No	09/14/24 6:41 PM
21	812	Kaitlin Carpenter	I support the appeal. I disagree with the decision to approve a new concert venue in the Central Eastside. LiveNation has no place in Portland and we should not allow it to stifle what makes our music industry great!	No	09/14/24 6:42 PM
22	812	Ryan Anderson	I support the appeal. Don't let Live Nation ruin Portlands music scene.	No	09/14/24 6:56 PM
23	812	Michael Lipson	Portland does not need to be giving its public land to live nation and ticketmaster. The state of Oregon is suing live nation currently. Portland is a city that values its local community and we cant sell ourselves out to the corporations that are going to bleed us dry. I do not support the building of a livenation owned venue here in the city of Portland. It will be a death sentence for the music scene that is so critical in this city.	No	09/14/24 11:02 PM
24	812	E H	I support the appeal, meaning I disagree with the decision to approve a new Live Nation concert venue in the Central Eastside. As someone who attends dozens of concerts a year in the Portland metro area—regularly spending thousands of dollars per year on live music experiences—I am strongly against adding another Live Nation venue to our lively music scene. Tickets I purchase for shows at Live Nation venues are by far the most expensive in terms of ticket prices and fees. We are lucky to get high caliber acts at small/mid size venues such as Crystal Ballroom and Roseland Theatre. Comparing crowd photos of venues in other cities to my experiences at local Portland venues, I feel very thankful for the more intimate experiences we are able to have with great artists. In addition to convincing the city to avoid partnering with Live Nation on a new live entertainment venue, I am also against the proposed location in the Central Eastside. Traffic in the area is already difficult to navigate with the trains, and parking is sparse. Live Nation charges over $25 for parking, another fee on top of an already expensive night out. Please don't work with this monopoly. Portlanders can't cope with the additional strain on our wallets when we want to enjoy a night out at a show.	No	09/15/24 9:54 AM
25	812	Jakob Foley	Portland is one of few major cities left in the United States with many small music venues still existing. the predatory practices of companies such as Live Nation or Ticketmaster seek to monopolize the live music industry and swallow up all of the smaller businesses along the way. this is destructive for not just businesses but also the musicians who are able to perform and for people who are able to attend events. providing city support to these big corporations does not foster community within our city whatsoever, it only breaks it down and replaces it with infrastructure that benefits the wealthy and drives our community out of town. that is against what art is for. cherish our local music scene and direct funding towards community organizations such as Friends of Noise.	No	09/15/24 12:32 PM
26	812	Rusty Tedrow	I strongly disagree with this idea. I've been in the music industry nationally for 30 years, and I know that LiveNation is to a vibrant nightclub/venue scene as Walmart is to small independent retailers. Please don't make this mistake.	No	09/15/24 4:13 PM

	Agenda Item	Name or Organization	Comments	Attachment	Created
27	812	Kacie Bell	I don't agree with Live Nation taking monopoly in Portland venues, over charging tickets, and monopolizing venues that weed out our long time music scene businesses.	No	09/15/24 10:32 PM
28	812	Kirk Larsen	Live Nation/Ticketmaster has made a business model out of destroying small, independent venues like like the ones that make Portland one of the best music cities in the country. As someone who works in the music industry, I can personally attest that Live Nation/Ticketmaster forces artists into deceptive, predatory contracts to grow their monopoly. This is clearly evidenced in the lawsuit brought against them by the U.S. Department of Justice and 30 states Attorneys General. I've seen the damage Live Nation has done in other cities, which is why I'm urging the Portland City Council to reject Live Nation's proposal to build a new venue here. Please don't let our amazing music scene be ruined by a company that only cares about making money and not about our great city and our amazing music scene.	No	09/16/24 10:34 AM
29	812	Ben Toledo	I love the independent music community here in Portland, it's why I moved here in 2008. The dangers that Live Nation poses to this fragile, independent local music ecosystem and the small businesses that power it are real and need to be taken seriously. Monopolies of any kind are dangerous, and we urge the Portland City Council to resoundingly reject Live Nation's venue proposal. Live Nation's predatory, anticompetitive practices pose a serious risk to the health of our venue and the Portland music scene at large.	No	09/16/24 11:34 AM
30	812	Jason Caney-Peterson	Why would we want to hurt our local music scene like this?!?!? It is already struggling!!!!	No	09/16/24 11:39 AM

	Agenda Item	Name or Organization	Comments	Attachment	Created
31	812	Samantha Gladu	Please Stand Up for Local, Independent Music - Support Appeal - Oppose Live Nation Dear Mayor and Portland City Council, My name is Samantha Gladu, and I'm a resident and homeowner in the Buckman neighborhood, active in civic life, and a touring musician and recording artist who has developed my practice in our beautiful city. I am writing to support the appeal, which means I disagree with the decision to approve a new concert venue in the Central Eastside. I love the Central Eastside/Buckman, and I want it to thrive. However, this proposal is dangerous and imposes severe risks to Portlanders safety and quality of life. I navigate the train tracks in the Central Eastside Industrial District on a regular basis, and I even held my elopement near the train tracks in 2014. I've learned in depth about the rail right aways in the area from my work in the Oregon State Legislature, coming to understand why trains idle there, polluting the air throughout that entire corridor, and how few avenues we have to address it. Live Nation/Ticketmaster's proposed venue is a logistical and safety nightmare next to an active rail line, with minimal parking and frequent delays. I have zero confidence in Live Nation's ability to address these significant issues and urge the Portland City Council to reject their proposal. Significantly increasing traffic on already congested roads along a busy train route and overwhelming an area with very little capacity for parking cannot be ignored or half-heartedly addressed with conditional approval. No one looking at these issues objectively can possibly vote to approve this project. This is a slap in the face to Vision Zero, and any traffic deaths associated with concert goers trying to circumvent the train will be attributed to you if you fail to stop this dangerous project from moving forward. Furthermore, Live Nation/Ticketmaster forces artists into deceptive, predatory contracts to grow their monopoly. I've seen the damage Live Nation has done in other cities, which is why I'm urging you to tell the Portland City Council to reject Live Nation's proposal to build a new venue here. Our local independent music scene is a vital part of Portland's unique cultural fabric, and this proposal potentially threatens its very existence. According to the Department of Justice, Live Nation has harmed local music industries nationwide. The recent Department of Justice lawsuit, supported by 30 state attorneys general, exposes how Live Nation's monopolistic practices prioritize corporate interests over community values. Live Nation inflates ticket prices and stifles opportunities for local artists and venues through exclusive contracts and retaliatory tactics. Based on this, I believe that allowing Live Nation to establish a venue in our city would be a disaster, undermining the independent music scene we cherish while also creating public safety and logistical nightmares. The Oregon Legislature and Representative Rob Nosse have made significant investments in our arts and culture industry, even standing up an Arts and Culture Caucus. The City of Portland has dedicated significant funds to the arts and is refining its processes for distributing funds. Don't betray that by subsidizing Live Nation/Ticketmaster. This move is a blatant betrayal of Portland residents' best interests. Why is the City of Portland proposing to subsidize what the US Dept. of Justice has accused of being one of the most profitable, predatory corporations in the music industry to destroy our local, independent music scene? I urge you to oppose this deal - both the land use, and all City of Portland support for the deal! Sincerely, Samantha Gladu	Yes	09/16/24 11:41 AM
32	812	Central Eastside Industrial Council and Vibrant Table and Events	My name is Art Fortuna and I am the owner of Vibrant Table Catering. And am currently the President of Central East Side Industrial Council. I am testifying today in opposition to the Appeal of the decision to approve the Conditions of the conditional use for the new concert venue in the Central Eastside. We as a council and I personally as a building and business owner in the Central Eastside believe that the development of this new venue will greatly improve our district. The fact is that the proposed site has been a vacant undeveloped property for many years and has been the site of many unattractive uses both sanctioned and not sanctioned the plan to build a state of the art concert venue would be a huge win for the city and our district. In the current struggle that Portland is having with the economic come back the fact that we can attract a national company the size and resource rich such as Live Nation to invest in our community should be seen as a major step in getting the city moving in a positive direction. Thank you for your time and attention to my thoughts and concerns.	No	09/16/24 11:58 AM

Monday, September 16, 2024
Subject: Please Stand Up for Local, Independent Music - Support Appeal - Oppose Live Nation

Dear Mayor and Portland City Council,

My name is Samantha Gladu, and I'm a resident and homeowner in the Buckman neighborhood, active in civic life, and a touring musician and recording artist who has developed my practice in our beautiful city. I am writing to support the appeal, which means I disagree with the decision to approve a new concert venue in the Central Eastside.

I love the Central Eastside/Buckman, and I want it to thrive. However, this proposal is **dangerous** and imposes severe risks to Portlanders safety and quality of life. I navigate the train tracks in the Central Eastside Industrial District on a regular basis, and I even held my elopement near the train tracks in 2014. I've learned in depth about the rail right aways in the area from my work in the Oregon State Legislature, coming to understand why trains idle there, polluting the air throughout that entire corridor, and how few avenues we have to address it.

Live Nation/Ticketmaster's proposed venue is a logistical and safety nightmare next to an active rail line, with minimal parking and frequent delays. I have zero confidence in Live Nation's ability to address these significant issues and urge the Portland City Council to reject their proposal. Significantly increasing traffic on already congested roads along a busy train route and overwhelming an area with very little capacity for parking cannot be ignored or half-heartedly addressed with conditional approval. No one looking at these issues objectively can possibly vote to approve this project. This is a slap in the face to Vision Zero, and any traffic deaths associated with concert goers trying to circumvent the train will be attributed to you if you fail to stop this dangerous project from moving forward.

Furthermore, Live Nation/Ticketmaster forces artists into deceptive, predatory contracts to grow their monopoly. I've seen the damage Live Nation has done in other cities, which is why I'm urging you to tell the Portland City Council to reject Live Nation's proposal to build a new venue here. Our local independent music scene is a vital part of Portland's unique cultural fabric, and this proposal potentially threatens its very existence. According to the Department of Justice, Live Nation has harmed local music industries nationwide. The recent Department of Justice lawsuit, supported by 30 state attorneys general, exposes how Live Nation's monopolistic practices prioritize corporate interests over community values. Live Nation inflates ticket prices and stifles opportunities for local artists and venues through exclusive contracts and retaliatory tactics. Based on this, I believe that allowing Live Nation to establish a venue in our city would be a disaster, undermining the independent music scene we cherish while also creating public safety and logistical nightmares.

The Oregon Legislature and Representative Rob Nosse have made significant investments in our arts and culture industry, even standing up an Arts and Culture Caucus. The City of Portland has dedicated significant funds to the arts and is refining its processes for distributing funds. Don't betray that by subsidizing Live Nation/Ticketmaster.

This move is a blatant betrayal of Portland residents' best interests. Why is the City of Portland proposing to subsidize what the US Dept. of Justice has accused of being one of the most profitable, predatory corporations in the music industry to destroy our local, independent music scene? I urge you to oppose this deal - both the land use, and all City of Portland support for the deal!

Sincerely,
Samantha Gladu

	Agenda Item	Name or Organization	Comments	Attachment	Created
33	812	Edmond Zeringue	DO not let LiveNation open a music venue in POrtland, OR. I cant even imagine the 'Ticketmaster' of live music venues taking shows from worthy small locally owned venues and event spaces. JUST SAY NO TO LIVENATION . This goes against everything that we as Portlanders stand for, and I would guess that if this did happen, the public wouldn't be very 'welcoming'	No	09/16/24 12:00 PM
34	812	Clayton Standley	I am opposed to the selling of public land to Live Nation for a new venue. I am a Portland native, local musician, and fan of Portland's thriving independent music scene. The presence of a Live Nation venue in Portland would threaten Portland's local music scene. Live Nation has a track record of engaging in monopolizing practices such as purchasing competing local venues just to shut them down. Live Nation is also a corporate behemoth that outrageously gouges consumers and has dramatically inflated the cost of live entertainment. It is a multinational corporation with over 300 registered subsidiaries all over the world, a company that cares only about massive profits. In its quest to dominate all sectors of the music industry, it manipulates and controls artists and consumers alike. They are corporate and cookie cutter, the exact opposite of everything that Portland's culture represents. The people of Portland, the music fans, the local musicians that make our home so special, we do not want to do business with this company. I support development, jobs creation, and the construction of new music venues. But we have done that without Live Nation, and we can do it again.	No	09/16/24 12:14 PM
35	812	Michael Hendricks	I and 5 other musician friends moved to Portland from Los Angeles 10 years ago, specifically to escape the saturated and abusive systems that livenation and ticketmaster had put into place in that area. Over the dozen or so years that livenation and ticketmaster spread their influence in that zone, shows became unplayable due to costs to both the venues and musicians, with no profit margin left for either, and hardly any spaces left to perform, as the barrier for entry was raised astronomically high when contrasted with all the extra fees and exclusivity contingencies ticketmaster and livenation placed upon the industry. If they build a venue here, kiss this city's artistic integrity goodbye. Your musicians and venues will suffer terribly and eventually shutter their doors. Portland will no longer be the music mecca it has become. Notice that LA has not been producing good new music on any consistent basis in the last 20 years - it was once a lush musical tapestry, and it's creative sheen and the opportunity for local musicians out there has died in completion. It is in no way a coincidence that this death of culture lines up perfectly with the raise of ticketmaster and livenation's influence in that town. Please, for the love of all who feel or enjoy the product of that creative spark that makes this place special, DO NOT allow livenation and ticketmaster to swallow this town whole, because they will. They will make every dollar they can along the way and our creative and venues will all suffer greatly for it. We already have fantastic venues all over Portland. There is no need for a new mega-venue, we have the MODA center and Edgefield and all sorts of other venues of any needed size here. Do not give our artists and venue owners away to the sharks and wolves, we are struggling enough as it is, most of us working on zero profits or close to it. This would rapidly spike our opportunity to just break even on these creative investments down into the ground, through processing fees, hidden charges and artist and venue restrictions meant only to squeeze every last dime out of people who love art.	No	09/16/24 12:57 PM
36	812	Peter Mohling	This is just another example of Portland City leadership selling the city from under us. They have done it with housing and now they want to do it with our music scene. Right now the "service fees" for a livenation/ticketmaster show cost as much as the ticket itself. This in no way promotes local talent and the revenue generated goes to a large monopolistic corporation instead of being re invested into Portland.	No	09/16/24 1:08 PM

	Agenda Item	Name or Organization	Comments	Attachment	Created
37	812	Portland Jazz Composers Ensemble	I am against the conditional use permit being awarded to Live Nation. In an era where income inequality continues to expand, awarding this permit to a corporate entity that has no interest in the local music eco system will contribute the widening gap of haves and have-nots. I believe that the Live Nation venue will negatively impact the local music eco system in the following ways: Competition for Artists: Larger venues can often attract popular national and international acts, leaving less room for local artists to perform. This can reduce opportunities for local musicians to build a following. Venue Costs: Larger venues often have higher operating costs, which can lead to higher ticket prices or fees. This can make it more difficult for local artists to afford to play at these venues, limiting their ability to reach a wider audience. At the PJCE, we already have a hard time securing affordable venues to perform. I believe this will make our problem worse. Booking Power: Corporate-owned venues often have significant booking power, which can make it more difficult for smaller, independent promoters to secure shows for local artists. This can lead to a concentration of power in the hands of a few major players, limiting opportunities for local musicians. Cultural Homogenization: Larger venues may prioritize booking mainstream acts that appeal to a wider audience, which can lead to a homogenization of the music scene. This can reduce diversity and limit opportunities for local artists with unique or niche sounds. As an artistic director that focuses on the unique sound of Portland jazz, this will severely dilute the alure of our product. Loss of Community: Smaller, local venues often have a more intimate atmosphere and a sense of community. The presence of a large, corporate-owned venue can dilute this sense of community and make it more difficult for local musicians and fans to connect. At the PJCE, we are only interested in reflecting the values of our community, and we think this will reduce our ability to do so. The Live Nation concert venue would promote the trend that many of us in the local music community have been seeing creeping into other parts of our community. Taking everything that is cool about Portland, watering it down, and making it less cool just to increase corporate profits.	No	09/16/24 1:22 PM
38	812	Julz Clementine	I do not support a Live Nation music venue in the central eastside of Portland.	No	09/16/24 2:30 PM
39	812	Nicole Lu	I am writing to express my concerns regarding the potential opening of a 6,000-person music venue by Live Nation in our city. As we all know, Portland has long been a hub for independent music and creative culture. Unfortunately, Live Nation’s monopoly over the live music industry has harmed local artists, venues, and the very communities that have shaped Portland's vibrant scene. Their dominance often pushes out smaller, independent venues, leading to higher ticket prices and less opportunity for local musicians to thrive. The introduction of another large-scale, corporate venue threatens to stifle the grassroots music scene that has made Portland unique. We must prioritize the preservation of our independent culture, ensuring that artists and small businesses have a fair chance to succeed without being overshadowed by corporate interests. I urge you to consider these impacts and protect the integrity of Portland’s music community. Thank you for your time and attention to this important issue.	No	09/16/24 2:34 PM
40	812	Oregon Brand Management	As the owner of Oregon Brand Management, a wine distribution company on SE 3rd Avenue and Alder in Portland, I am deeply concerned that I am just now hearing about the plans to build a 3500 capacity venue just down the street. I worry that this will negatively impact my ability to conduct business. We distribute wine all over Portland and Oregon and we need to be able to easily navigate already congested streets and parking on this side of the city. No one from Live Nation, Beam or Colas Construction has reached out to me as a business owner to tell me about these plans and I hear from and a friend and former employee at MusicPortland that they are saying there is local buy-in from the businesses on this project. How can that be if I didn't even know about it? If my drivers can't easily get in and out of my warehouse, or there is not enough parking, or concert-goers block our driveway (which is something that already happens when there are events in the area), my business will suffer. I support this land use appeal and am urging you not to approve Live Nation's land use permit for the sake of my business and other distributors in the area. Thank you. Jim Closson	No	09/16/24 2:51 PM

	Agenda Item	Name or Organization	Comments	Attachment	Created
41	812	Philip Graham	Honorable Councilmembers, I am writing as the owner of a small manufacturing company building microphones in the inner Northeast for 13 years. I oppose the approval of a the conditional land-use permit for the LiveNation venue project, and want the Portland City Council to direct Prosper Portland to reconsider and re-examine the development agreement under which this development is proposed. The Council should stand up for the local venues, local artists, local labels, local bookers, local audio engineers, and local gear manufacturers who will all be negatively affected by the incursion into our city of one of the most rapacious and unapologetically monopolistic enterprises in the country. To quote local business advocacy group Better Portland: "Entrepreneurship and small business are a crucial component of a healthy city: great jobs, tax revenue, livability, tourism, and attracting and retaining talent." I couldn't agree more, and Portland's independent music ecosystem is a shining example of this local vitality. In 2022 Business Oregon and the Oregon Legislature recognized the commercial music industry as an important emerging industry sector. Business Oregon's analysis found that the commercial music industry employs over 20,000 Oregonians and accounts for over $3.8 billion in economic output every year, predominantly in Portland. And most importantly this current economic dynamo is almost entirely homegrown and locally owned. Portland is the last US market of any size to NOT have a LiveNation-owned venue, and that is not coincidental to the relative vitality of our independent music businesses and musicians, even though every economic wind in the current corporate-dominated economy is blowing against them. LiveNation, in contrast, is an enormous multinational which manages everything at a corporate level, keeps an iron grip on all concessions and sponsorships, actively minimizes local acts in their venues, sucks all profit to their investors, and has a documented internal playbook on taking over all the venues in a market once they have a toehold. They aggressively leverage their monopolistic control of ticketing, artist management, and an enormous network of their own venues to force other venues first to use their own ticketing services and then to either sell out to them or close. According to the US Department of Justice, Live Nation has harmed local music industries nationwide. The recent Department of Justice lawsuit, supported by 40 state attorneys general, including Oregon's, exposes how Live Nation’s monopolistic practices prioritize corporate interests over community values. Live Nation inflates ticket prices and stifles opportunities for local artists and venues through exclusive contracts and retaliatory tactics. It is crazy for Portland to invite this entity - being sued by the DOJ for harming local economies! - into our city, and for any public entity to have any part in assisting them. Any economic activity they may generate is overwhelmed by the harm they would do, especially since all profit from their activity will be sucked out of the region to their large scale international investors (including the Saudi wealth fund). Make no mistake, they are requesting public assistance, from land-use waivers to an absurdly below-market-value 99-year lease on three city blocks (waterfront, adjacent to the upcoming OMSI development) for $130k a year. I trust that City Council will hear the voices of our hundreds of music small businesses and reject the provisional land use agreement that would allow this travesty of the public interest to proceed, and to request Prosper Portland to re-examine the development agreement under which it is happening. Sincerely, Philip Graham Ear Trumpet Labs	No	09/16/24 3:11 PM
42	812	Mark funkhouser	I ardently oppose Live Nations unethical business practices, monopoly on the concert ticket industry, price gouging, and especially any attempt on their part to own or build a venue in our city.	No	09/16/24 3:40 PM
43	812	N/a	I do not support any venues owned and operated by Live Nation in Portland. Independent and small businesses are what makes our city so special, and Live Nation is a monopoly.	No	09/16/24 3:58 PM

	Agenda Item	Name or Organization	Comments	Attachment	Created
44	812	Steffen Wade	Live Nation is bad for Portlands local music scene. I specifically asked about the dates held for local acts and whether the radius clause still applied which it does. This would mean a local band would not be able to play Portland or surrounding areas for a period of time. This is detrimental to Banda that cannot afford to not play their local areas and/or cannot afford to drive outside of the radius or had no intention too. This effectively makes the local support a crafty way to shut local artists out of the local community and out of local venues not run by live Nation. This alone is only indicative of other predatory practice and turn of face characteristics of how they undermine local venues and prevent them from booking major acts by enforcing this clause. They are actively addressing major accusations of predatory practices as we talk about welcoming them into our music scene. Do not allow live Nation to take space from other local entities like Marquis as one example who have served our local community. I am in a band that cannot afford to be under such a radius restriction, these dates would not serve the interest of helping local acts in the way that it is conveyed. Please do not allow Live Nation to take away the value that Portlands music scene has worked so hard to establish, let us keep the scene local, let us keep the scene we've worked on. Help us make it better, but this is not the only way or a way forward that I support at all speaking as working artist in the local Portland music scene.	No	09/16/24 5:41 PM
45	812	Sarah	This company does not have Portland's people in their interest, it's just profit. The additional fees alone would leave any venue empty. We have enough venues, let's prioritize people over profit. Bring in a natural history museum, or a company from PDX, we don't need or want this.	No	09/16/24 5:42 PM
46	812	Justyne Triest	Hello- I've been attending concerts and events in Portland for more than 30 years and I consider our arts and music scene one of Portland's best assets. The proposed Live Nation venue is a threat to that and I'm opposed. Ticket prices are already so expensive and fees— especially ones that Live Nation and similar charge- are exorbitant and outrageous. The fees alone have stopped me from attending shows, including one this week. Live Nation hurts concert goers, musicians, local promoters, artists, and others who make their living in this industry. This would hurt Portland and I disagree with this new central Eastside venue being Live Nation or another similar huge company. Keep it local! Thank you, Justyne	No	09/16/24 5:48 PM
47	812	Helen-Thea Marcus	I, Helen-Thea Marcus support the appeal, which means I disagree with the decision to approve a new concert venue in the Central Eastside." Keep Portland's music scene local. Don't allow big corporations to come in and completely control the music people have access to.	No	09/16/24 7:30 PM
48	812	Meg Bender-Stephanski	Hello, I am writing today in support of the appeal which means I disagree with the decision to approve a new concert venue in the Central Eastside. I'd love to see our local government support small businesses not megacorporations in revitalizing Portland. Supporting corporations that make their living on overcharging folks and events not being accessible makes no sense to me. Please show your constituents that you are for the people of Portland by not allowing Live Nation to take over our town.	No	09/16/24 8:58 PM
49	812	MusicPortland	The following represents my personal views on the Live Nation deal. If at all possible, I advocate for a moratorium on any Live Nation development in Portland until the DOJ lawsuit against them is settled.	Yes	09/16/24 10:38 PM
50	812	John Serious	Ticketmaster should not be given any sort of deal or permit exceptions. They gouge prices and art practically a monopoly	No	09/17/24 2:10 AM
51	812	Sinead Cowan-Kuist	I support the appeal, which means I disagree with the decision to approve a new concert venue in the Central Eastside. I am submitting a written testimony to ask that we do not let Live Nation build a venue that is certain to fundamentally damage the music culture in Portland. Let's please learn from other cities' mistakes and the pattern of impact Live Nation has had on other cities and independent music venues. Allowing this will be beyond detrimental. Portland is special and it would be devastating to let a corporation ruin our community.	No	09/17/24 8:16 AM
52	812	Triska Lee	I do not support a live nation venue being established in Portland, OR. Livenation and Ticketmaster already have a monopoly on ticket sales and music venues across the US and Portland must resist these companies tactics of buying venues and pushing out local owners. I encourage city council to reject Live nation and Ticketmaster venues in Portland to encourage our local economy and music. I live in the central eastside and would rather see local businesses supported and not have our public assets allotted to non-local companies that are being sued for their practices.	No	09/17/24 8:47 AM

16 September 2024
Jesse Valencia - Testimony to City Council
LU 23-111784 CU AD

My name is Jesse Valencia, and I am an Indigenous (Yoeme/Yaqui) musician, actor, author, and filmmaker. I moved to Portland a year ago from Northeastern Arizona, where I led my band, Gorky, for twenty years until my creative partner and best friend, Benjamin Holladay, passed away from a rare genetic lung disorder. I came to Portland partly to be closer to my family, who have lived in Oregon for some time, and also because I was drawn to this city's vibrant independent music scene.

When I first arrived, I believed it would be relatively easy to find a new lineup for my band, secure some gigs and practice space, and start making a living doing what I loved, as I had done in Arizona. However, that proved to be more challenging than I anticipated. As I began to look beyond my own struggles, I noticed that our city faces much deeper issues, and I asked myself, "How can I focus only on my own needs when there are so many others in need of real help?"

Two months after I arrived, my friend Zia McCabe from the Dandy Warhols invited me to a Music Policy Town Hall at Lollipop Shoppe. There, I immediately signed up to join MusicPortland and offered to help in any way I could. Their vision of rebuilding the city through a shared focus on music, entertainment, and the arts resonated deeply with what I had been witnessing on the streets. I saw clearly that their mission was to champion small businesses, independent artists, and entrepreneurs, and to advocate for transparency in a free and fair market. I knew I wanted to be part of this effort.

Through MusicPortland, I learned that Portland's independent music economy generates over $3 billion a year in economic activity—comparable to tourism and manufacturing, and more than the salmon, lumber, and cannabis industries combined. One in four Portland neighborhoods has a local record store, and over 20,000 people make a living from music, not to mention the instrument manufacturers, music schools, and countless musicians throughout the city.

When it became clear that Live Nation was planning to build a venue here at the same time they were being investigated by the Department of Justice and facing a lawsuit involving 40 states for their alleged predatory and monopolistic business practices, I realized that our chance to rebuild Portland with what makes it truly special was being threatened. Live Nation seems to view our vibrant, independent music economy as just another market venture, rather than what it truly is—an organic, self-sustaining network of creatives and small business owners. This network would be at risk from the kinds of business practices Live Nation has been accused of.

The recent news of the sale of the public land in question to Beam Development by Prosper Portland, without sufficient public input and transparency, raises serious concerns. Given the ongoing DOJ investigation, this deal feels more like a move to bolster their position than a

genuinely positive development for Portland. Just last week, there was talk of leasing the land; now, it's being sold outright, just days before this hearing? This raises significant questions.

I trust that this council has the wisdom and discernment to recognize that Live Nation and their partners are already demonstrating the same behaviors they are being scrutinized for in the DOJ lawsuit, right here in Portland. If possible, I urge you to consider canceling this deal and imposing a moratorium on any further developments by Live Nation until the DOJ lawsuit is resolved. I believe this is the best option for Portland, to protect our unique and vital independent music community.

Thank you for your time and consideration.

Sincerely,
Jesse Valencia

	Agenda Item	Name or Organization	Comments	Attachment	Created
53	812	Shawn Wiley	Please accept my written testimony in support of the appeal. Portland's independently owned music venues amply serve the area's concert-going community. We should not allow Live Nation, a corporation with documented predatory and monopolistic practices, to have a presence in the city's concert scene.	Yes	09/17/24 10:13 AM
54	812	Jacob Paré	I support the appeal. Keep live nation out of portland! This is a threat to our community and will push out local venues in the way that they have in other cities. Their are lawsuits against live nation and ticket master and for good reason. Keep them out of portland!	No	09/17/24 10:39 AM
55	812	Mario Hernandez	I support the appeal.	No	09/17/24 10:45 AM
56	812	Dylan	I urge council to deny LiveNation/Ticketmaster a permit for a venue in Portland generally and in this location specifically. This company is well known benefiting from scalping of tickets on their own platforms rather than preventing it, exclusivity clauses for venues and bands, as well as many other borderline negligent and apparently anti-competitive behaviors and are mired in anti-trust litigation. While it is clear that Portland could benefit from a venue of this size, I believe the issues with street access due to loading docks and street-level trains around this area make this a poor option for this type of use. Additionally the benefits to the local community and fans in Portland of this sort of venue in theory are outweighed by the damage to the local music scene that LiveNation/Ticketmaster's ownership and operation of their own venue in town poses - They already operate in Portland and compete and contract with local spaces and ticket sellers, but allowing this company to consolidate their vertical market with a major, city land based, venue poses a threat to the work the city has been doing to help strengthen and diversify Portland's live music community. I urge council to deny this permit to LiveNation/Ticketmaster - not at this site and not this company. It will do more harm than good.	No	09/17/24 11:01 AM
57	812	Camden Boyd	I support the appeal	No	09/17/24 11:16 AM
58	812	Stacey Flack	I support the appeal. I do not support LiveNation in Portland!	No	09/17/24 11:49 AM
59	812	DTL, Inc. dba Double Tee Concerts		Yes	09/17/24 12:50 PM
60	812	Portland Jobs with Justice		Yes	09/17/24 1:01 PM

To: Portland City Council

From: Shawn Wiley
Portland, OR

Re: Written Testimony, Agenda Item 812, proposed Live Nation music venue

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As a music fan and avid concert-goer, I have attended hundreds of shows in the Portland area alone, and many more across the country. The Portland concert scene, including both national and local acts, is one of the most vibrant in the U.S. and a jewel in the city's crown. Although not without its problems (larger acts bypassing Portland for Seattle, or skipping the PNW altogether), going to a show in one of the many independently owned venues in the area, be it Roseland, Wonder Ballroom, Polaris, Edgefield, or the Moda Center, is one of the best parts of living in a great city.

I write to you today to urge you to grant the appeal requested by Music Portland and deny Live Nation's bid to build a venue in Central Eastside. The issue is not so much what is being proposed. Portland likely could use a 3,500-person capacity music venue to attract acts that draw more than the 1,500-ish capacity of the Crystal Ball Room and Roseland but would struggle to fill Edgefield.

The issue is who is proposing to build and own it. Live Nation/Ticketmaster's predatory practices are well documented, and I need not add to the voices documenting those practices here. But beyond the threat to the many great independent Portland music venues, each with its own personality and feel, Live Nation is simply an awful company from a music fan perspective. Extra charges, overpriced and mediocre food and beverage options, oversold events, and surly and aggressive employees are just a few of the unpleasant things one negotiates at a Live Nation venue. The company has even made attending a concert at the breathtaking Gorge Amphitheater a nightmare, which I personally did not believe was possible.

Sadly, we live in a world dominated by corporations, and we all bear the brunt of such delights as “surge pricing,” the lack of a competitive marketplace (and prices), union-busting, and other predatory corporate practices that make modern life a slog in so many respects. But that does not mean that we should simply cave in when a corporate behemoth comes knocking. Please take this opportunity to keep the focus of the Portland concert scene on small, independent venues that reflect the personality and ethos of the city. Even if the 3,500-capacity venue is not built, we will make do with the fine venues we already have. Thank you for your time and consideration.

My name is David Leiken. I have retired after more than 50 years in the Concert and Ticketing Industry. My companies owned the Roseland Theater, Fred Meyer Fastixx in the 1990's, and shows at Portland Meadows, the River Queen, and the Cuthbert Amphitheater in Eugene for a combined 30 years and we were a major arena producer well into the 90's.

I have testified in both the cases filed by the U.S. Justice Department and with the Attorney General's Office of the State of Oregon.

About 3 ½ years ago I asked for a meeting with Prosper Portland about the idea of a music venue at the East end of Couch Street at the soon-to-be vacated University of Oregon properties. The plan was to redo the two properties into a 2,500 – 3,000 capacity music venue. There were dedicated development funds available designated specifically for OLD TOWN. $57,000.000.00. We had an initial meeting where I emphasized the positive impact it would have for OLD TOWN, and the fact it was located right next to Light Rail, and that the rear of the building was perfect for ingress and egress for the production of the shows. I also mentioned that the two buildings had very valuable modernized infrastructure and significant seismic upgrades, some of which could possibly be used for the project. I also stressed that we would not need anything more than $25 – 30,000,000.00 of low interest loans and that the University of Oregon Foundation was considering a partnership in the deal. I also stressed that we would put up a $5,000,000.00 to 10,000,000.00 of our own capital. I pushed for a 2nd meeting and the ensuing result was that it never happened. I contacted the Mayor's office several times and never received a call back. Not long after that time I was told about the venue option that is before you today. This led me to believe that Prosper Portland had already put the venue before you on track.

What was even more interesting to me was that Colas Construction was involved in the project with Beam Development. Colas has strung OLD TOWN and Prosper along for quite a long time on an RFP that they had won in OLD TOWN, then backed out and failed to move forward on the project. To subsequently reward Colas with this new project after that boondoggle seemed very disingenuous to me. The other thing that made very little sense was how and when had that other project morphed into a venue project, and who allowed that to happen.

The project that I was proposing would have made great use of the University of Oregon property and would have had a huge positive impact on commerce in OLD TOWN. As owner of the Roseland Theater and a longtime operator of an OLD TOWN business, and a many years member of the OLD TOWN Board, I was pretty excited. And as a University of Oregon alum, made the idea even more appealing, but now here we are looking at a project that puts our City in a very questionable partnership with an entity that is being sued by the U. S. Justice Department (the American people) and rightfully so. There are now 40 states suing Live Nation/Ticketmaster for unfair, unethical, illegal, and predatory trade practices, including the State of Oregon (the people of the State of Oregon.) It is time to stop this illegitimate use of public money, land, and time.

To enter into this long-term deal with our public resources at a time when such a dark cloud exists over Live Nation/Ticketmaster is frankly negligent. This lawsuit imperils any agreements that may be signed and negotiated. These companies may be broken up or impacted in ways that could jeopardize financing agreements with banks or other financial institutions. How will Beam and Colas guarantee the necessary payments if the financing is impacted by the many lawsuits? Under these circumstances moving forward with this project is imprudent, unconscionable, and hard to believe that the legal staffs of our City and Prosper have taken these actions into account. The decision to move forward with this project when it is clear that everyone has been made aware of the potential negative issues of doing business with Live Nation/Ticketmaster is simply wrong, absurd, naïve, and reeks of a lack of sensible oversight. To reward their illegal, unethical, and predatory behavior with a path to a new venue in Portland that will result in a virtual takeover of our concert market should be stopped now. It will negatively impact numerous local businesses as well as our Performing Arts Centers. What is impossible to believe is how it got this far. Who is looking out for the people of Portland, our taxpayers, and our consumers? It appears that as of now, NO ONE, and for sure not Prosper Portland.

For the City of Portland and Prosper Portland to sell public land at a discount to Beam/Colas in their endeavor to subvert the will of the U.S. Justice Department and the Attorney General of our state, as well as the people of America and Oregon when Live Nation/Ticketmaster is being sued for unfair, illegal, unethical and predatory practices is outlandish.

Dear Portland City Council Members,

I am writing to express my concerns with Live Nation's proposal to open a music venue on Water Avenue near the Hawthorne Bridge. Our local independent music scene is a vital part of Portland's unique cultural fabric, and this proposal potentially threatens its very existence.

As you consider the impacts to infrastructure, it's important to highlight the broader concerns that we have as Portlanders. The community has zero confidence this venue will serve the public good without imposing significant risks. Significantly increasing traffic on already congested roads along a busy train route and overwhelming an area with very little capacity for parking cannot be ignored or half-heartedly addressed with conditional approval. No one looking at these issues objectively can possibly vote to approve this project.

According to the Department of Justice, Live Nation has harmed local music industries nationwide. The recent Department of Justice lawsuit, supported by 30 state attorneys general, exposes how Live Nation's monopolistic practices prioritize corporate interests over community values. Live Nation inflates ticket prices and stifles opportunities for local artists and venues through exclusive contracts and retaliatory tactics. Based on this, we believe that allowing Live Nation to establish a venue in our city would be a disaster, undermining the independent music scene we cherish while also creating public safety and logistical nightmares.

This move is a blatant betrayal of Portland residents' best interests. Why is the City of Portland proposing to subsidize what the US Dept. of Justice has accused of being one of the most profitable, predatory corporations in the music industry to destroy our local, independent music scene?

I urge you to oppose this deal - both the land use, and all City of Portland support for the deal!

Sincerely,

Tyler Fellini
Interim Executive Director | Portland Jobs with Justice

	Agenda Item	Name or Organization	Comments	Attachment	Created
61	812	Ben Seigel	Dear Mr. Mayor, City Council Members: As an aspiring musician with a day job, I could not attend the Sept 19 hearing about this matter, so I am submitting written testimony instead. At the hearing, you will hear from numerous musicians, small business owners, and other PDX residents about the negative impact of opening a Live Nation venue here. You'll learn they are being sued by the Federal Gov't and dozens of states for anti-competitive behavior; how they follow a playbook in city after city to disrupt and seriously injure vibrant local music scenes; how one great appeal of Portland to both residents and visitors is our independence, our small businesses, a music and arts scene that doesn't just serve up the same old thing you can find in any other U.S. city. People don't come all the way to Portland to hear Nickelback and eat at McDonald's (though it's fine if they do), they can do that in any other big city. So: why do we need to be here today? Why do we have to raise money, organize people in the music ecosystem, chat up music fans outside venues asking them to lend their voice to this opposition effort? Why, when Live Nation's business practices are thoroughly established. It's not like Music Portland is bringing new and surprising information to light. All of this is known, it has been known for years. Are you paying attention? Why should the city welcome with open arms a company with such reprehensible practices? This isn't an edge case, it's a clear example of ceding power and independence to a company that cares about nothing but profit. I urge you to reject this application, and reconsider how Portland city government can support and strengthen its amazing, homegrown music and arts scene instead.	Yes	09/17/24 1:11 PM
62	812	N/A	I am a musician in Portland and I oppose moving forward with a Live Nation venue in the city. I support the appeal, which means I disagree with the decision to approve a new concert venue in the Central Eastside. Instead of introducing a big corporation into the music infrastructure of the city we should focus on building up our already thriving independent music scene. It would be terrible to see a monopoly on music in Portland, a city where we value independent businesses and accessibility for all to participate in creative endeavors.	No	09/17/24 1:24 PM
63	812	Self	I disagree with the decision to approve a new concert venue in the Central Eastside owned and operated by Live Nation. I am writing to urge city commissioners to reject Live Nation's proposal to build in Portland. Live Nation is a monopoly that kills independent music culture. Live Nation has promoted shows in locally-owned venues successfully for many years. Portland is the LAST major city in the United States where independent music venues, artists, fans, labels, ticket companies, poster makers and a whole beautiful ecosystem exists without a Live Nation/Ticketmaster owned venue. Representatives from other major music cities, including Austin, Nashville, Chicago, Washington DC, and Des Moines, have outlined specific unfair and unethical practices that have devastated their local independent music industries.	No	09/17/24 2:57 PM
64	812	Brett Sparrey	I'm writing in to show my dissapproval for live nation opening a venue in portland. Live Nation is essentially a monopoly that is interested in making as much money as possible at the expense of artists, fans, and the community as whole. allowing this company to come into Portland will only allow the monopoly to grow when it should be trust-busted immediately. This will only harm the music community in portland.	No	09/17/24 4:02 PM
65	812	Emily Nguyen	Live Nation is a leech and a threat to local independent music. They add insane fees to everything and have a monopoly over so many live events, we can’t give them any more power than they already have.	No	09/17/24 4:24 PM

PRESS RELEASE

Justice Department Sues Live Nation-Ticketmaster for Monopolizing Markets Across the Live Concert Industry

Thursday, May 23, 2024

For Immediate Release

Office of Public Affairs

Live Nation-Ticketmaster's Exclusionary Conduct and Dominance Across the Live Concert Ecosystem Harms Fans, Innovation, Artists, and Venues

The Justice Department, along with 30 state and district attorneys general, filed a civil antitrust lawsuit against Live Nation Entertainment Inc. and its wholly-owned subsidiary, Ticketmaster LLC (Live Nation-Ticketmaster) for monopolization and other unlawful conduct that thwarts competition in markets across the live entertainment industry. The lawsuit, which includes a request for structural relief, seeks to restore competition in the live concert industry, provide better choices at lower prices for fans, and open venue doors for working musicians and other performance artists.

The complaint, filed today in the U.S. District Court for the Southern District of New York, alleges that Live Nation-Ticketmaster unlawfully exercises its monopoly power in violation of Section 2 of the Sherman Act. As a result of its conduct, music fans in the United States are deprived of ticketing innovation and forced to use outdated technology while paying more for tickets than fans in other countries. At the same time, Live Nation-Ticketmaster exercises its

power over performers, venues, and independent promoters in ways that harm competition. Live Nation-Ticketmaster also imposes barriers to competition that limit the entry and expansion of its rivals.

“We allege that Live Nation relies on unlawful, anticompetitive conduct to exercise its monopolistic control over the live events industry in the United States at the cost of fans, artists, smaller promoters, and venue operators,” said Attorney General Merrick B. Garland. “The result is that fans pay more in fees, artists have fewer opportunities to play concerts, smaller promoters get squeezed out, and venues have fewer real choices for ticketing services. It is time to break up Live Nation-Ticketmaster.”

“Today’s announcement reflects the latest efforts by the Justice Department to combat corporate misconduct,” said Deputy Attorney General Lisa Monaco. “Our fight against corporate wrongdoing includes an intense focus on anticompetitive conduct — which disadvantages consumers, workers, and businesses of all kinds. Today’s complaint alleges that Live Nation-Ticketmaster have engaged in anticompetitive conduct to cement their dominance of the live concert market and act as the gatekeeper for an entire industry. Today’s action is a step forward in making this era of live music more accessible for the fans, the artists, and the industry that supports them.”

“The Department is committed to competition throughout the economy, including in live music,” said Acting Associate Attorney General Benjamin C. Mizer. “As our complaint alleges, Live Nation-Ticketmaster monopolizes the markets for concerts and other live events at the expense of fans, venues, and artists across the country. The Department is proud to bring this case to restore competition to this industry.”

“The live music industry in America is broken because Live Nation-Ticketmaster has an illegal monopoly,” said Assistant Attorney General Jonathan Kanter of the Justice Department’s Antitrust Division. “Our antitrust lawsuit seeks to break up Live Nation-Ticketmaster’s monopoly and restore competition for the benefit of fans and artists.”

According to the complaint, Live Nation-Ticketmaster has unlawfully maintained monopolies in several concert promotions and primary ticketing markets and engaged in other exclusionary conduct affecting live concert venues, including arenas and amphitheaters. The complaint further alleges that Live Nation-Ticketmaster’s exclusionary practices fortify and protect what it refers to as its “flywheel.” The flywheel is Live Nation-Ticketmaster’s self-reinforcing business model that captures fees and revenue from concert fans and sponsorship, uses that revenue to lock up artists to exclusive promotion deals, and then uses its powerful cache of live content to sign venues into long term exclusive ticketing deals, thereby starting the cycle all over again. Live Nation-Ticketmaster’s anticompetitive conduct creates even more barriers for rivals to compete on the merits. Specifically, Live Nation-Ticketmaster engaged in a variety of tactics to eliminate competition and monopolize markets:

- **Relationship with Oak View Group:** Live Nation-Ticketmaster exploits its longtime relationship with Oak View Group, a potential competitor-turned-partner that has described itself as a "hammer" and "protect[or]" for Live Nation. In recent years, Oak View Group has avoided bidding against Live Nation for artist talent and influenced venues to sign exclusive agreements with Ticketmaster. For example, Live Nation has scolded Oak View Group multiple times for trying to compete. In one instance, Live Nation asked, "who would be so stupid to . . . play into [an artist agent's] arms," and on another occasion, Live Nation stated, "let's make sure we don't let [the artist agency] now start playing us off."
- **Retaliating Against Potential Entrants:** Live Nation-Ticketmaster successfully threatened financial retaliation against a firm unless it stopped one of its subsidiaries from competing to gain a foothold in the U.S. concert promotions market.
- **Threatening and Retaliating Against Venues that Work with Rivals:** Live Nation-Ticketmaster's power in concert promotions means that every live concert venue knows choosing another promoter or ticketer comes with a risk of drawing an adverse reaction from Live Nation-Ticketmaster that would result in losing concerts, revenue, and fans.
- **Locking Out Competition with Exclusionary Contracts:** Live Nation-Ticketmaster locks concert venues into long-term exclusive contracts so that venues cannot consider or choose rival ticketers or switch to better or more cost-effective ticketing technology. These contracts allow Live Nation-Ticketmaster to reduce competitive pressure to improve its own ticketing technology and customer service.
- **Blocking Venues from Using Multiple Ticketers:** Live Nation-Ticketmaster's conduct and exclusive contracts prevent new and different promotions and ticketing competitors and business models from emerging. They block venues from being able to use multiple ticketers, who would compete by offering the best mix of prices, fees, quality, and innovation to fans.
- **Restricting Artists' Access to Venues:** Live Nation-Ticketmaster has increasingly gained control of key venues, including amphitheaters, through acquisitions, partnerships, and agreements. Live Nation-Ticketmaster restricts artists' use of those venues unless those artists also agree to use their promotion services.
- **Acquiring Competitors and Competitive Threats:** Live Nation-Ticketmaster strategically acquired a number of smaller and regional promoters that it had internally identified as threats. This has undermined competition and impacted artist compensation.

Live Nation Entertainment Inc. is a Delaware corporation headquartered in Beverly Hills, California. It describes itself as the "largest live entertainment company in the world," the "largest producer of live music concerts in the world," and "the world's leading live entertainment ticketing sales and marketing company." Live Nation also owns or controls more than 265 concert venues in North America, including more than 60 of the top 100 amphitheaters in the United States. It generates over $22 billion globally in annual revenue from three business segments: concerts (e.g., promotions, venue management, and music festival production), ticketing (e.g., Ticketmaster business), and sponsorship and advertising.

Ticketmaster LLC is a wholly owned subsidiary of Live Nation. It is a Virginia limited liability company with headquarters in Beverly Hills. Ticketmaster sells concert tickets to fans when those tickets first go on sale and operates resale platforms that enable purchasers to resell those tickets at a later time. Ticketmaster is by far the largest concert ticketing company in the United States, multiple times the size of its closest competitor.

View the complaint.

Updated May 23, 2024

Topic

ANTITRUST

Components

Office of the Attorney General | Antitrust Division | Office of the Associate Attorney General | Office of the Deputy Attorney General

Press Release Number: 24-653

Related Content

PRESS RELEASE

Justice Department Withdraws from 1995 Bank Merger Guidelines

The Justice Department announced today its withdrawal from the 1995 Bank Merger Guidelines and emphasized that the 2023 Merger Guidelines remain its sole and authoritative statement across all industries.

September 17, 2024

SPEECH

Assistant Attorney General Jonathan Kanter Delivers Remarks for the Fordham Competition Law Institute's 51st Annual Conference on International Antitrust Law and Policy

New York

September 12, 2024

SPEECH

Attorney General Merrick B. Garland Delivers Address to the Workforce: "An Independent Justice Department"

Washington

Hello everyone.

And thank you, Dawn, for that overly generous introduction.

September 12, 2024

Office of Public Affairs

U.S. Department of Justice
950 Pennsylvania Avenue, NW
Washington DC 20530

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202-514-2007

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202-514-2000

	Agenda Item	Name or Organization	Comments	Attachment	Created
66	812	Urban Works Real Estate	My name is Craig Sweitzer and I own and operate Urban Works Real Estate. I support the Live Nation concert venue development. Unfortunately, I will be out of town during the appeal hearing and I cannot personally testify to show my strong support for the new concert venue. Urban Works' office is located five blocks from the planned project and I understand how important it is as a stakeholder and for our neighboring retail community. The Central Eastside needs a national draw concert venue and the subject location is excellent since it is both central and not impacting a residential neighborhood with noise or congestion. Urban Works has been helping local and national retailers establish commercial real estate for over 20 years. There is a place for both national tenants and local restaurants, breweries and retailers in the central city. A successful commercial retail zone has both national and local commercial vendors, it is an important symbiotic relationship. One acts as a draw and the other compliments and engages locals and visitors alike. It is not fair to "demonize" a national company such as Live Nation simply because they are the best at what they do, but rather, appreciate their investment in our community and their ability to promote our battered neighborhood. Live Nation will bring jobs and music lovers to our community and fill a critical gap for smaller artists that often skip Portland for other cities. Please support the Live Nation concert venue at Water Ave and help my commercial neighborhood get back to business in one of Portland's most vital and interesting communities… Central Eastside!	Yes	09/17/24 4:41 PM
67	812	Chris Olsion		Yes	09/17/24 5:35 PM
68	812	Kate Stanton	I support the appeal, which means I disagree with the decision to approve a new concert venue in the Central Eastside! Keep Portland independent!	No	09/17/24 6:09 PM
69	812	Alicia Stanton	I support the appeal, which means I disagree with the decision to approve a new concert venue in the Central Eastside. Keep Portland independent!	No	09/17/24 6:10 PM
70	812	Individual	Livenation is a predatory monopoly that will greatly harm local music industry. Supporting them opening a venue is transparently a decision of greed and contempt for your city. Do not allow this.	No	09/17/24 6:21 PM
71	812	Patrick Russell	I disapprove of LiveNation potentially ruining Portland's music scene. Keep them out!	No	09/17/24 6:48 PM
72	812	Blaise	As a resident of the neighborhood where the proposed music venue by live nation is slated to be built, I wanted to put in my opinion. I've been attending live music shows for almost 15 years. I've lived in all parts of the country, and I've fallen in love with Portlands beloved local music scene, and it's something that is relatively unique that doesn't exist in many parts of the country. Please, we do not want to bring a music venue from Live Nation. Let the local music scene prosper. We've come so far since Covid lockdowns, do not take three steps back by allowing them to build a music venue here. They are not welcome in Portland, and I hope you let them know that at the hearing. Make Portland stronger by keeping the money here.	No	09/17/24 8:36 PM
73	812	Cammie Turner	I strongly oppose Live Nation establishing a venue in Portland. The monopoly they have in conjunction with Ticketmaster is an obscene corporate abuse. The arts scene should be able to continue to grow and thrive without the imposition of these companies that only care about the bottom line. The environmental, infrastructural, and social implications of Live Nation being allowed to continue building a music venue in Portland is wholly negative.	No	09/17/24 8:51 PM
74	812	Music man		No	09/17/24 9:33 PM
75	812	Isabel Hoff	I support the appeal, which means I disagree with the decision to approve a new concert venue in the Central Eastside. Portland has so many wonderful independent venues that make it a musically rich city. A Live Nation venue will threaten to shut down the smaller venues and monopolize Portland's music scene, as it has in other cities. Please don't let this happen!	No	09/17/24 10:49 PM
76	812	Tori Anderson	I support the appeal	No	09/18/24 6:39 AM

My name is Craig Sweitzer and I own and operate Urban Works Real Estate. Unfortunately, I will be out of town during the appeal hearing and I cannot personally testify to show my strong support for the new concert venue. Urban Works' office is located five blocks from the planned project and I understand how important it is as a stakeholder and for our neighboring retail community. The Central Eastside needs a national draw concert venue and the subject location is excellent since it is both central and not impacting a residential neighborhood with noise or congestion. Urban Works has been helping local and national retailers establish commercial real estate for over 20 years. There is a place for both national tenants and local restaurants, breweries and retailers in the central city. A successful commercial retail zone has both national and local commercial vendors, it is an important symbiotic relationship. One acts as a draw and the other compliments and engages locals and visitors alike. It is not fair to "demonize" a national company such as Live Nation simply because they are the best at what they do, but rather, appreciate their investment in our community and their ability to promote our battered neighborhood. Live Nation will bring jobs and music lovers to our community and fill a critical gap for smaller artists that often skip Portland for other cities. Please support the Live Nation concert venue at Water Ave and help my commercial neighborhood get back to business in one of Portland's most vital and interesting communities… Central Eastside!

Dear Commissioners,

Portland is known for its unique and vibrant music scene – a scene built by independent artists, small venues, and the community that supports them. Our city is currently the last major city in the U.S. without a Live Nation-owned venue, and that independence has been a key part of why our music culture is so special.

But now, Live Nation wants to change that. The proposed venue in the Central Eastside threatens the future of Portland's independent music community. Live Nation and Ticketmaster have long been known for their predatory business practices – practices that harm local artists, local venues, and the fans who support them. This isn't just my opinion; it's a fact that the U.S. Department of Justice and 40 states, including Oregon, are currently suing Live Nation for violations of antitrust laws. They are actively seeking to break up the Live Nation/Ticketmaster monopoly because of its track record of harming music communities across the country.

I ask you to consider what this means for Portland. Our independent venues are already operating on razor-thin margins. They are places where new artists can get their start, where experimental music can thrive, and where the community can come together in a way that reflects Portland's values of creativity, inclusivity, and diversity. If a giant like Live Nation moves in, they have the power to undercut these local venues by controlling ticket prices, artist contracts, and promotional channels. The result? Fewer opportunities for local artists, higher ticket prices for fans, and the loss of the small, independent venues that are the lifeblood of Portland's music scene.

Portland has always prided itself on being different, on supporting the little guy, and on cultivating a creative culture that is truly unique. Allowing Live Nation into our city is a direct threat to that culture. In cities where Live Nation dominates, we've seen fewer independent shows, less diversity, and a loss of culture that has never been regained.

Best regards,
Chris Olson

	Agenda Item	Name or Organization	Comments	Attachment	Created
77	812	AI Synthesis	Hello Commissioners, My name is Abraham Ingle and I live at 4414 SE 28th Place. please do not approve the purchase and sale agreement for the Live Nation project. Live Nation is a monopoly that kills independent music culture. The company is currently being sued by the U.S. Dept. of Justice and 40 states, including Oregon, for violations of antitrust laws. The states seek to break up the Live Nation/Ticketmaster monopoly because the company has a long and documented track record of unfair business practices in music cities like Portland. Representatives from other major music cities, including Austin, Nashville, Chicago, Washington DC, and Des Moines, have outlined specific unfair and unethical practices that have devastated their local independent music industries, including: Purchasing and closing competing venues Building or acquiring a smaller capacity venue in close proximity to Live Nation venues to intentionally consolidate control of touring acts Subdividing its larger venue in a market, and booking smaller capacity shows there that would have otherwise gone to smaller independent venues Pressuring local venues to exclusively use its Ticketmaster software platform for all of their events in order to continue booking Live Nation shows Requiring local artists to sign extended proximity and exclusivity contracts, thereby limiting their ability/frequency to perform Requiring sponsors of music-facing events to sign extended proximity and exclusivity contracts Offering local promoters and artists the use of Live Nation spaces, but at above-market inflated prices	No	09/18/24 9:06 AM
78	812	Carrie Richter representing MusicPortland		Yes	09/18/24 9:39 AM
79	812	Craig Rupert	As an active member in the music community in Portland for 15 years and a touring musician for 20, I'd like to make my voice heard to oppose Live Nation/Ticketmaster's proposed venue. I do not believe it is in our community's best interest to invite in a corporation which is being sued in 40 other states, especially when there is potential for a Monqui venue of similar size which would already have built-in infrastructure for parking and more efficient transportation options to the Lloyd Center. We DO need a venue of this size, but NOT one run by a predatory and monopolistic corporation that would starve smaller, locally owned venues and limit artists from being able to play in town due to proximity and exclusivity contracts. What makes Portland great to me is the community of small businesses and the music/art which can be supported without being overrun by corporate hegemony like other cities. Please oppose Live Nation! Thank you so much for your consideration.	No	09/18/24 10:45 AM
80	812	Jessi Presley-Grusin	Please oppose Live Nation's proposal to open a music venue in the central SE side of Portland. Live Nation is bad for musicians and for the community. They destroy local venues, rip off musicians with exclusivity contracts, and use Ticketmaster to artificially inflate ticket prices so fewer locals can afford to attend. Portland is known for it's thriving independent music scene and Live Nation WILL kill it. Please don't let them open this venue!	No	09/18/24 11:45 AM
81	812	Scott Denny	I do not want additional Live Nation or TicketMaster venues in Portland. They are consistently the most overpriced shows in the city. It's much more enjoyable to use any other company/promoter/owner for going to concerts. I go to at least 50 concerts per year, so I'm very familiar with all the venues.	No	09/18/24 11:58 AM

Bateman Seidel

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September 18, 2024

VIA EMAIL TO: councilclerk@portlandoregon.gov

Mayor Wheeler and Portland City Council
1221 SW 4th Ave
Portland, OR 97201

Re: LU 23-111784 CU AD
Live Nation Event Venue on SE Water Street

Mayor Wheeler and City Council:

This firm represents MusicPortland, a non-profit organization that advocates for Portland's independent music industry. Before the Hearings Officer, MusicPortland raised a number of concerns about transportation conflicts and safety, design and adverse economic impacts in a detailed letter dated July 18, 2024. Ex H35. Rather than restate each of those concerns again here, this letter focuses in on two of the specific criteria that the applicant has not and cannot satisfy. For these reasons and the reasons set forth in Ex H35, the Council should deny this application.

Public Benefit – PCC 33.815.215(C)

This proposal is for a conditional use permit for a major event entertainment venue that has been designed for and will be operated by Live Nation. It is Live Nation that will determine when concerts will occur, which artists will perform, and how audiences (and performer crew and staging needs) are directed to and through an event. As evidenced by the significant testimony regarding Live Nation, it is highly likely that these operations will result in the same unlawful, anticompetitive, monopolistic outcomes that have led the US Department of Justice, along with 30 other states, including Oregon, to bring charges against Live Nation for antitrust violations.

Luckily, the City's adopted conditional use criteria allow this Council to consider this issue. PCC 33.815.215(C) requires a finding that the "Public benefits of the proposed use outweigh any impacts that cannot be mitigated." This public benefit / impacts analysis is not limited to traffic, light or noise, which are squarely covered by the other conditional use criteria or other City building or nuisance standards. Instead, this criterion allows the Council to take a broad and searching review of any other unmitigated impacts. By its plain terms, requiring the consideration of "any impacts," grants the City Council discretion to include economic, social, aesthetic and other impacts that the City may identify, including the possibility of requiring a more certain or generous public benefit because of the public subsidy that is making it possible.

During the proceeding below, the applicant argued that this criterion must be limited to considering only land use related elements such as noise, light, or traffic and faulted opponents for interpreting the criteria "to regulate uncertain economic outcomes that would occur at an unknown time and place." Ex H54, p 13. This statement is entirely belied by the applicant's reliance on its Economic Impacts Analysis, which the applicant uses to identify purported benefits such as "new employment, payroll, spending with local vendors on construction and operations, new tax revenue, and indirect and induced economic activity to the surrounding area." These claimed ramifications not only have nothing to do with traditional land-focused zoning regulations, they are exactly the types of economic-related outcomes that are of tremendous concern to opponents.

As for jobs, as the Oregon DOJ has alleged, Live Nation will employ only those artists who agree to using its promotors and its ticketing arrangements. Audiences will pay more in fees that will profit only Live Nation. Smaller promoters will get squeezed out. For a local music industry that provides 20,000 jobs, nearly $1 billion in labor income and over $3 billion in local economic activity, these fiscal realities flowing directly from granting this approval, cannot be mitigated and require denial.

LUBA has had one occasion to consider the "public benefit" criteria set forth in the conditional use permit process in the City of Portland. In *Belluschi v. City of Portland*, petitioners challenged the public benefit of removing a previously imposed condition of approval requiring removal of the tower on a certain date. 53 Or LUBA 455 (2007) The public benefit that the City identified was additional collocation capacity made possible by retaining the existing tower. Petitioners argued that the need for high powered transmission antennas in the future was entirely speculative and was pursued only for future private economic gain. LUBA disagreed, affirming the City's decision, noting the "undefined and subjective nature of the PCC 33.815.225(D)(2) public benefits requirement."[1] *Belluschi* provides a clear signal from LUBA to the City that: (1) the "public benefits" obligation is broad and not restricted to evaluation of traditional nuisance-like impacts such as noise, dust, or traffic; (2) the City has a practice of not requiring absolute certainty for the expected benefit; (3) the benefit and impact analysis need not be constrained to the immediate surrounding area; and (4) given the "undefined and subjective nature" of the criterion, the City Council has broad discretion in how to use it and LUBA will likely defer to the Council's decision on this question.

Whether or not the City "typically" looks into the economic effects of an end-use or not, the criteria that the Council must apply includes the highly discretionary "public benefits" criterion that not only allows for such consideration, the public nature of this project demands such a rigorous review. This user has a known track record of harming independent musicians and the greater public as well. You would never think of approving a conditional use for a single-source

[1] PCC 33.815.225 sets forth conditional use criteria for radio control towers and the public benefit criterion is identical to the one set forth in PCC 33.815.215.

pet distributor that would require that exotic or wild animals be sold at any store where dogs and cats are also sold, or if the sole waste management company sought approval of a transfer station but had a demonstrated record of substantial pollution violations. The City would not accept a conditional use that would have such adverse impacts on the public and it must not do so in this case.

Safe Access for All Modes - PCC 33.815.215(A)(3)

In the landmark 1926 case *Euclid v. Ambler Realty Co*., the US Supreme Court upheld local governments authority to regulate the use of property through zoning. In that case, the Court spoke of "a right thing in the wrong place — like a pig in the parlor instead of the barnyard." This "pig in a parlor" analogy may no longer be acceptable to discuss single family zoning but it is apt in the conditional use context where the demands resulting from a use cannot be accommodated on a particular property but might be accommodated on a different property located elsewhere. Should the Council conclude that the Live Nation use is not objectionable for its shameful economic practices, it should conclude that locating a use that will attract 3,500 visitors within one block of an active and frequently used train tracks and in an area known for a high vehicle crash rate, is unsafe and akin to a "pig in a parlor."

Conditional use criterion PCC 33.815.215(A)(3) requires finding that:

> "The transportation system is capable of supporting the proposed use in addition to the existing uses in the area. Evaluation factors include safety, street capacity, level of service, connectivity, transit availability, availability of pedestrian and bicycle networks, access restrictions, neighborhood impacts on pedestrian, bicycle, and transit circulation. Evaluation factors may be balanced; a finding of failure in one or more factors may be acceptable if the failure is not the result of the proposed development, and any additional impacts on the system from the proposed development are mitigated;"

During the review below, opponents raised concerns about train crossings. They noted that train crossings extending for up to 40 minutes at any one time currently create absolute gridlock of the transportation system within the Central Eastside. Ex H26. Inviting 3,500 people seeking to get to a concert where much of the parking and access to transit requires crossing the tracks will create stress and chaos. Train / pedestrian conflicts resulted in two deaths and one injury over the past five years, notwithstanding the existence of "standard protective devices" in existence at all crossings. Ex H33, H52 and H54. Although the applicant relies on certain existing safety protections – flashing light signals, automatic gates, and supplemental signage - neither the applicant's traffic engineer or PBOT offered any analysis of the numbers of people who will be stuck on the opposite side of the tracks or the safety implications that could likely result. In fact, the applicant's traffic impact study (TIA) assumed that there was "no pedestrian crossing protection" at any of the train crossings. In the final written argument, the applicant offered what

it claims are examples of railroad tracks located within close proximity to concert venues but there is no expert evaluation of circulation patterns at those stadiums to determine if they are, in fact, comparable. Immediately closure of the public record to new evidence at that point, deprived opponents of any opportunity to point out why these other concert venues are distinguishable.

The only expert evaluation of how many pedestrians, coming from transit, ride share, or on-street parking, could be cut off in the event of a train crossing and what that would mean was offered by licensed traffic engineer Hann Lee in the record at Ex H41.[2] Other than the opponent's expert testimony, there is no other quantification or evaluation. The Hearings Officer could not claim that he relied on the "best evidence in the record" to find that the proposal will not increase the risk of train related death when no evidence actually supports such a finding. *See Armstrong v. Asten-Hill Co.,* 90 Or App 200, 752 P2d 312 (1988) (the substantial evidence standard is not satisfied when "the credible evidence apparently weighs overwhelmingly in favor of one finding and the [decision maker] finds the other without giving a persuasive explanation.")

According to PBOT, because the site does not abut the tracks, additional safety improvements cannot be required of the applicant. Whether this may be true with respect to uses that might be permitted outright, it has no relevance to a conditional use permit where transportation system adequacy and safety for all modes must be maintained. The Hearings Officer concluded that the applicant cannot be required to install or maintain rail crossings and protective devices without citing to any authority. Whether true or not, there is no consideration of other mitigation solutions. For example, the applicant might build a pedestrian overpass to allow for safe passage. If the applicant cannot mitigate the safety concern, the solution is not just to throw up our hands with nothing more than crossed fingers with the hope that concert goers will make good choices as PBOT and the Hearings Officer have in this case. The correct response is to conclude that this property is not suitable for a music venue of this size and deny the application.

Moving beyond the safety hazards created by trains, this area already experiences a high crash frequency resulting primarily from driver inattention or failure to yield. Ex A10 p 8. Injecting hundreds of more vehicles, pedestrians, cyclists and tipsy concert goers searching out their ride share on a dark and stormy night is an absolute recipe for disaster. There is NO transit on SE Water Ave. The closest transit stations are at SE MLK Blvd and SE Grand, four blocks across the railroad tracks through a largely unlit and mostly vacant industrial area, or climbing the non-ADA accessible stairs to the Hawthorne or Morrison Bridge viaducts. The Hearings Officer did not address these safety conflicts and transit shortcomings at all.

[2] Just for a sense of scale, according to the applicant's TIA, the intersection of SE Water / SE Salmon accommodates 200 vehicle trips during the weekday 6 pm hour today and 50 weekday trips during the 11 pm hour. Assuming no increase in background traffic, this use will generate 699 trips at 6 pm, a 3-fold increase beyond what exists today and 1011 trips at 11 pm, 20 times the amount of traffic as exists today.

The focus in the applicant's TIA and PBOT's comments is the finding that including the projected levels of traffic, nearby intersections will continue to meet the City's minimum level of service (LOS) standards and that the applicant will address safety by installing sidewalks around their frontage. Although these would be the limits of what the City could demand if the use was permitted outright where the City has otherwise planned for and built infrastructure at levels deemed sufficient. If a concert venue were proposed further to the east, towards the edge of the Central Eastside Industrial Sanctuary where it could take advantage of the transportation system built to serve the commercial and residential uses that would be one thing; but this use is proposed for the deepest bowels of an industrial area where the surrounding industrial-focused transportation system is not capable of accommodating this highly pedestrian demanding use.

Conclusion

For all of these reasons and for the reasons stated in Ex H35, the Council should decide not to allow a pig in Portland's parlor; let's deny this conditional use and the adjustment requests.

Sincerely,

Carrie A. Richter

	Agenda Item	Name or Organization	Comments	Attachment	Created
82	812	Cameron Miller	Live Nation is a threat to local music venues that host lesser known/independent artists. These are the types of artists that I listen to and a huge reason why I live in Portland. Please leave indie venues and affordable ticket prices in our city!	No	09/18/24 12:28 PM
83	812	Dunn Carney LLP on behalf of Applicants	On behalf of the applicants in the above-captioned matter, please find the attached written memorandum. Please place the attached before City Council. Thank you.	Yes	09/18/24 12:55 PM
84	812	Isaac King	I am writing to oppose Live Nation's proposal for a music venue on Water Avenue near the Hawthorne Bridge. The Ticketmaster\Live Nation behemoth doesn't just threaten Portland's unique and delicate independent music scene, but also the bodily safety of its citizens. I'm going to start with what should be the very obvious ethical issue; Why in the world would Portland bend over backwards to give this industry predator greater access to our city? Ticketmaster has faced legal scrutiny for its anti-competitive practices, including a 2019 U.S. Department of Justice ruling for violating a consent decree by pressuring venues to use their services over competitors. They've been criticized for monopolistic behavior, inflating ticket prices, and adding excessive fees, which has led to multiple lawsuits and fines. (source - https://www.justice.gov/opa/pr/justice-department-sues-live-nation-ticketmaster-monopolizing-markets-across-live-concert) They've also been responsible for repeated failures to address numerous safety issues, which has even resulted in 200 deaths, and at least 750 injuries since 2006--eight of these as recently as 2021. Why would you want to put our citizens in such danger? (source - https://www.npr.org/2021/11/08/1053548075/live-nation-a-company-behind-astroworld-has-a-long-history-of-safety-violations) There are also a number of legitimate concerns about the impact to local infrastructure. The venue would increase traffic on already congested roads, overwhelm limited parking, and create significant public safety concerns. These issues cannot be adequately addressed through conditional approval. This deal with the devil proposal betrays Portland residents' interests. I beg you to oppose both the land use and any city support for this deal, which all but guarantees a significant net loss to the safety and culture of this beautiful but struggling city.	No	09/18/24 1:13 PM
85	812	Ezza Rose	As a working Portland musician of 17 years I oppose Live Nations ventures to have a venue in our city. Please take into consideration our small venues and small artists. -Ezza Rose	No	09/18/24 1:16 PM
86	812	Leah Maurer	Please overturn the permit granted to Live Nation/Ticketmaster and read my letter for why. Keep Portland music local!	Yes	09/18/24 1:41 PM
87	812	Kate O'Brien, MusicPortland	My name is Kate O'Brien and I am the Board President of MusicPortland, but I am also speaking here on behalf of my husband and my three children, all of whom are musicians and concert-goers, one of whom is attending PSU for a degree in Sonic Arts and Music Production. It is hard to convey the vibrancy of our independent music scene here to those of you who may not participate. To see music in both our large and small venues makes me feel proud to live in a musical community that supports and cultivates opportunities for its people. At a time in history where corporatization is driving a wealth gap that is destroying the middle class it is hard to believe that I even have to testify in order to convince my own City Government not to approve the use of city property with a company that is being sued by the DOJ and 40 states for violating antitrust laws. I truly want to believe that as a city we are investing in a future that preserves and expands upon our existing music economy which, in a study done by the Northwest Economic Research Center and Business Oregon, we now know generates over $3 billion annually statewide. I urge you to vote against the Conditional Use Permit and exemptions from the zoning code that would allow a behemoth, predatory juggernaut like Live Nation to come into Portland and threaten what we have here with their predatory business practices. There is no public benefit in having a large music venue that controls the ticketing, promotions, booking, venue operations and which has a track record of buying up smaller venues and closing them down.	No	09/18/24 1:43 PM

Damien Hall
Partner
dhall@dunncarney.com
503.306.5305

September 18, 2024

Portland City Council
1900 SW Fourth Avenue, Room 2500
Portland, OR 97201

Re: Beam Development – Memorandum to City Council
(LU 23-111784 CU AD; Hearings Office Case No. 4240010)

Dear City Council:

On behalf of the Applicants (Beam Development and Colas Development Group), we urge City Council to deny the appeal of the Hearings Officer's approval of a new live music venue located in the Central Eastside ("Application").

The proposed venue will host live events that drive the revitalization and activation of Portland's Central City, and approval of the Application will bring a new first-class venue to what has been a vacant lot for over fifteen (15) years. The proposed venue is sized to bring additional acts to town, and represents an expansion of the City's cultural offerings that will provide unique concert experiences for patrons and economic benefit to Central City small business and the hospitality industry. Simply put, the proposed venue is the kind of revitalizing development that the Central Eastside and Central City need to help rebound from some tough years of reduced activity and disinvestment.

I. Single venue is part of this review

Applicants respectfully request that the City Council fairly apply the standards of Title 33 to the proposed venue. Opposition testimony has consistently urged City decision-makers to weigh the merits of an alternative venue proposed in the Lloyd Center when reviewing this proposal. The City's land use review is not a beauty contest or a race between venues.

The Portland live music scene is strong and can accommodate multiple new venues. Ultimately, more venues result in more live events and more public benefits. One new venue is better than none, and two are better than one. Competition is welcome.

II. Private investment that benefits Portlanders

The proposed venue will receive no public subsidy or financial incentives. The land is being purchased for fair market value and all private improvements, street improvements, and venue operations will be 100% privately funded. Appellant has spread substantial misinformation on this point.

The Applicants (Beam and Colas) that are undertaking the co-development of the site are Portland-based organizations. The principals are both raised in Portland, and have worked on the development of this site for multiple years to bring this exciting opportunity to bring people together to enjoy the arts and further the momentum of the Central City's rebound.

During those same years that the Applicants were working on this project, they were engaged in local efforts to revitalize the CEIC and Portland's Central City, including the Central Eastside's 90-day reset working group with the Mayor's office and the Governor's Value Proposition Committee as part of the Governor's Central City Taskforce.

With the proposal before you, Applicants seek to further the objectives of the City, CEIC, local businesses, concert goers, and the hospitality industry, to advance the reactivation of Portland's Central City and rejuvenate an area and site that have seen a disproportionate public safety impact that has started to improve through the hard work of the City Council and numerous stakeholders in the future of the Central City.

The Applicants are deeply committed to Portland and its success. By way of contrast, the venue currently proposed in the Lloyd Center would be owned and developed by a group in Denver, Colorado with the financial backing and operation by Anschutz Entertainment Group Worldwide. That effort is neither grassroots, independent, small, nor local.

III. The proposed music venue satisfies applicable approval standards.

The Applicant agrees with the robust findings and comprehensive analysis contained in the Staff Report and the Hearings Officer's decision. As expressly found by Staff and the Hearings Officer, the Application demonstrates compliance with all applicable conditional use standards in Portland City Code ("PCC") 33.815.215.A-C and with the adjustment standards in PCC 33.805.040.

The Application also demonstrates compliance with all other standards of the IG1 zone and Central City Plan District. The record contains no evidence to the contrary. A detailed response to the claims included in the appeal is attached as Attachment 1 and the Applicant's final written submission to the Hearings Officer is attached as Attachment 2.

IV. Appellant's concerns regarding market impacts are unrelated to approval standards.

Appellant Music Portland has spent much time and effort trying to rally a small but loud opposition to the proposed venue. Much of this effort focuses on the tenant/operator of the proposed venue, Live Nation. Such focus is misplaced because the approval standards address impacts of the venue limited to the surrounding neighborhood (Central Eastside) and transportation system (trips and parking). The review of the City Council is therefore limited to application of the zoning code, not speculative and generalized market impacts.

The zoning code does not address appellant's concerns with hypothetical downstream economic impacts to unspecified other venues from speculative future actions of the

affiliates of the tenant/operator of the proposed venue. The code is clear on this point and appellants blatantly disregard the meaning and intent of the conditional use standards.

V. Applicants have gone above and beyond with project outreach

Prior to and throughout the Application process, Applicant has engaged with numerous business owners, neighbors, and stakeholders to discuss any concerns, including Music Portland. In fact, in April 2022, before the project went public, Applicant engaged with the leadership of appellant Music Portland in good faith to address any concerns with the venue. In June 2022, after the project went public, Applicant again engaged with Music Portland including other stakeholders. Applicant further engaged with Music Portland at two Prosper Portland roundtable meetings in 2023. Appellant also participated in the proceedings before the Hearings Officer. Testimony raising concerns with appellant's involvement in the process amount to misinformation and only seek delay the critical activation and revitalization of the Central City that will flow from people coming together to experience live music at this venue.

In conclusion, the proposed music venue use complies with approval standards subject to review. For reasons above, the Applicant respectfully requests Council to take action: (1) deny the appeal; and (2) affirm the Hearings Officer's decision.

Thank you for your time and consideration of this matter. Please do not hesitate to contact me regarding this matter.

Very truly yours,

Damien Hall

DRH:mcd

RESPONSE OF APPLICANTS BEAM DEVELOPMENT AND COLAS DEVELOPMENT GROUP TO APPEAL STATEMENT OF APPELLANT MUSIC PORTLAND

The below text in bold constitutes the Applicants' response. Non-bolded type is copied from the notice of appeal submitted by MusicPortland.

Statement of which sections of the Zoning Code the decision violates includes, but may not be limited to:

1) ZC 33.815.215(A)(3) –

Applicant Response: **This standard ensures that the "transportation system is capable of supporting the proposed use in addition to the existing uses in the area." The Applicant has provided expert evidence in its Transportation Impact Study ("TIS") prepared by a licensed professional engineer with DKS Associates. The TIS addresses in detail each of the evaluation factors under 33.185.215.A.3, and found the standard is satisfied. Staff Report Exhibit A-10, at 58-59. The staff reports from Permitting & Development and PBOT both concurred. See H-5; see also H-16. The Hearings Officer's approval ("HO Approval") also found this standard to be satisfied, noting that project opponents "relied on anecdotal inferences that are less persuasive" than the expert TIS and that "project opponents have provided no evidence (expert or otherwise) of the inadequacy of public services to support the proposed venue." HO Approval, page 10.**

a. Unpredictable and lengthy train crossings will interfere with the transportation demands created by 3,500 concert attendees needing to access transit, parking and rideshare options.

Applicant Response: **Contrary to appellant's assertion, patrons will have ample ways to access the venue that do not require crossing train tracks at-grade. Even when a train is present, patrons have five (5) options to get to the site by bike, four (4) options by car, and four (4) pedestrian options. The Applicant has proposed a Transportation Demand Management ("TDM") measure to inform patrons of their options for accessing the venue. See Staff Report Exhibit A-10. The Hearings Officer's approval contains a condition of approval requiring implementation of this TDM measure.**

Further, the TIS includes a detailed field survey (Staff Report Exhibit A-10, Section 4) and a queuing analysis (Staff Report Exhibit A-10, at 53-54) demonstrating that train crossings during the time of shows (6pm to 11pm) were an average length of 3 minutes 27 seconds. Having to choose between taking an alternative route and waiting a few minutes hardly amounts to a failure of the transportation system.

b. This transportation system adequacy criterion requires evaluation of any transportation impacts and mitigation, particularly off-site mitigation, and must extend beyond general PBOT policies and standards that would otherwise apply to uses permitted outright.

Applicant Response: **As discussed above, the record contains multiple detailed analyses evaluating the transportation impacts of the proposed venue. Each of these analyses (TIS, P&D staff report, PBOT staff report) conclude that the evaluation factors indicate that standard is satisfied and the transportation system is capable of supporting the proposed use. Project opponents have provided no evidence to**

the contrary, and the Hearings Officer correctly found that substantial evidence exists demonstrating that 33.815.215.A.3.a is satisfied.

Contrary to appellant's assertion, 33.815.215.A.3.a does not require mitigation or analysis of mitigation unless there is a finding by PBOT of a failure in one or more of the evaluation factors. There is no such finding here. Nevertheless, the applicant's TIS proposes substantial improvements to the surrounding transportation system to bring SE Main, SE Water, and SE Salmon into compliance with city street standards for the blocks adjacent to the site.

All of 33.815.215 are conditional use standards that by definition are not applicable to uses permitted outright.

c. Blanket deferral to PBOT analysis is inadequate where it does not respond to expert transportation engineer testimony identifying inadequacies in the analysis.

Applicant Response: **The HO Approval does not contain a "blanket deferral" to PBOT analysis. Contrary to appellant's assertion, the Hearings Officer fully considered all testimony and evidence and independently decided to approve the proposed venue, stating as follows:**

- **"After independently reviewing the record and the applicable approval criteria the Hearings Officer adopts the Staff Report and its recommendation of approval. The Hearings Officer finds the City's analysis thorough and persuasive." HO Approval, page 5.**

- **"Despite significant and substantial opposition to the proposal, adjustments, and the adequacy of the conditions (contained in both the opposition testimony at the Hearing and the written submissions marked as H-Exhibits), the Hearings Officer finds the proposal meets the approval criteria. On balance, the Hearings Officer finds that, under the facts of this case, the City's and the Applicant's positions are more persuasive than the opposition testimony." HO Approval, page 15.**

To the extent that the "expert transportation engineer testimony" refers to Exhibit H-41, appellant incorrectly asserts that the HO Approval did not respond to Exhibit H-41. The HO Approval specifically addresses H-41 and accepts it into the record, despite the exhibit being submitted after the record deadline. HO Approval, page 3. Even after bending the rules for applicant and expressly accepting their untimely submittal, the Hearings Officer still found their transportation system adequacy and impact arguments to be reliant on "anecdotal inferences that are less persuasive." HO Approval, page 10.

2) ZC 33.815.215(B)-

a. Compatibility in massing and lot coverage alone does not convey the Central Eastside industrial design character. What distinguishes this industrial character is a smooth stucco finish often with highly stylized murals or windows. A "modern" design," whatever that is and angled roof lines is not consistent with any of the surrounding structures.

Applicant Response: **This standard requires the appearance of the proposed venue to be consistent with: (1) the intent of the IG1 zone, and (2) the character of the surrounding**

uses and development.

The Hearings Officer correctly found that the intent of the IG1 zones includes "building coverages and buildings which are usually close to the street" and that the appearance of the proposed venue is consistent with that intent. The HO Approval also correctly relies on the applicant's analysis of building facades and materials that demonstrate the character of the surrounding structures in the Central Eastside Industrial Area, specifically including such design elements as punched openings, painted concrete and masonry, and suspended canopies. See Staff Report Exhibits A-12 (page 9) and A-3. In sum, there is substantial evidence in the record that the appearance of the proposed venue takes inspiration from and is consistent with and complimentary to the character of surrounding structures.

3) ZC 33.815.215(C)-

Applicant Response: **This standard requires that "Public benefits of the proposed use outweigh any impacts that cannot be mitigated." The HO Approval found that the record contained "no negative impacts form the proposed major event entertainment use that cannot be mitigated," because the "venue would largely operate outside the hours of operation of most businesses in the industrial area, and … public services, including the transportation system, are adequate to accommodate the proposed use."**

By way of contrast, the record is replete with examples of public benefit of the proposed project, including:

- **Development of long-time vacant lot**
- **Heightened activity in the evenings will deter crime, reduce discarded waste, abandoned cars and street camping**
- **After-hours activity will support nearby bars and restaurants**
- **Evening concerts would not impact industrial uses, which peak in the daytime**
- **Substantial improvements to the transportation system**
- **Economic benefits to the Central City including new employment, payroll, spending with local vendors on construction and operation**

Ultimately, the HO Approval found 33.815.215.C satisfied "Since there are no negative impacts identified that cannot be mitigated and which public benefits must outweigh."

a. By its plain language, this criterion is focused on "any impacts that cannot be mitigated." This open-ended "any" language is not constrained in any respect and most certainly can and should consider economic and social impacts following from this use. Allowing a use that will introduce a scourge of anticompetitive operations that will injure artists, fans, small promoters and venue operators that will cause real and tangible harm.

Applicant Response: **The purpose of the 33.815.215 is to "ensure that the potentially large size and impacts of [major event entertainment] uses are not harmful to surrounding areas and that transportation services are or will be sufficient to serve the use."**

Appellant presents a novel and expansive interpretation that is plainly inconsistent with the purpose of 33.815.215.C. While it is not stated what

"economic and social" impacts appellants would like to consider, it would appear that this is their attempt to expand the zoning code to include potential impacts to unspecified other venues or operators from speculative future business practices of the affiliated companies of the tenant/operator of the proposed venue.

Such conjecture is well beyond the purpose or intent of Title 33 generally, and the specific purpose of 33.815.215 to address impacts to "surrounding areas" and "transportation services." The HO Approval correctly rejected appellant's overly broad interpretation of 33.815.215.C. HO Approval, page 15.

b. The "use" in this case is not just any event venue but is a use that has been designed and will be constructed through ongoing public subsidy to meet and further Live Nation's monopolistic business model. The expenditure of individual taxpayer dollars in this effort demands a greater showing of public benefit than might be required of private development. This criterion confers on the Council discretion to interpret and apply the public benefit test more broadly or more rigorously on a case-by-case basis as the facts may dictate.

Applicant Response: **Applicant's argument is riddled with misstatements. As expressly reflected in the record and as correctly found by the Hearings Officer, there is no public subsidy for the proposed venue. See H- 54, at 25; see also, HO Approval, at 15. Applicant is purchasing the land for fair market value. The standard application of 33.815.215.C is the same for public and private land. Finally, the venue design is not unlike that of other similarly-sized venues with different tenant/operators, as demonstrated by Hearings Officer Exhibit 46.**

c. The comparator called for in this criterion is not whether the public benefits of this use outweigh externalities resulting from the property in its vacant and unused state. All of the public benefits identified by the applicant as contributing to Central City are entertainment and leisure-focus objectives that do not further any of the objectives for an industrial zone.

Applicant Response: **As discussed above, the applicant has identified numerous public benefits associated with the project. Some of the public benefits relate to reactivation of the area by bringing in patrons. Some of the public benefits relate to economic development both of surrounding businesses and the city more broadly. Some of the public benefits relate to employment creation.**

Of course, this standard (33.815.215.C) does not limit the consideration of such public benefits. The standard does not limit public benefit to "the objectives for an industrial zone" or to exclude development of vacant property.

4) ZC 33.805.040(A)-

a. Allowing trucks to back across SE Water Avenue and park in SE Main Street will block and prevent all "other transportation functions" and compromise the safety of pedestrians, bicycle and vehicles. No conditions of approval mandate the use of flaggers. Any other preventive measures such as signage will likely prove insufficient because drivers in this area are, according to the applicant's TIA, "inattentive."

Applicant Response: **The applicant has worked with PBOT to identify the optimal street improvements and loading requirements to ensure that the venue operations**

do not create any unsafe conditions for users of the surrounding transportation system, including cars, bikes, and pedestrians.

The TIS contains a detailed plan for loading of different size trucks and parking for tour busses. Appellant's generalized assertions are simply contrary to the evidence in the record.

b. The suggestion that "the street would not have the appearance of a loading area when not in use" is belied by uncontroverted testimony that this loading area would nearly always be in use.

Applicant Response: **The record contains no testimony that the "loading area would nearly always be in use." Rather, the record demonstrates that the maximum amount of concerts anticipated in a peak year will be approximately 100 concerts and the loading area will not be in use with a concert for approximately 265 days in a peak year. Thus, the uncontroverted testimony in the record demonstrates that the loading area will not be in use a majority of the time.**

c. Ecoroofs are required because they provide water quality, climate and wildlife objectives. Those objectives are not better met by street trees and roof canopy planters making the site more green than it is today or more green than surrounding development. This finding is not only non-responsive to the language of the standard is particularly problematic since staff found that a revised roof design would accommodate greater ecoroof coverage.

Applicant Response: **The HO Approval considered each of the purposes of the ecoroof standards and found that on balance, the proposed adjustment equally or better meets these purposes. Appellant's statement paraphrases extensive and detailed findings and does not address the reasons relied on by the Hearings Officer in approving the ecoroof adjustement.**

5) ZC 33.805.040(B)-

a. The desired character of the area is set by the Buckman Neighborhood Plan policies, among other things. Plan Objective 5.10 expressly prohibits truck loading that blocks streets.

Applicant Response: **Buckman Neighborhood Plan objective 5.10 is one of seven applicable objectives that, along with the character statement of the IG1 zone, the purpose statement of the Central City Plan District, and the Central City 2035 Plan, collectively establish the "desired character of the area."**

Thus, consistency with objective 5.10 is not determinative of consistency with the desired character of the area. But even if that were the case, the application complies with objective 5.10 of the Buckman Neighborhood Plan.

Worth noting is that appellant mischaracterizes the nature of objective 5.10, which is to "discourage trucks from blocking the streets when loading and unloading, except in the designated truck zone."

The loading proposal would use part, but not all, of SE Main Street when loading and unloading. SE Main would never be blocked during loading or unloading, as two way traffic would still be able to travers SE Main Street during loading and

unloading. Further, the HO Approval requires a PBOT loading permit, which designates the loading area as the truck zone, consistent with objective 5.10. See HO Approval, at 16.

Appeal fee is enclosed.

DUNN CARNEY LLP

Memorandum

To: William Guzman, Chief Hearings Officer

From: Damien Hall

Date: July 31, 2024

Re: Applicant's Final Written Argument (Hearings Office Case No. 4240010)

I. Introduction

This memorandum is the final legal argument of Beam Development ("Applicant") in the above-referenced conditional use review for a new live music venue located in the Central Eastside ("Application").

As discussed in additional detail below, the Application proposes the exact kind of live events that are key to activation and revitalization of the Central City, and approval of the Application will bring a new first-class venue to what has been a vacant lot for over fifteen (15) years. The proposed venue is of a size that will bring additional acts to town, and represents an expansion of the City's cultural offerings that will provide unique concert experiences for patrons and economic benefit to Central City small business and the hospitality industry. In short, the proposed venue is the kind of revitalizing development that the Central Eastside and Central City need to help rebound from some tough years of reduced activity and disinvestment.

The Applicant agrees with the findings and recommendation of approval contained in the Staff Report and Recommendation to the Hearings Officer ("Staff Report") [Exhibit 5]. The Applicant also is amenable to imposition of the revised conditions of approval proposed by and City staff in the Staff Memo [Exhibit 6]. The discussion at the hearing and evidence in the record focus on the conditional use standards at 33.815.215.A-C and the adjustment standards at 33.805.040. The Application demonstrates compliance with all other standards of the IG1 zone and Central City Plan District and the record contains no evidence or argument to the contrary.

The balance of this memorandum demonstrates that the conditional use and adjustment standards are satisfied and addresses some of the arguments raised that do not relate to the approval criteria to maintain factual accuracy of the record.

II. Response to Conditional Use Standards - PCC 33.815.215.A-C

The purpose of the Major Event Entertainment conditional use approval criteria is to "ensure that the potentially large size and impact of these uses are not harmful to surrounding areas and that transportation services are or will be sufficient to serve the use." See PCC 33.815.215. There are three (3) applicable approval standards, relating to public services, appearance, and benefit.

The public services standards are the focus of the TIS and review by the bureaus charged with providing public services. As discussed further below, no bureaus have expressed concern about the provision of services. The Applicant has provided extensive expert evidence in the form of the TIS and supplemental analysis, which identifies significant improvements to the transportation systems and transportation demand management measures. The purpose of this expert analysis is not just to demonstrate that the system will have the technical capacity to functionally serve all modes of transportation, but to ensure that venue patrons are able to have a first class experience, not just at the event but on their way to and from the venue and surrounding area. As evidenced by the Staff Report, City staff has reviewed the TIS and supports its conclusions.

In contrast, project opponents have provided no evidence (expert or otherwise) of the inadequacy of public services to support the proposed venue.

Each of the conditional use approval standard is addressed below, with the language of the approval criteria in *italics*. For the following reasons, the Applicant respectfully requests that the Hearings Officer find that the standards of 33.815.215.A-C are satisfied.

PCC 33.815.215 - MAJOR EVENT ENTERTAINMENT

A. Public services.

1. *The proposed use is in conformance with the street designations shown in the Transportation Element of the Comprehensive Plan;*

Response: Compliance with this standard is demonstrated by substantial expert evidence in the record. PBOT provides a detailed written response to this criterion [Staff Report Exhibit E-2; see also, Exhibit 16, at 2]. As expressly determined by PBOT and as adopted by the Staff Report, PBOT found that the proposed conditional use project is consistent with the surrounding street designations of the Transportation Element of the Comprehensive Plan and TSP classifications" [*Id*.; see also, Exhibit 5, at 4].

Further, the Applicant's Traffic Impact Study ("TIS") [Staff Report Exhibit A-10], contains a detailed discussion of how the proposed use is appropriate for the site's traffic street designations identified in Table 1 of the TIS [Staff Report Exhibit A-10, at 57]. The design classifications (SE Salmon Street and SE Main Street are Local Streets, and SE Water Avenue is a Neighborhood Main Street) are also suited for the proposed land use [*Id*.; see also, Staff Report Exhibit A-12, at 5]. The intended land use of these designations is:

- SE Salmon Street and SE Main Street (Local Streets): Local Streets are multimodal and important for local circulation of trucks in commercial and industrial areas.

- SE Water Avenue (Neighborhood Main Street): These are segments of Neighborhood Corridors located within the Central City and areas of intensive commercial activity. They are intended to serve a mix of uses which are oriented toward the street.

In furtherance of these design classifications, Applicant will improve the street frontages of the proposed venue to feature wider sidewalks corridors on SE Main Street and SE Salmon Street, consistent with their local street designations in a Pedestrian District and along SE Water Avenue, consistent with its Major City Walkway and Neighborhood Main Street designations. Such improvements will be reviewed through a Public Works Permit [Exhibit

5, at 8]. Currently, the street improvements do not meet City standards [Exhibits 49 and 50].

2. *If the proposed use will be located in an industrial zone, it will not have a significant adverse effect on truck and freight movement;*

Response: Compliance with this standard is demonstrated by substantial expert evidence in the record. As addressed in detail in the TIS, the project will not have a significant adverse effect on truck and freight movement and will protect the important freight connection between the Central Eastside and nearby regional truck routes along Interstate 5 and OR 99E [Staff Report Exhibit A-10, at 57]. Adjacent and nearby streets will continue to fully accommodate truck movements (and all modes of transportation). The loading dock and staging area for the proposed venue will be located away from the SE Water Avenue Priority Truck Street to allow efficient passage for large vehicles along SE Water Avenue [Staff Report Exhibit A-10, at 57; Staff Report Exhibit A-10, Section 17 – Traffic Control Plan]. Loading-related truck movements will ultimately be addressed pursuant to an angle loading permit or other permit approved by PBOT, and the TIS contains a traffic control plan for ensuring that movements using Water Avenue are performed efficiently and safely. SE Main Street and SE Salmon Street are not used for truck and freight movement due to vehicular traffic terminating to the west of the site, and the lots along these street sections remaining vacant.

Further, PBOT reviewed and concurs with the TIS, stating as follows:

> "The proposed use is located within the Central Eastside Industrial Sanctuary. The applicant's TIS [Staff Report Exhibit A-10] provided an analysis of existing, projected no-build, and post-development multi-modal transportation patterns. Conclusions indicate that since all of the development is located west of SE Water Ave, with the abutting east-west streets of SE Salmon and SE Main terminate into the Eastbank Esplanade, the proposed development will not conflict with existing truck and freight movement throughout the district. This criterion is met."

[Staff Report Exhibit E-2; Exhibit 5, at 5; Exhibit 16, at 2].

3. *Transportation system:*

    a. *The transportation system is capable of supporting the proposed use in addition to the existing uses in the area. Evaluation factors include safety, street capacity, level of service, connectivity, transit availability, availability of pedestrian and bicycle networks, access restrictions, neighborhood impacts, impacts on pedestrian, bicycle, and transit circulation. Evaluation factors may be balanced; a finding of failure in one or more factors may be acceptable if the failure is not a result of the proposed development, and any additional impacts on the system from the proposed development are mitigated;*

Response: The Applicant's traffic engineer has evaluated each of the evaluation factors to determine that that "with the recommended improvements, the transportation system will be capable of safely supporting the proposed venue, in addition to accommodating existing uses" [Staff Report Exhibit A-10, at 58-59]. PBOT staff have also specifically reviewed the TIS (Staff Report Exhibit A-10) and approved the methodologies, analyses, assumptions, findings, and conclusions therein, and confirmed that the evaluation factors under this standard have been addressed and satisfied. The Applicant agrees with the robust findings in the Staff Report

[Exhibit 5, at 5-8] and PBOT's memorandum [Exhibit 16, at 2-5], which determined that the transportation system is capable of supporting the proposed use in addition to existing uses.

The Hearings Officer should find that the Application satisfies this criterion based on extensive evidence in the record. The Applicant further addresses each evaluation factor and responds to oppositional testimony raised during the course of the proceedings, as follows:

- Safety: For vehicle safety, the Applicant's traffic engineer utilized Oregon Department of Transportation's (ODOT) Crash Data System over a five-year period from January 2016 to December 2020. See Staff Report Exhibit A-10. There were 66 crashes recorded at the study intersections over the five-year period (see Table 4), with the most crashes occurring at the SE Stark St/SE Grand Ave and SE Stark St/SE MLK Jr Blvd intersections. *Id*. at 19-20. Seven involved people walking or biking, including one at the SE Water Ave/SE Salmon St intersection. *Id*. at 8. The most common collision types at the study intersections were angle, turning and rear-end crashes, many of which show "no yield" or "disregarded traffic signal" as the cited cause. *Id*. In addition, the Union Pacific study rail crossings along the segment between SE Stark Street and SE Clay Street also had three reported incidents in the past five years, two in 2020 and one in 2022, two at the SE Salmon Street and one at the SE Clay Street crossings (see Table 5). *Id*. at 9-10. Each of these incidents included a train striking a pedestrian, with two resulting in a fatality and one resulting in an injury.

  When an intersection's crash rate (crashes per million entering vehicles) is greater than the critical crash rate (an intersection's crash history compared to similar intersections, adjusting for volume), it's an indication that a design deficiency may exist and further study is warranted. As shown in Table 6, one of the identified intersections is located at the intersection of SE Water Ave/SE Salmon St – where the proposed use is located. Staff Report Exhibit A-10, at 11. This is a 4-leg intersection with stop control located on the SE Salmon St approaches. Of the 6 recorded crashes over the 5-year period, four involved people running the stop sign (one being a bike running the stop sign), and two involved drivers running into a stopped vehicle (one being a parked car). *Id*., at 10-11. Of the four collisions where a driver or bike ran the stop sign, the direction of travel was split between the east and west approaches of SE Salmon Street and included either an inattentive driver "failing to yield" or "passing the stop sign" as the cause, rather than an intersection design flaw. *Id*. As further addressed in DKS's Technical Memorandum, the proposed venue will provide frontage improvements adjacent to these intersections which can improve driver awareness when approaching the SE Water Avenue intersection along SE Salmon Street; but overall these collisions were caused by inattentive drivers and the proposed venue is not anticipated to exacerbate it. See Exhibit 15.

  Moreover, the predicted accident probability based on current safety protection for each at-grade study crossing is summarized in the table below for the 2025 No-Build and 2025 Build scenarios. As shown in the table, the accident probability analysis found the study crossings to be well below 0.50 accidents per year with existing crossing safety protection, and the increased traffic in the 2025 Build scenario would not be expected to result in any material change to the frequency of accidents compared to the 2025 No-build scenario. See Exhibit 52, at 4-6.

Table 1: At-Grade Study Rail Crossing Safety Assessment

STUDY RAIL CROSSING*	PREDICTED ACCIDENTS (ACCIDENTS/YEAR)		
	FUTURE NO BUILD 2025	FUTURE BUILD 2025	CHANGE (2025 BUILD- 2025 NO BUILD)
SE STARK STREET (754542S)	0.006	0.007	0.001
SE YAMHILL STREET (754550J)	0.004	0.004	0.000
SE SALMON STREET (754552X)	0.207	0.208	0.001
SE MAIN ST (754553E)	0.003	0.004	0.001
SE CLAY STREET (754559V)	0.107	0.107	0.000

Furthermore, the proposal is designed to ensure safe conditions for all modes and PBOT standards are designed to provide safe conditions for all modes, especially pedestrian and cyclists. The Applicant will be required to dedicate property along all three frontages and reconstruct the abutting pedestrian corridor to City standards. Exhibit 16, at 3. The TIS also recommended curb extensions at both the SE Salmon and SE Main Street intersections. The curb extension into SE Main Street (see Figure 10 of Staff Report Exhibit A-10) would shift the travelway slightly south for drivers heading westbound away from SE Water Avenue and would provide space for a tour bus to be staged on-street during events to the east of the loading dock for the proposed venue. Staff Report Exhibit A-10, at 36-37. The curb extension into SE Salmon is adjacent to the proposed bike parking on SE Salmon Street and is recommended to support the proposed bike parking. *Id*., at 37 and 39. As noted by PBOT, there is also a planned two-way cycle track along the site's SE Water frontage in the future. Exhibit 16, at 3. Additional safety improvements such as crosswalk stripping, signage, lighting, etc. will be determined during the review of the Public Works permitting process. *Id*.

Project opponents assert that the site may not be adequately lit and that should be accounted under the "safety" factor. Simply put, there is sufficient street lighting in the area surrounding the site and along the streets which provide pedestrian access to the site, as demonstrated by the photographs of the area taken on 7/23/24 at approximately 10pm [Exhibits 49, 50, 51]. Further, development of the proposed venue will result in new street lighting improvements to city standards immediately adjacent to the site, further ensuring an adequately lit and safe experience for venue patrons.

On the issue of traffic safety, a project opponent also submitted testimony alleging various traffic impact-related arguments that the proposed use would generate: conflicts with trains as it relates to pedestrian access and rail crossings; increased darkness and poor visibility for pedestrians at late hours; increased alcohol use; and increased accidents. See Exhibit 35. These contentions should all be denied for the three reasons below.

First, as explained in Applicant's Exhibit 52, the standard protective devices at rail crossings in Oregon are installed and maintained by the railroad (not the Applicant) per OAR 741-110-0020 to 0090 and 741-115-0010 to 0080. See Exhibit 52, at 4. The

crossing characteristics near the proposed venue are documented in the TIS at SE Stark Street, SE Yamhill Street, SE Salmon Street, SE Main Street and SE Clay Street (see page 6 of the TIS), and include advance warning pavement markings and signage, and post mounted flashing light signals, automatic gates and supplemental signage indicating the number of tracks at the crossing, with the crossing at SE Clay Street also including flashing-light signals on cantilevered supports. *Id*. These grade crossings also include nearby illumination to provide light during hours of darkness. *Id*. In fact, Exhibits 49, 50, 51 show that visibility at night in the surrounding area and at the site are not impaired and include nearby illumination. Exhibit 52 (at. p. 2) further demonstrates that rail crossings do not pose operational safety concerns.

Second, regarding alcohol consumption, the approval standards do not require projecting and accounting for impairment of individual users of the transportation system. That being said, our proposed venue operator is committed to responsible alcohol service as evident in the record, and it has been a member of the TEAM Coalition (Techniques for Effective Alcohol Management), which is a non-profit organization that trains and certifies concessions, operations, and security staff on safe and responsible alcohol service. See Exhibit 52, at 12. The proposed venue will also comply with State law, which maintains its own robust alcohol regulations. *Id*.

Third, regarding alleged traffic safety concerns and increased accidents, such contentions are unfounded for the reasons already addressed above. Specifically, as noted in Table 1 above, the proposed use is not expected to result in any material change to the frequency of accidents. To the extent that the project opponent alleges that the TIS failed to consider employee trip generation, that contention is simply untrue. As expressly noted in Applicant's Exhibit 52 (at p. 6), employee trip generation information was considered in the analyses and summarized in the TIS (Staff Report Exhibit A-10, at 21-24)

Further, during the second open record period, traffic expert evidence (Exhibit 41) was submitted on behalf of Bateman Seidel in response to the Applicant's TIS (Staff Report Exhibit A-10). The second open record period was however limited to responses to new evidence submitted during the first open record period. The TIS was not submitted during the first open record period and Exhibit 41 was not in response to any new evidence submitted during the first open record period. Therefore, Exhibit 41 should be excluded from the record in its entirety.

Even if Exhibit 41 is reviewed on the merits, the traffic comments are unsound and inconsistent with the extensive analysis provided in the TIS and additional evidence in the record. The traffic comments simply agree with Bateman Seidel (Exhibit 35) without providing any empirical traffic data and analysis and further argues that the Applicant has not provided adequate traffic analysis to fully determine impacts and mitigation. To the contrary, as noted above, there is extensive evidence in the record demonstrating the methodologies, analyses, assumptions, findings, and conclusions with regard to traffic safety, intersection capacity, Level of Service (LOS), connectivity between travel modes, trip generation including employee trip generation, multi-modal safety, potential impacts, mitigation measures, and proposed public improvements. See Staff Report Exhibit A-10; Exhibit 15; Exhibit 16; see also, Exhibit 52, at 4-6. Thus, any allegations including safety-related contentions raised in Exhibit 41 should be denied.

Finally, a project opponent also contends that no venue can be safely located in proximity to a rail line. Exhibit 35. This is simply incorrect as demonstrated by many venues across the county being located in proximity to a rail line. See Exhibit 52, at 7-11. Specific to the subject site, the traffic engineer analyzed the increase in pedestrian crossings for safety impacts and found that the proposed use would not result in any material change, as discussed above. See Exhibit 52, at 4-6. Even if the Hearings Officer finds that safety remains in question, the Applicant has demonstrated compliance with all of the identified evaluation factors under this standard on balance including safety considerations. Any contentions to the contrary should therefore be denied.

- Street Capacity/Level of Service (LOS)*:* To determine the pre-build and post-build intersection capacity and LOS, turning movement data was obtained for the study intersections during the weekday and weekend pre-event period (6 p.m. to 8 p.m.) and post-event period (10:00 p.m. to 12:00 a.m.). See Staff Report Exhibit A-10, 12. Daily motor vehicle count data was also collected adjacent to the proposed venue along SE Water Avenue, south of SE Salmon Street and north of SE Main Street. *Id*. The count data indicates that approximately 4,900 vehicles pass the proposed venue along SE Water Avenue during an average weekday. *Id*. Of these vehicles, 1,300 travel northbound and 3,600 travel southbound. The highest number of trips along SE Water Avenue occurs from 5:00 – 6:00 p.m., with 488 vehicles passing the proposed venue (157 northbound and 331 southbound). *Id*. During the pre-event and post-event peak hours, 165 and 35 vehicles pass the proposed venue along SE Water Avenue, respectively. *Id*. For City study intersections along SE Water Avenue not designated on the Metro Regional Transportation Plan Arterial and Throughway Network, the City of Portland standards require a LOS "D" or better to be maintained for signalized intersections and a LOS "E" or better for intersections with stop control. *Id*., at 12-13. As shown in Table 7 of the TIS, all study intersections meet the current mobility targets during the weekday and weekend pre-event and post event peak hours. *Id*., at 14-15. All intersections along SE Water Avenue operate with a LOS B or better, while the signalized intersections at SE Stark Street/SE Grand Avenue and SE Stark Street/SE Martin Luther King Jr Boulevard operate with a LOS C or better, well below the current mobility targets. *Id*., at 14.

  For Post-build expectations, Table 17 of the TIS shows the future 2025 intersection operations at study intersections, with the proposed venue. *Id*., at 47-48. As shown, all study intersections are expected to continue to meet mobility targets despite the added traffic growth from the proposed venue through 2025, despite an expected increase up to 14 percent during the pre-event peak hour and up to 41 percent during the post-event peak hour. *Id*., at 47. All intersections along SE Water Avenue are expected operate with a LOS C or better, while the signalized intersections at SE Stark Street/SE Grand Avenue and SE Stark Street/SE Martin Luther King Jr Boulevard also operate with a LOS C or better. *Id*. Therefore, the system evaluation found no street capacity or level of service impacts with the proposed venue, as shown in Table 17, 18 and 19. *Id*. at 58.

- Pedestrian, Cycling, and Transit Availability: The proposed venue is very accessible to pedestrians and bicyclists and is well-served by a network of continuous sidewalks and bike facilities on the surrounding streets between nearby existing private vehicle parking, bike parking, ride hailing or transit stops. Staff Report Exhibit A-10, at 11. The proposed venue is also adjacent to existing bikeways along the Eastbank

Esplanade, SE Water Avenue and SE Salmon Street. *Id*. at 7. Current transit service near the proposed venue is primarily accessed via stops located on SE Grand Avenue and SE Martin Luther King Jr Boulevard between SE Salmon Street and SE Taylor Street, on the SE Madison Street and SE Hawthorne Boulevard viaducts (accessed via stairs from SE Water Avenue), on the SE Morrison Street and SE Belmont Street viaducts (accessed via stairs from SE Water Avenue), along SW 1st Avenue in downtown Portland across the Morrison Bridge, and near SE Tilikum Way. *Id*. at 7-8, 58. Event attendees and employees who utilize transit for travel to and from the venue would primarily utilize SE Water Avenue, SE Salmon Street and the Eastbank Esplanade to access transit services before and after events. *Id*. at 58. Current schedules indicate that the TriMet Routes 6, 14 and 15 and MAX light-rail service near the proposed venue extends beyond the conclusion of a typical event (i.e., expected to be 11:00 p.m. or later for most events). *Id*.

- Connectivity*:* The subject site located at the intersection of three ROWs meeting the City's Street spacing standards noted in 17.88.040. Therefore, additional connections are not required.

- Access Restrictions: Access is not allowed on the SE Water Avenue and SE Salmon Street frontages given the Major City Bikeway designation that prohibits it. Of the three frontages, SE Main Street is the only frontage that allows for vehicular access. As discussed further below, the Applicant proposes to provide loading from SE Main Street, reviewed through a loading permit as determined by PBOT.

- On-Street Parking Impacts*:* Parking surveys were conducted between 6:00 p.m. and 11:00 p.m. on a weekday (Thursday, July 27, 2023) and a weekend (Saturday, August 5, 2023) within a 0.25 mile or about a 10-minute walk of the proposed venue, which is generally considered a comfortable walking distance. Staff Report Exhibit A-10, at 15. This roughly includes the blocks bounded by the Willamette River to the west, SE Morrison Street to the north, SE Grand Avenue to the east and SE Clay Street to the south. *Id*. On-street parking in the surveyed area is either permit parking (i.e., Zone G or Zone N permit) or available via a 2-hour time limit for non-permit holders and enforced on weekdays only from 7 a.m. to 6 p.m. in non-metered spots and 8 a.m. to 6 p.m. in metered spots. *Id*. As shown in Table 14, about 1,318 parking spots were identified within the surveyed area, including 1,084 on-street parking stalls and 234 parking spots in public off-street lots (see Figure 16 and Figure 17). *Id*. at 40-41. A maximum estimated parking occupancy for the entire surveyed area of 32 percent was observed during the weekday and 17 percent was observed during the weekend, both occurring in the 5:00 p.m. and 7:00 p.m. survey period. *Id*.

  Table 15 of the TIS shows that a sold-out concert is estimated to generate demand for 915 parking spaces during both a weekday and weekend event, with attendee and employee arrivals occurring between 6:00 p.m. and 9:00 p.m. and most assumed to use parking locations within 0.25 miles of the proposed venue (i.e., 763 of the 915 parking spaces). *Id*. at 42-43. The total occupied parking spaces with the proposed venue is estimated to be highest between 8:00 p.m. and 9:00 p.m. during both a weekday and weekend event when the attendee and employee parking demand is at its highest (i.e., demand for 763 spaces within 0.25 miles of the proposed venue). *Id*. The parking occupancy rate during this period is estimated to reach 82 percent during a weekday event (i.e., 1,074 parking spaces) and 71 percent during a weekend event (i.e., 930 parking spaces) for the 1,318 parking spaces within 0.25 miles of the

proposed venue. The estimated parking occupancy rates between 6:00 and 8:00 p.m. are under 80 percent for a weekday event and under 70 percent for a weekend event. *Id*.

Table 16 of the TIS shows that a weekday special event is estimated to generate demand for 131 parking spaces, with attendee and employee arrivals occurring between 12:00 p.m. and 3:00 p.m. and all are assumed to use parking locations within 0.25 miles of the proposed venue. *Id*., at 44. The total occupied parking spaces with the proposed venue is estimated to be highest between 1:00 p.m. and 2:00 p.m., when 1,135 parking spaces are utilized. *Id*. This represents an 86 percent occupancy rate for the 1,318 parking spaces within 0.25 miles of the proposed venue. The estimated parking occupancy rates between 12:00 and 1:00 p.m. and are 2:00 and 3:00 p.m. are at or below 84 percent. *Id*. PBOT regularly evaluates the on-street parking demand and has the ability to adjust controlling factors in accordance with existing practices and policies. See Exhibit 16, at 4.

- Neighborhood Impacts*:* The purpose of the IG zone is to protect the Industrial Sanctuary area designated by the Comprehensive Plan. The Industrial Sanctuary zones identify areas where industrial uses may locate, while other uses – such as the current proposal – are restricted to prevent potential conflicts and to preserve land for industry. Here, the proposed venue is located on the edge of the Central Eastside subdistrict, and the majority of proposed operations would occur when many industrial and allowed uses are closed, offsetting the impact to the district.

Accordingly, for the reasons above, the Hearings Officer should find that this criterion is met.

b. Measures proportional to the impacts of the proposed use are proposed to mitigate on- and off-site transportation impacts. Measures may include transportation improvements to on-site circulation, public street dedication and improvement, private street improvements, intersection improvements, signal or other traffic management improvements, additional transportation and parking demand management actions, street crossing improvements, improvements to the local pedestrian and bicycle networks, and transit improvements.

The TIS found no off-site transportation impacts that result from the proposed venue based on the analysis comparison of no-build versus build. See Staff Report Exhibit A-10, at 59. As found in the TIS, the only impacts of the proposed use are on-site transportation impacts resulting from new site generated trips, which will be mitigated with proposed improvements. See Staff Report Exhibit A-10, at 59. Transportation impacts resulting from new site generated trips will be mitigated with improved street frontages to feature wider sidewalks, to include 12-foot sidewalk corridors on SE Main Street and SE Salmon Street, consistent with their local street designations in a Pedestrian District and a 15-foot sidewalk corridor along SE Water Avenue, consistent with its Major City Walkway and Neighborhood Main Street designations. *Id*., at 58.

In addition, a transportation and parking demand management plan (TDM) (Staff Report Exhibit A-10, Section 1) was also prepared for the proposed venue to reduce the impact of events on the transportation system and provide employees and attendees with information and incentives to use transportation methods other than single occupancy vehicles. The plan provides strategies to increase the transit, walking, and biking travel options, along

with traffic management techniques to ensure that people who travel via motor vehicle effectively navigate to their parking, drop-off, or pick-up location with fewer delays than what would occur under an unmanaged setting. *Id*. PBOT Parking Control and Traffic Engineering will also evaluate ride hailing locations as deemed appropriate to serve the use and reserve the right to modify and relocate such service locations as the project comes online. Staff Report Exhibit E-2.

Further, as described in further detail in Applicant's Technical Memorandum, given the planned future two-way cycle track on the west side of SE Water Avenue adjacent to the proposed venue, no curb extensions are required into SE Water Avenue. Exhibit 15, at 2. To support this future two-way cycle track improvement, the existing curb extension into SE Water Avenue at the northwest corner of the SE Main Street intersection is proposed to be removed as part of the recommended curb extension improvement noted above into SE Main Street at the same corner. *Id*. These proposed improvements are also recommended to include the associated crosswalk striping and signage as required. The final design of the curb extension and overall crossing/street layout will be determined during the public works permitting process. *Id*.

The Applicant also identified several Capital Improvement Projects (CIP) in and around the area that will also help mitigate anticipated impacts and strengthen the City's mode-split goals. See Staff Exhibit A-10, at 55-56 and 59. To the extent that project opponents argue the insufficiency of such CIP or the resulting transportation system, it is worth noting that substantially more trips to the Oregon Museum of Science and Industry (OMSI) are adequately accommodated on a daily basis that would be created by the venue [Exhibit 52, at 2]. OMSI is similarly located west of the rail line in the Central Eastside. As reflected in Exhibit 52, throughout OMSI's history at 1945 SE Water Avenue, it has not had an accident with a visitor and the train, and OMSI does not anticipate operational impacts from any rail operations. Exhibit 52, at 2.

In conclusion, the Staff Report and PBOT evaluated and analyzed the above measures in detail to find that the project will be able to sufficiently mitigate transportation-related impacts immediately surrounding the site and within the district. Exhibit 5, 8-9; Staff Report Exhibit E-2; Exhibit 16, at 2. Thus, with the proposed measures, the Hearings Officer should find that this criterion is met.

> *c. Transportation improvements adjacent to the development and in the vicinity needed to support the development are available or will be made available when the development is complete or, if the development is phased, will be available as each phase of the development is completed.*

Response: As noted above, all required frontage improvements, payment into the bike fund, and implementation of TDM strategies will be in place by the time the development is complete. Thus, this criterion is met.

In sum, as expressly found by PBOT and based on the evidence included in the record, the Applicant has demonstrated with required frontage improvements, implementation of proposed TDM measures, and adhering to conditions set forth in the appropriate angle loading permit as determined by PBOT, the proposed project will support access, safety, and function for users of all modes; and that the transportation system will be capable of supporting the proposed venue, in addition to accommodating the existing uses in the area.

See Exhibit 16, at 5. The Hearings Officer should therefore find that PCC 33.815.215.A.3.a-c is met.

4. *Public services for water supply, police and fire protection are capable of serving the proposed use, and proposed sanitary waste disposal and stormwater disposal systems are acceptable to the Bureau of Environmental Services.*

Response: The record contains substantial expert evidence demonstrating compliance with this standard. Specifically, each pertinent City bureau has been actively involved in the review of this Application and have confirmed there are no public service inadequacies.

- The Water Bureau and the Fire Bureau reviewed the proposal and responded with no objections, indicating that adequate water supply and fire protection would be available. [Staff Report Exhibits E-3 and E-4; Exhibit 5, at 10].

- The Police Bureau reviewed the proposal and responded that police would be able to adequately serve the proposed use [Staff Report Exhibit E-5; Exhibit 5, at 10].

- The Bureau of Environmental Services also reviewed the application and found the proposed sanitary sewer connection and stormwater management plan are acceptable [Exhibit E-1; Exhibit 5, at 10].

- A project opponent contends that there is nothing in the record indicating that the proposed venue had been reviewed by the City's Fire Bureau. Exhibit 35. To the contrary and as noted above in Staff Report Exhibit E-4, the Portland Fire & Rescue ("PF&R") reviewed the proposal and responded with no objections to the Application. Further PF&R analysis will occur during the building permit process.

B. *Appearance. The appearance of the facility is consistent with the intent of the zone in which it is to be located and with the character of the surrounding uses and development;*

Response: PCC 33.140.030.C states the intent of the General Industrial zones, including the IG1 zone that applies to the subject site:

> "The General Industrial zones are two of the three zones that implement the Industrial Sanctuary map designation of the Comprehensive Plan. The zones provide areas where most industrial uses may locate, while other uses are restricted to prevent potential conflicts and to preserve land for industry. The development standards for each zone are intended to allow new development which is similar in character to existing development. The intent is to promote viable and attractive industrial areas.
>
> 1. General Industrial 1. IG1 areas generally have smaller lots and a grid block pattern. The area is mostly developed, with sites having high building coverages and buildings which are usually close to the street. IG1 areas tend to be the City's older industrial areas.
>
> 2. General Industrial 2. IG2 areas generally have larger lots and an irregular or large block pattern. The area is less developed, with sites having medium and low building coverages and buildings which are usually set back from the street."

The site is at the western edge of an older industrial area, and the I-5 freeway and the Willamette River are just west of the site. See Exhibit 37, at 11. The lots to the north and south of the proposed building are undeveloped, and no development is currently proposed for these lots. See Staff Report Exhibit A-7, at 2; see also, Exhibit 45, at 1-2. Properties east of the site, on the opposite side of SE Water Street, are developed with one- and two-story industrial and commercial buildings. Exhibit 45, at 1-2. A larger, four-story building (the Eastbank Commerce Center) is one block north of the proposed concert venue.

As intended for the IG1 zone, this area has a grid block pattern and relatively small lots for an industrial area. (The concert venue lot would be about 32,000 square feet after required street dedications.) Since this proposal is to construct a new building on a currently vacant lot, and since that building would be close to all three abutting streets, covering most of the lot area, the proposal is consistent with the intent of the IG1 zone to have "high building coverages and buildings which are usually close to the street." See Staff Report, at 10.

More specifically, the new building would have a four-story scale and a modern design with angled roof lines and minimal ornamentation other than rooftop plantings. See Staff Report Exhibit C-4; see also, Exhibit 36 – Planting Plan, at 38; see also, Exhibit 36 - Roofing Plan, at 39. The design is akin to an "upscale warehouse" (Staff Report Exhibit A-12, at 9), and Staff Report Exhibit A-3 and Exhibit 45 - Neighborhood Building (at p. 4) show how the exterior design, though modern, reflects existing buildings in the area. In effect, contrary to allegations asserted by various project opponents, the appearance of the proposed building would be both attractive and compatible with the industrial character of the area, consistent with the intent of the General Industrial zones to "promote viable and attractive industrial areas."

Finally, to the extent that a project opponent [Exhibit 35] argues that the proposed use is a "wrong use in the wrong place" or questions the appearance of the proposed venue such that it is inconsistent with the zone and surrounding area, that argument is unsound. As noted above, the proposed use is consistent with the intent of the IG1 zone and surrounding area. In fact, neighborhood industrial buildings are similar to the proposed venue as depicted in [Exhibit 45, at p. 4]. Further, there is extensive evidence in the record demonstrating neighborhood support for the proposed use on the site [Exhibits 12, 27]. There is also extensive evidence in the record demonstrating local industry support for the proposed use on the site [Exhibits 10, 11, 27]. Additionally, the approval criteria in 33.815.215 are specifically for Major Event Entertainment Uses, and PCC Chapter 33.140 Table 140-1 explicitly recognizes that these uses may be proposed as conditional uses in industrial zones which includes the IG1 zone. See PCC Chapter 33.140 (Employment and Industrial Zones) – Table 140-1. Therefore, such contentions should be denied in their entirety.

For the reasons above, the Hearings Officer should find that this is criterion is met.

C. Benefit. Public benefits of the proposed use outweigh any impacts that cannot be mitigated;

Response: The Applicant has identified several public benefits from the proposal (Staff Report Exhibit A-12, at 9). The proposed use will operate largely outside of the hours of operation of the nearby businesses, with the exception of nearby hotels, bars, and restaurants which will likely benefit from the increased after-hours business activity. The proposed development is expected to produce public benefits in large part because its higher level of activity will likely reduce the presence of discarded waste, abandoned cars, crime, and illegal camping, all of which have recently been observed in the vicinity. Additionally, the development will

be accompanied by public infrastructure improvements surrounding the block, which will improve the safety and security of the pedestrian environment for people who live and work in the district. Staff Report Exhibit A-12, at 9; see also, Exhibit 16.

As further reflected in the Economic Impacts Analysis, the proposed use also provides extensive public benefits that positively contribute to the Central City. See Exhibit 36, at 4-37. As described in detail in the analysis, these benefits include: new employment, payroll, spending with local vendors on construction and operations, new tax revenue, and indirect and induced economic activity to the surrounding area. *Id*.

Further, the only "impact" are the amount of trips the site generates, as summarized in the TIS. Mitigations are summarized in the TIS and transportation and parking demand management (TDM) and include public frontage improvements and TDM methods. See Staff Report Exhibit A-10, Section 1. There are simply no impacts that cannot be mitigated. In fact, as expressly found in the Staff Report, there are no identified negative impacts from the proposed use that cannot be mitigated. Exhibit 5, at 11. As noted above, the venue would largely operate outside the hours of operation of most businesses in the industrial area, and as stated in the findings above for criterion A, public services, including the transportation system, are adequate to accommodate the proposed use.

Project opponents present novel and expansive interpretations of the conditional use standards. Such interpretations focus on the "benefit" standard at 33.815.215.C, which states "Public benefits of the proposed use outweigh any impacts that cannot be mitigated." The thrust of opponent arguments is that the Hearings Officer should interpret the phrase "any impact" as broadly as possible to include their misgivings about the future economic impacts on unspecified other venues from speculative business practices by the affiliated companies of the operator of the proposed venue. To articulate this overbroad interpretation is to reject it.

Such an overbroad interpretation is inconsistent with the purpose of the Major Event Entertainment conditional use standards, which is to ensure that the impacts of such uses "are not harmful to surrounding areas and that transportation services are or will be sufficient to serve the use." PCC 33.815.215. Impacts to the surrounding area and transportation services are typical land use standards applying a geographically constrained analysis related to land use impacts such as noise, light, traffic, etc. In contrast, opponents would interpret the criteria to regulate uncertain economic outcomes that would occur at an unknown time and place. The Hearings Officer should decline to extend the conditional use standards in such a fashion.

Finally, a project opponent (Exhibit 35) contends that there no public benefits that flow to industrial uses and such use improperly develops an industrial lot as a non-industrial use. These contentions are simply misguided. As an initial matter, without the proposal, the lot would remain vacant and unproductive as it has been since July 2007, and would continue to consist of unimproved roads. See Exhibit 45, at 1-2; see also Exhibit 48. With the proposal however, as noted above, the proposed use provides extensive public benefits to the surrounding uses and area including public infrastructure improvements and benefits to local industry activity (e.g. employment, income, or business revenues). Exhibit 36, at 4-37; see also, Exhibit 16.

In fact, as prioritized in the Governor's Central City Task Force and the Mayor's Central City Recovery Plan, uses like the proposed venue use will revitalize the Central City by generating

more activation points and increased foot traffic. See Exhibit 47; see also, See Exhibit 36, at 4-37. Specifically, the proposed use addresses the many challenges facing Central City Portland in the wake of the COIVD-19 pandemic by increasing "activation and reconnection" (especially in previously vacant spaces), which is a priority identified by the Task Force. The proposed venue use also specifically aligns with the goals outlined in the Central City Recovery Plan, which also prioritizes immediate impact actions like "generating more events and public activations." Exhibit 47, at 57, 60-61.

Further, project opponents appear to argue that the proposed venue use is not consistent with industrial uses and that a Major Event Entertainment use should not meet approval criteria because it is not an industrial use in the industrial zone. Exhibit 35. Such contentions should be denied as a matter of law. Per code, all employment and industrial zones in the City conditionally allow Major Event Entertainment uses. See PCC Chapter 33.140 (Employment and Industrial Zones) – Table 140-1. Specifically, as reflected in PCC Chapter 33.140 Table 140-1, major event entertainment uses are allowed as conditional uses in the IG1 zone. Furthermore, as explained above, the proposed use will not hinder any nearby industrial uses as the proposed use will predominantly operate outside of the hours of nearby industrial uses. Thus, these contentions should be denied in their entirety.

Accordingly, because there are no negative impacts identified that cannot be mitigated and which public benefits must outweigh, the Hearings Officer should find that this criterion is not applicable.

D. In the campus institutional zones. These approval criteria allow Major Event Entertainment facilities to be part of an institutional campus. They also ensure that the impacts of the facility on nearby areas are mitigated and that affected neighbors have an opportunity to comment on the proposals for mitigation. The approval criteria are:

1. *The facility is to be established as part of a school or college. Such facilities are prohibited as part of a medical center campus;*
2. *The facility is limited to events that feature the athletic or performance skills of students, faculty or staff or which supplement the institution's programs;*
3. *In the IR zone the facility is listed in the mission statement as part of the institution's impact mitigation plan;*
4. *In the IR zone the mitigation activities completed to implement the impact mitigation plan are adequate to mitigate for the expected impact of the facility. The location chosen and mitigation measures used are consistent with the institution's approved impact mitigation plan; and*
5. *All approved limited uses and major event entertainment uses in aggregate occupy 30 percent or less of all campus net building area including portions of parking structures associated with these uses. If the institutional campus includes structured parking, 250 square feet of the structured parking will be associated with the major event entertainment facility for each parking space associated with the facility. Size exceptions are prohibited.*

Response: This site is not in a campus institutional zone, thus these criteria are not applicable to the Application.

III. Adjustments Review

The Application requests two adjustments:

- To reduce the minimum number of on-site, Standard A truck loading spaces from 2 (Zoning Code Section 33.266.310.C.2.c) to instead provide loading area partially on-site and partially within SE Main Street right-of-way.

- To reduce the amount of ecoroof area required from 10,872 square feet (total roof area minus allowable exemptions for roof slope greater than 25%, mechanical equipment, and the elevator overrun) to 4,670 square feet (Zoning Code Section 33.510.243.B.1).[1]

The adjustment standards are addressed below.

PCC 33.805.040 – Approval Criteria

A. Granting the adjustment will equally or better meet the purpose of the regulation to be modified; and

Loading Response: PCC 33.266.310.A states the purpose of the on-site loading space requirement:

> "A minimum number of loading spaces are required to ensure adequate areas for loading for larger uses and developments. These regulations ensure that the appearance of loading areas will be consistent with that of parking areas. The regulations ensure that access to and from loading facilities will not have a negative effect on the traffic safety or other transportation functions of the abutting right-of-way."

The Applicant proposes to intermittently utilize a portion of the SE Main Street right-of-way for truck loading. The proposed loading area will accommodate two large trucks simultaneously, consistent with the number of loading spaces required by code (PCC 33.266.310.C.2.c) and the loading area would be as large as would be required by code (PCC 33.266.310.D.1). The loading area will be adequate to serve the proposed venue, and meets all code standards other that being entirely within the site. The record contains no argument or evidence to the contrary. Thus, the purpose of providing "A minimum number of loading spaces … required to ensure adequate areas for loading for larger uses and developments" is equally or better met by the proposed adjustment.

The appearance of the loading areas will be consistent with that of required parking areas. Here, there are no required on-site parking areas, and the proposed loading areas will be visually standard loading areas consistent with required setbacks, and indistinguishable when trucks are not present from other loading areas. Similarly, the Staff Report expressly found that the street would not have the appearance of a loading area or parking area when not in use for truck loading, and using the public street for loading rather than creating a dedicated loading area on-site reduces visual impacts by reducing the amount of pavement area required for the proposal. Exhibit 5, at 12. The record contains no evidence or argument to the contrary. Thus, the purpose of ensuring that "appearance of loading areas will be consistent with that of parking areas" is equally or better met by the proposed adjustment.

[1] The Applicant has revised its Application to increase eco-roof areas from 12% to 43%. See Exhibit 36, at 39.

The Applicant has provided a detailed analysis of loading-related truck movements and traffic control plans to ensure traffic safety and continuous transportation functionality while trucks are loading and accessing the loading area. The TIS includes a traffic control plan illustrating how vehicle, bike, and pedestrian travel will be maintained on SE Main Street during the time that trucks are loading. The final measures and improvements are subject to the public works and angle loading permitting process, but the Applicant has presented feasible plans that achieve the following traffic safety measures:

- SE Main Street remaining accessible to two-way vehicular and bicycle traffic at all times. Even with the largest trucks loading, no less than 21.6 feet of the street will remain usable for vehicles. 20 feet is the standard minimum width to accommodate two-way traffic.

- Full signage and certified flagger support for truck movements to access the loading area.

- Swinging gate that closes the sidewalk and landscape area, directing pedestrians to use the sidewalk on the other side of SE Main Street when trucks are present in the loading area.

[Staff Report Exhibit A-10, at 35-36]. Further, construction of the venue would result in improvements to adjacent rights-of-way resulting in substantial improvement for transportation functionality of the adjacent rights-of-way. The improvements are listed at Table 21 of the TIS and benefit all modes of transportation [Staff Report Exhibit A-10, at 55-56]. Currently, the abutting street improvements do not meet City standards and result in conflicts between modes. Exhibit 48, at pages 2 and 3, show a pick-up truck of a local services provider navigating the current illegal angle parking on SE Salmon and lack of sidewalk improvements resulting in pedestrians in the vehicular travelway.

City staff evaluated and the TIS and concurred with Applicant, finding that the loading area adjustment in this case would not have a negative effect on traffic safety or other transportation functions in the right-of-way, as long as the Applicant obtains and maintains continuous compliance with the appropriate angle loading permit determined by PBOT [Staff Report Exhibit E-2; Exhibit 16].

<u>Ecoroof Response:</u>

PCC 33.510.243.A states the purpose of the ecoroof requirement:

> Ecoroofs provide multiple complementary benefits in urban areas, including stormwater management, reduction of air temperatures, mitigation of urban heat island impacts, air quality improvement, urban green spaces, and habitat for birds, plants and pollinators. The standards are intended to:
>
> - Maximize the coverage of ecoroofs;
> - Allow for the placement of structures and other items that need to be located on roofs; and
> - Support the architectural variability of rooftops in the Central City.

The Applicant agrees with the findings of the Staff Report that the proposed adjustment equally or better meets the purposes of the ecoroof requirement [Exhibit 5, at 12-13].

Since the hearing, the Applicant has modified the ecoroof plans in a manner that furthers meets such purposes.

Specifically, the applicant proposes to increase the square footage of ecoroof provided, going from 2,100 to 4,670 square feet [Exhibit 36, at 39] The applicant has also provided additional analysis of the roof design and area required to meet the ecoroof requirement. The outcome of these modifications has been an ecoroof proposal that meets 43% (i.e. 4,670 sq ft of the required 10,872 sq ft) of the unadjusted ecoroof standards, where it previously met 14% of the unadjusted ecoroof standards (i.e. 2,100 sq ft of 14,617 sq feet).

While 4,670 square feet of ecoroof is proposed over parts of the roof, the long spans of the sloped roof areas are not capable of supporting the weight of additional ecoroof area. See Staff Report Exhibit A-6, at 3. As found in the memorandum by DCI Engineers, an ecoroof area can add up to 1,243,000 pounds, which is 20% increase in mass to the structure. Exhibit 36, at 3. With the structural challenges identified in the memorandum, reducing eco-roof weight on the subject structure as much as possible is recommended to reduce gravity and seismic loads to the structural framing, lateral system, and piles, given the low quality soils and depth of fill. *Id.*

As such, with more eco-roof weight added to the building structure itself, the additional tons in steel and concrete would significantly increase CO2 emissions. In fact, with the proposed adjustment, approximately 222 tons of CO2 emissions generated from additional steel is avoided and 289 tons of CO2 emissions generated from additional concrete is avoided. See Exhibit 47, at 64-65. That amount of avoided emissions is equivalent to driving a typical passenger vehicle for about 1,130,400 miles, an annual electrical use of approximately 90 average American homes, and burning around 1,057 barrels of oil. Exhibit 47, at 66. Such CO2 emissions offset many of the environmental benefits of compliance with the full ecoroof standard, and the air quality purpose of the standard is particularly better met by avoiding such emissions and providing 43% of the required ecoroof.

Further, without this adjustment, construction of an ecoroof would be cost-prohibitive totaling up to nearly $4.2 million to increase the foundation piles and upsize the roof trusses and structural steel elements as found to be necessary to support full ecoroof compliance by DCI Engineers [Exhibit 36] and as demonstrated in the cost analysis prepared by Colas Construction [Exhibit 38]. Therefore, the proposed adjustment meets the overall purpose of the eco-roof requirement by maximizing the amount of ecoroof that can be provided without over-engineering the building so as to be economically infeasible.

Additionally, with this adjustment and as found in the Staff Report, the proposed building design illustrated in Applicant's Exhibit C-4 would be unique in the area, supporting architectural variability as noted in the purpose statement above [Exhibit 5, at 13]. The Application creates meaningful, complementary benefits that are intended to be provided by ecoroofs in the purpose statement above. *Id*. Besides the 4,670 square feet of ecoroof area, Applicant also proposes the following:

- 1,500-square-foot stormwater planter on the south side of the building that exceeds the stormwater management requirements for ecoroof area (Exhibit 36, Floor Plan – Roof; Exhibit 36, Planting Plan);

- Stainless steel cables would allow plants to climb toward the roof (Staff Report Exhibit C-4); and

- Planting of new street trees adjacent to the site (Staff Report Exhibits C-1 and E-8).

With these features, the site would be much greener than it is currently and would appear greener than typical for sites in the industrial area. While most of the new greenery does not qualify as ecoroof area under PCC 33.510.243.B.2, all the new plants and trees will reduce stormwater runoff, improve air quality, mitigate heat island impacts, and provide habitat for birds and insects. The stormwater management requirements for the site will be fully met (Staff Report Exhibit E-1), and the landscaping plan for the ecoroofs and the other planters includes several plant varieties known to attract pollinators (Staff Report Exhibit A-8, at 14-15); thus, the proposed ecoroof design equally meets these goals. See also, Exhibit 36, Roof Floor Plan; and Exhibit 36, Planting Plan. The planters would utilize a geocell grid to prevent soil erosion, and that plantings would be denser than typical. Staff Report Exhibit A-12, at 16. The Applicant also previously submitted an operations and maintenance plan that would promote the long-term success of the planters (Staff Report Exhibit A-11). Again, without these green features, the lot would continue to be a vacant, un-vegetated combination of paving and gravel [Exhibit 45, at 1; Exhibit 48]. Thus, with these measures, the proposed adjustment will exceed the purpose of the eco-roof standards.

Furthermore, the roof will consist of Thermoplastic Polyolefin (TPO) roofing material for heat island reduction. See Exhibit 36, at 2. Specifically, un-planted roof areas would be white TPO roof material. As evident by Applicant's Exhibit 36, such roofing materials have highly reflective properties that effectively reflect solar radiation to reduce heat island impacts. *Id*. In effect, the proposed adjustment would meet the purpose of the eco-roof standards by reducing heat islands and air temperatures.

For all these reasons, the purposes of the ecoroof standards are better met by the proposed adjustment.

B. If in a residential, CI1, or IR zone, the proposal will not significantly detract from the livability or appearance of the residential area, or if in an OS, C, E, I, or CI2 zone, the proposal will be consistent with the classifications of the adjacent streets and the desired character of the area; and

Response: Since the site is in an industrial (I) zone, the adjustments must be consistent with (1) the classifications of adjacent streets; and (2) the desired character of the area. The Applicant agrees with the findings of staff that the proposal complies with this criterion [Exhibit 5, at 13-16] and provides additional reasons explained below.

1) Street classifications:

The adjustment to the loading requirement would allow SE Main Street, which is classified as a Freight District Street, to be used for truck loading for this development. PBOT is supportive of this request. Staff Report Exhibit E-2; see also, Exhibit 16, at 5-6. PBOT noted that truck loading has been traditionally accommodated in the right-of-way in this area, and that with continuous compliance with a PBOT-approved loading permit, negative impacts on streets adjacent to the site are not expected. *Id*.

The adjustment to the ecoroof requirement affects only the interior of the site and would have no impact on travel demand or the function of adjacent streets. With the condition of approval recommended by PBOT for the Angle Loading Permit, the Hearings Officer should find the proposal is consistent with the adjacent street classifications.

2) Desired character of area:

"Desired character" is defined in PCC Chapter 33.910. Pursuant to this definition, the desired character for this site is determined by:

- the character statement for the IG1 zone
- the purpose statement for the Central City Plan District
- the Buckman Neighborhood Plan
- the Central City 2035 Plan

As identified in the statements and plans above, the desired character area for this site are addressed in detail below.

IG1 zone
The character statement for the IG1 zone is in Zoning Code Section 33.140.030.C:

> *The General Industrial zones are two of the three zones that implement the Industrial Sanctuary map designation of the Comprehensive Plan. The zones provide areas where most industrial uses may locate, while other uses are restricted to prevent potential conflicts and to preserve land for industry. The development standards for each zone are intended to allow new development which is similar in character to existing development. The intent is to promote viable and attractive industrial areas.*
>
> *1. General Industrial 1. IG1 areas generally have smaller lots and a grid block pattern. The area is mostly developed, with sites having high building coverages and buildings which are usually close to the street. IG1 areas tend to be the City's older industrial areas.*
>
> *2. General Industrial 2. IG2 areas generally have larger lots and an irregular or large block pattern. The area is less developed, with sites having medium and low building coverages and buildings which are usually set back from the street.*

The new building would cover most of the lot and would be close to each of the abutting streets, and as discussed above in the Conditional Use Review findings under PCC 33.815.215.A, the quality building design would be compatible with nearby development and contribute to a more attractive industrial area more appealing to other uses including industrial. Thus, the Hearings Officer should find that the Application is consistent with the character intended for the IG1 zone, and that neither of the adjustment requests would detract from this character.

Central City Plan District
The purpose statement for the Central City Plan District is in Zoning Code Section 33.510.010:

> *The Central City plan district implements the Central City 2035 Plan. The regulations address the unique role the Central City plays as the region's premier center for jobs, health and human services, tourism, entertainment and urban living. The regulations encourage a high-density urban area with a broad mix of commercial, residential, industrial and institutional uses, and foster transit-supportive development, pedestrian and bicycle-friendly streets, a vibrant public realm and a healthy urban river.*

A new concert venue for 3,500 spectators at this location would broaden the use mix in the Central Eastside and reinforce the Central City's role as the premiere location in the region for entertainment and tourism. The location is easily accessible by multiple transit lines, and pedestrians and cyclists can easily access the site from the nearby Eastside Esplanade as well as from the neighborhood street grid. Neither of the Adjustment requests would detract from the purpose of the Central City Plan District.

Furthermore, as reflected in the Economic Impact Analysis (Exhibit 36, at 4-37), the proposal positively impacts and contributes to the Central City. These positive impacts include new employment, payroll, spending with vendors on construction and operations, new tax revenue, and indirect and induced economic activity as desired by the Central City 2035 Plan. *Id*.

Thus, the Application is consistent with the purpose statement for the Central City Plan District.

Buckman Neighborhood Plan
As identified in the Staff Report, the following objectives from the Buckman Neighborhood Plan are relevant for purposes of this Application:

> *Objective 1.6. Support planning and design of new developments that enhance neighborhood livability.*
>
> *Objective 1.7. Promote the development of a clear identity for commercial nodes on Burnside, Belmont/Morrison, Hawthorne and the Central Eastside.*
>
> *Objective 5.1. Control neighborhood traffic and parking to ensure safety and livability for neighborhood residents.*
> *Objective 5.2. Encourage alternatives to automobile use.*
>
> *Objective 5.10. Discourage trucks from blocking the streets when loading and unloading, except in the designated truck zone.*
>
> *Objective 6.16. Encourage visual, literary, and performing arts to thrive in Buckman.*
>
> *Objective 7.2. Encourage pedestrian-oriented commercial development.*

Here, the proposal would create a new destination and amenity in the Buckman Neighborhood, support the performing arts, and contribute to a higher profile for the Central Eastside. Since the concert venue would be several blocks from residential areas, impacts on neighborhood livability are minimal.

The development would have a pedestrian-oriented design with the building facades close to the street lot lines, improved public sidewalks, and no on-site motor vehicle parking. In fact, PBOT found that street parking in the vicinity would be adequate to support the development, and PBOT also recommended a condition of approval to require compliance with a transportation demand management (TDM) plan to limit single-occupancy vehicle trips associated with the proposed use. Staff Report Exhibit E-2; see also, Exhibit 16.

The adjustment to the loading requirement would allow trucks to partially, but not fully, block SE Main Street when loading or unloading, but only within a designated, PBOT-approved truck loading area. As recommended by PBOT, the Applicant will obtain an approval of and comply with an appropriate permit as determined by PBOT to prevent truck loading from significantly impacting the functions of the public right of way in SE Main Street. Staff Report Exhibit E-2; see also, Exhibit 16.

Project opponents argue that the Objective 5.10 cannot be met. However, the loading proposal is consistent with objective 5.10 because loading in the street is limited to the portion of SE Main Street within the proposed loading area. In short, the loading area is the designated truck zone.

Central City 2035 Plan
As identified in the Staff Report, the following statements from the Central City 2035 Plan are relevant for purposes of this Application:

> *Goal 1.A. Portland's Central City is the preeminent regional center for commerce and employment, arts and culture, entertainment, tourism, education and government.*
>
> *Policy 1.1. Regional image. Strengthen the roles of the Central City and Willamette River in enhancing a positive image for the city, region and state.*
>
> *Policy 1.4. Tourism, retail and entertainment. Expand upon activities in the Central City that support tourism and complement economic success, vibrancy, and livability, with a special focus on retail, cultural events and institutions, public spaces, arts and entertainment, urban design, and transportation.*
>
> *Policy 1.CE-1.a. Industrial center. Protect the Central Eastside as a centralized hub of industrial businesses and services that support the regional economy by serving other industrial districts and businesses located throughout the Portland metropolitan area.*
>
> *Policy 3.16. Loading. Support the delivery of goods in the Central City. Pursue strategies that bring new ways of delivering goods to the Central City in a way that optimizes loading and freight access and makes efficient use of limited urban space.*
>
> *Policy 5.6. Distinct and vibrant districts. Enhance the existing character and diversity of the Central City and its districts, strengthening existing places and fostering the creation of new urban places and experiences.*
>
> *Central Eastside 2035 Vision. The Central Eastside is a large, multimodal and vibrant employment district where existing industrial and distribution businesses*

continue to thrive while the district's job base grows and diversifies to attract new and emerging industries.

The new investment on this site would broaden the use mix in the Central Eastside, reinforce the Central City's role as the region's premiere location for entertainment and tourism, and support a positive image of the city as a vibrant, healthy community. The venue will activate a site that has been vacant, and an area where restaurant and retail uses will benefit from the influx of venue patrons.

Since the site is at the edge of the industrial area, and since the concert venue would operate in the evenings, the proposal would not significantly impact neighboring industrial businesses, which operate primarily in the daytime.

The adjustment to allow truck loading from the SE Main Street right-of-way is supported by PBOT (Staff Report Exhibit E-2 and Exhibit 16) and would make efficient use of urban space by avoiding the need for a separate truck loading area on-site. For these reasons and as expressly found in the Staff Report, the Hearings Officer should find the proposal is consistent with the Central City 2035 Plan.

For the above reasons, this criterion is met.

C. If more than one adjustment is being requested, the cumulative effect of the adjustments results in a project which is still consistent with the overall purpose of the zone; and

Response: PCC 33.140.030.C describes the purpose of the IG1 zone:

> "The General Industrial zones are two of the three zones that implement the Industrial Sanctuary map designation of the Comprehensive Plan. The zones provide areas where most industrial uses may locate, while other uses are restricted to prevent potential conflicts and to preserve land for industry. The development standards for each zone are intended to allow new development which is similar in character to existing development. The intent is to promote viable and attractive industrial areas…"

The new building would cover most of the lot and would be close to each of the abutting streets, and the quality building design would contribute to a more attractive industrial area. The proposal is therefore consistent with the purpose statement above. In particular, the adjustment for loading will allow the required number of loading spaces in a more urban setting, which is quite typical within the Central Eastside industrial area. See Staff Report Exhibit A-12, at 17; see also, Exhibit 16. Further, as in the present instance, being located in the Central Eastside Industrial Sanctuary, truck loading has historically been accommodated in the ROW with review from PBOT via a loading permit as determined by PBOT or equivalent. Exhibit 16, at 5-6.

The ecoroof adjustment will allow for less ecoroof coverage than required, but the proposal includes several unique and innovative green design features, including partial eco-roofing combined with stormwater facilities to meet the purpose of the standard as noted above. See Exhibit 36 – Email from Doug Sheets, at 2; Exhibit 36 – Planting Plan, at 38; Exhibit 36 – Eco-roof Area Plan, at 39. Thus, whether considered individually or cumulatively, the effects of the adjustments do not detract from the proposal's consistency with the purpose of the IG1 industrial zone.

Ultimately, the proposed venue will have trip peak hours that do not overlap with peak hours for industrial uses in the Central Eastside, presenting a low-conflict means to benefit the existing restaurant and retail operations in the neighborhood and surrounding areas.

For the above reasons, this criterion is met.

D. City-designated scenic resources and historic resources in Historic, Conservation and National Register Districts and within the boundaries of Historic, Conservation and National Register Landmarks are preserved; and

Response: City-designated scenic resources are identified on zoning maps with an "s," and historic resources are identified either with a dot or as being within the boundaries of a Historic or Conservation district. Because there are no scenic resources or historic resources mapped on the subject site [Staff Report Exhibit B], this criterion is not applicable.

E. Any impacts resulting from the adjustment are mitigated to the extent practical; and

Response: The adjustment to the requirement for an on-site loading area is mitigated by the proposed loading area within the SE Main Street right-of-way [Exhibit 5, at 17; Staff Report Exhibit A-12, at 18; Exhibit 16, at 5-6]. Although off-site loading areas do not count toward the loading requirements, the proposed loading area would be adjacent to the building's loading and staging room [Staff Report Exhibit A-8, at 2] and would meet the dimensional requirements that would apply to an on-site loading area (33.266.310.C.2.c and 33.266.310.D.1). The proposed loading area effectively provides equivalent loading area and capacity to that required by the loading requirements of 33.266.310, and mitigating the impact of providing fewer on-site loading areas.

Another impact is that when trucks are loading, a portion of the SE Main Street right-of-way will be blocked. To mitigate this impact, the Applicant proposes various measures to ensure that SE Main Street will be safe and functional for all modes of transportation. The TIS includes a traffic control plan illustrating how vehicle, bike, and pedestrian travel will be maintained during the time that trucks are loading. The final plans and improvements are subject to the public works and angle loading permitting process, but SE Main Street will:

- Be accessible to two-way vehicular traffic. Even with the largest trucks loading, no less than 21.6 feet of the street will remain usable for vehicles. 20 feet is the standard minimum width to accommodate two-way traffic.

- Reduction to on-street parking on the southern side of SE Main.

- Full signage and certified flagger support for truck movements to approach the loading area.

- Swinging gate that closes the sidewalk and landscape area, directing pedestrians to use the sidewalk on the other side of SE Main Street when trucks are present in the loading area.

[Staff Report Exhibit A-10, at 35-36]. Impact of the loading adjustment is further mitigated by the dead end nature of vehicular traffic on the section of SE Main Street west of SE Water

Avenue and all adjacent lots being vacant. The vehicle trip counts are substantially lower than a comparable through street [Staff Report Exhibit A-10].

The adjustment to the ecoroof requirement reduces the square footage of ecoroof coverage. This adjustment is mitigated by Applicant's use of a cool white roof for heat island reduction. Exhibit 36, at 2. Further, the proposed plans satisfy the on-site stormwater management requirements with the proposed ecoroof area, thus mitigating any reduction in stormwater benefits associated with a larger ecoroof area.

Accordingly, the Hearings Officer should find that any potential impacts of both adjustments are mitigated to the extent practical and that this standard is therefore met.

F. If in an environmental zone, the proposal has as few significant detrimental environmental impacts on the resource and resource values as is practicable

Response: Environmental overlay zones are designated on zoning maps with either a "p" (Environmental Protection overlay zone) or a "c" (Environmental Conservation overlay zone). Because there are no environmental overlay zones mapped on the subject site (Staff Report Exhibit B), this criterion is not applicable to the Application.

IV. Response to Issues Unrelated to Approval Criteria

A. Venue Operator

The City is not tasked with approving the venue operator, only the venue. Project opponents make various arguments about the business practices of the proposed operator of the proposed venue [Exhibits 13, 18, 25, 26, 31, 32, 33, and 35]. Those arguments are inapposite to this land use review and thus are not worth repeating here. Ultimately, the Hearings Officer need not engage in this line of argument because it is unrelated to any applicable approval criteria.

The Hearings Officer can similarly discount arguments that the operator is inherently part of the use and therefore part of the review [Exhibit 35, at 11]. This argument is unmoored from the language of the code, which is clear that the use being proposed is Major Event Entertainment, which is agnostic of the operator (public, private, large, or small). PCC 33.920.230. Demonstrating the point is that the application is not dependent on the proposed venue operator being the operator and should the lease end or be terminated, the owner could contract with a new venue operator. Another variation on the theme is the argument that the physical venue is designed so that only the proposed venue operator could ever operate the venue [Exhibit Exhibit 35, at 11]. No specific design elements supporting this argument are identified. The Applicant has provided a comparison of the floor plan of the proposed venue with that of an existing and planned venue of comparable size, both with a different operator [Exhibit 46]. This comparison shows that the design elements and layout of the proposed venue is typical for similar sized venues and is not operator specific. *Id*.

B. No Public Subsidy

Project opponents assert that the proposed venue is reliant on receiving a public subsidy [Exhibits 35 and 43]. This is incorrect. The property will be sold to Applicant for fair market value and no public funding is being provided for construction or venue operations.

Accordingly, assertions that the conditional use standards be applied differently based on the existence of public subsidy need not be addressed by the Hearings Officer.

C. Untimely Submittals

Project opponents submitted new evidence during the second week of the post-hearing open record (7.17.24 to 7.24.24), after the deadline established for such evidence by the Hearing Officer for such evidence. Specifically, Exhibit 41 constitutes new evidence that is not responsive to evidence submitted during the first week of post-hearing open record (7.10.24 and 7.17.24). Exhibit 41 is an analysis of the TIS, which was an exhibit to the Staff Report and has been in the record since May. The Applicant submitted no transportation-related evidence during the first week of the post-hearing open record period. Accordingly, the Hearings Officer should reject Exhibit 41 as untimely filed and decline to include it in the record.

However, should Exhibit 41 be included in the record, please note that it contains no independent analysis or new data. Rather, it is comprised of a traffic engineer's generalized statements of agreement with argument presented by a non-expert in Exhibit 35.

D. Other ecoroofs. A project opponent contends that the proposed eco-roof design could do more because there are examples of larger eco-roofs on similar venues in other places [Exhibit 30]. First, this contention does not relate to any approval standard, and this review is based solely on the design of the proposed building—not other buildings. Second, the identified buildings in Exhibit 30 are not comparable to the proposed venue for various reasons. These buildings are significantly larger in size, budget, and scale, and have dramatically differing geotechnical considerations [Exhibit 37, at 10]. In sum, the passing references to other venues does not result in a meaningful comparison of site and design comparisons for the proposed venue.

V. Conclusion

For the above-stated reasons, the Application meets all applicable approval standards and criteria. The Applicant respectfully requests that the Hearings Officer approve the Application.

To whom it may concern:

I want to voice my concern about a Live Nation music affiliation as a concerned citizen and community organizer in Portland.
Portland is at a crossroads for our music scene. I love how independent and local our scene is here and support our local artists and venues as much as possible, and have since moving here in 2009. LiveNation/Ticketmaster is known across the country for price manipulation and for icing out smaller venues. I understand that the City has given a permit to use City owned land to build a venue. This is the last thing that a local music scene still recovering from the pandemic needs. MusicPortland.org has been a big piece of the backbone of the music community here, and they have a ton of good ideas on how we can improve and uplift local music and bring in touring acts without letting a monopolistic corporate giant such as Live Nation/Ticketmaster into our community. As a citizen who has enjoyed the beautifully local and organically grown music scene in this town for over a decade, I am hopeful that we can see this permit overturned.

Thank you,
Leah Maurer

	Agenda Item	Name or Organization	Comments	Attachment	Created
88	812	Peter Walden, board member of Russell Neighborhood Association and member of Portland musicians union	There is no way that permitting Live Nation to barge into East Portland will benefit our city in the long term. Please know that we voters of Portland are deeply invested in a sustainable future for local our music industry that upholds local businesses and local developers. Farming our valuable resources but to a corrupt corporation like Live Nation is a selling out of Portland wealth, and your Portland constituents. Under no circumstances should you allow this development to move forward.	No	09/18/24 1:50 PM
89	812	Kate Sunderland	I support the appeal to prevent LiveNation from building a venue in Portland. Their plan for this venue endangers the local music scene and local music venues. LiveNation has a history of choking out smaller venues and damaging the local music scene. Austin, Chicago, Nashville, and many other cities have experienced this destruction. LiveNation has bought out competing venues and closed them, they have subdivided their venues to direct artists to perform there, rather than at a smaller local venue, has pressured local venues to use LiveNation/Ticketmaster software, and other intentially harmful actions. LiveNation is infamous for monopolizing cities' music scenes and damaging local business owners and venues. The people of Portland do not want this to happen to our city. Portland has a proud independent music scene and LiveNation endangers this beloved aspect of portland culture and community. Do what is right for Portland, its artists, venues, and music community. Do not allow LiveNation to build in Central Eastside.	No	09/18/24 1:53 PM
90	812	Michael Taylor		Yes	09/18/24 1:58 PM
91	812	Kallista Mason	As a perpetual concert goer, I love how Portland offers such a variety of venues. The best part, most of the venues don't associate with big ticket conglomerates like Live Nation, making tickets more affordable. I wouldn't be able to enjoy as many shows as I do if prices start hiking from "fees". Help keep the money local and stay away from Live Nation!	No	09/18/24 2:14 PM
92	812	Bridgid Blackburn		Yes	09/18/24 2:59 PM

Wednesday, September 18, 2024

Dear council members,

My name is Mike Taylor, and I oppose this appeal. I have lived in and worked in the Portland music business for over 25 years. I would have loved to have been able to speak to you in person tonight, and physically show my support but I am currently working as the production manager at a major venue in the PNW for a show this evening.

I have worked at most venues in Portland including Roseland Theater, Crystal Ballroom, Wonder Ballroom, Aladdin Theater, Keller Auditorium, Arlene Schnitzer Concert Hall, Veterans Memorial Coliseum and Moda Center. I have also worked for every major promoter in Portland including Mike Thrasher Presents, Double Tee, Monqui Presents, True West, Portland 5, AEG and Live Nation over the span of the last 22 years. If anyone knows we need a larger, up to date and sustainable venue here, it's me.

My job as a Production Manager and Promoter Representative is to make sure the artists playing in Portland have all the things they need. Things in Portland I hear about our venues, "the load in is awful, the PA is ancient, the lighting rig is old, this is crazy expensive for the age and state of things in here". Bands are attracted to places where they can do their full shows, hang their shows, use all their lighting, along with places that have friendly and knowledgeable staff. We have the potential to have more bands come through our city, but we need a new room with all the amenities to begin the rebuilding process in our market.

We need a new venue that can accommodate current touring needs. This is an opportunity to have a new space that we as Portlanders can be proud of and it would supply a very attractive new space to popular bands and give us another chance to have bands play here again and grow back our market. As a lifelong music lover and listener AND an active working member of our music community I ask you to deny this appeal and leave in place this land use permit so that we will ALL have a beautiful new venue to share, in an often-overlooked part of our city that is bursting with potential and ripe for something new.

Thank you for your time and consideration.

Mike Taylor
Matoo5320@mac.com

My name is Bridgid Blackburn, I Co-Own Cargo, an independent retailer in Portland for over 28 years. Cargo relocated to the Central Eastside from the Pearl District 11 years ago, looking to connect with small businesses, we reached out to the Central Eastside Industrial Council (CEIC) to create representation for retail, restaurant, and maker communities. The CEIC encouraged us to form a committee, and the Merchant + Makers Committee was formed over 10 years ago, marking the first time this sector was recognized by the CEIC.

Cargo is located a few blocks from the three vacant lots along Water Avenue and we have a keen interest in the development of the blocks. As such we've been very involved in the planning meeting for the project; attending public meetings, joining the Prosper Portland led Venue Impact Study meetings, as well as the Central Eastside Industrial Council Land Use and Traffic Advisory Committee meetings. We've seen the lengthy process that the local development and construction team has gone through, and the collaborative approach they have taken. We are confident that this is the best plan to secure this much-needed venue for Portland.

The ODOT blocks have been a blight for decades, the location, adjacent to the Eastbank Esplanade and a short walk to OMSI should be the welcoming gateway to our vibrant district. Although we were encouraged when mountains of concrete and asphalt recycling were removed years ago; the lots have remained empty, unimproved, and underutilized for far too long.

During the pandemic, the blocks were used as a temporary transitional houseless space, and it became clear how inhospitable the site is. It's dirty, noisy, void of greenery, and extremely exposed. During the 90-day reset, working with the CEIC and the City to advocate for the houseless community, we helped create a humane barrier around the spaces, to help ensure privacy. This experience illustrated the delicacy of finding the right user for this site. A midsized concert venue manages the land use concerns perfectly, and will be an ideal use for this unique lot and location.

The Central Eastside small business community knows that this project will energize the district, especially our evening use, bringing foot traffic and visitors to the city's Central Core in this highly visible location.

We believe in this project, and we see a brighter future for Portland once the venue is completed and activated.

	Agenda Item	Name or Organization	Comments	Attachment	Created
93	812	Dennis Osterlund CEO, Optimizing Systems	Dear Mayor & Commissioners I am asking you to support Local businesses and reject Live Nation's attempt to dominate the local music scene. As you know, Monqui is planning a desperately needed improvement to the Lloyd Center. This location has parking, public transportation and will boost a center that desperately needs one. Allowing Live Nation's plan to move forward will likely kill the Lloyd Center proposal and significantly impact local businesses like Monqui. As you consider the impacts to infrastructure, it's important to highlight the broader concerns that we have as Portlanders. The community has zero confidence this venue will serve the public good without imposing significant risks. Significantly increasing traffic on already congested roads along a busy train route and overwhelming an area with very little capacity for parking cannot be ignored or half-heartedly addressed with conditional approval. No one looking at these issues objectively can possibly vote to approve this project. According to the Department of Justice, Live Nation has harmed local music industries nationwide. The recent Department of Justice lawsuit, supported by 30 state attorneys general, exposes how Live Nation's monopolistic practices prioritize corporate interests over community values. Live Nation inflates ticket prices and stifles opportunities for local artists and venues through exclusive contracts and retaliatory tactics. Based on this, we believe that allowing Live Nation to establish a venue in our city would be a disaster, undermining the independent music scene we cherish while also creating public safety and logistical nightmares. This move is a blatant betrayal of Portland residents' best interests. Why is the City of Portland proposing to subsidize what the US Dept. of Justice has accused of being one of the most profitable, predatory corporations in the music industry to destroy our local, independent music scene? I urge you to oppose this deal - both the land use, and all City of Portland support for the deal! Sincerely, Cheers, Dennis Osterlund CEO & Chief Consultant 503.771.8597 (P) 503.957.8864 (M) Osterlund@OptimizingSystems.com	No	09/18/24 3:22 PM
94	812	Esa Hall	Recently I had the opportunity to go to The Gorge, a venue owned by Live Nation. It sucked! The price of parking ($120) and food ($20 for a corn dog) were extortionate. The attitude and business practices of Live Nation affects the culture and interactions of the people participating in events at their venue. Hierarchies are evident in those that can afford a more expensive ticket vs those that can not, or those that can afford a fast pass vs those that can't. It makes things less fun, it makes socializing less cohesive, which is exceptionally important post-covid. Currently, Portland has a beautiful music scene. Please don't let Live Nation, a company that clearly takes advantage of people and favors profit over all, fuck up what makes Portland beautiful.	No	09/18/24 4:11 PM
95	812	The Domestics	Portland is one of the last vestiges of truly local music venues and bringing Live Nation into the mix would be detrimental to local businesses and musicians.	No	09/18/24 4:41 PM

	Agenda Item	Name or Organization	Comments	Attachment	Created
96	812	Sesame Collective DBA Shalom Y'all	Hello there! At Shalom Y'all, we're thrilled about the opportunity to bring a dynamic music venue to our neighborhood—and we know it's a game changer for Portland! As operators of multiple spaces across the city, we've witnessed firsthand how events like Blazer and Timber games can significantly boost local businesses. Investing in arts and entertainment is crucial for revitalizing Portland, and this venue would be a powerful catalyst for that change. Imagine the vibrant atmosphere it would create, driving traffic to surrounding businesses and solidifying Portland's reputation as a music hub. We've seen too many incredible artists head to Seattle and Bend, and this venue could be the key to keeping them right here in our city! Let's work together to stimulate the Downtown and Eastside Portland economy and create a thriving arts scene that benefits us all. Thank you for considering this exciting opportunity! Best, Kasey Mills Shalom Y'all	No	09/18/24 5:19 PM
97	812	Alex Little		No	09/18/24 5:39 PM
98	812	Sarah Newlands	I support the appeal, which means I disagree with the decision to approve a new concert venue in the Central Eastside.	No	09/18/24 6:45 PM
99	812	Oved Valadez	To the city of Portland, In short , I OPPOSE the appeal, and agree with the decision to approve a new concert venue in the Central Eastside. My name is Oved Valadez. I am the founder of Industry Creative, and industry one foundation . Over the past 4 years we have been working tirelessly to revitalize and reposition Portland as a creative capital in America . Our goal is to foster positive awareness, jobs , and tourism using the power of creativity to inspire the world . Most recently we have been working with Travel Portland , Port of Portland , and editorial companies world wide to make sure Portland is perceived and experience as the amazing city it is. We as INDUSTRY and me as an individual support and are extremely excited about a venue for the Central Eastside for the following reasons . - we believe it will bring awareness and tourism the city desperately needs . this venue will help attract larger national tours that the Portland region is missing out on and will create more opportunities for local artists and promoters. - the Venue will stimulate Central Eastside, this current area has needed an attraction for years. We believe this will revitalize local business, and future businesses in the area. More so stimulate job growth and spend . -There are no public funds being used to develop this project. Very important . - the two companies involved are fully invested in the well being of the city . Portland-based Beam Development and Colas Development Group, two second-generation, family-owned companies, are leading the project. - Bean and Colas have been very collaborative in involving the diverse community and leaders to make the right decisions . - In our experience with independent and at scale entertainers , we strongly believe both acts and venues will stimulate each-other. Co-exist in making Portland the legendary creative music city it is. This time with some scale . Ultimately , we are very excited about the venue . And will be involved in creating the excitement it deserves . Sincerely Oved Valadez	No	09/18/24 7:55 PM
100	812	Matthew Curran	I support the appeal. I am an avid concert goer and this will only make things more financially predatory. Please do not let live nation ruin our music scene.	No	09/18/24 8:07 PM

	Agenda Item	Name or Organization	Comments	Attachment	Created
101	812	James Dalton	Portland would be gutting it's own culture and heritage by bringing Live Nation in to pollute the city.	No	09/18/24 9:24 PM
102	812	Zane	Please don't allow the Live Nation monopoly ruin the flourishing music scene/economy in this city. Financially accessible music makes Portland, Portland.	No	09/18/24 9:47 PM
103	812	Vinyl on Demand	No to Live Nation Venue	No	09/18/24 10:02 PM
104	812	Carol A. Herzog	To the Honorable City Council members: I am writing to urge you to halt the progress on the Live Nation proposal. It would be detrimental to small live music venues in Portland if this proceeds. As an avid concert-goer, I do not believe the Ticketmaster/LiveNation monopoly is beneficial to either musicians or their fans. Thank you for your consideration.	No	09/18/24 10:03 PM
105	812	Paul Troiano	I oppose the appeal to this land-use application, and so should any advocate for musicians, tourism, hospitality and economic development in Portland. Our local music ecosystem can take advantage of this growth opportunity and evolve from a solid local & regional scene to powerful national music destination city. Both Austin & Nashville are examples of this type of evolution. In both cases, among others, large multi-national music corporations invested locally, and the net results are growing, vibrant music scenes that significantly increase the number of opportunities for local artists and businesses across multiple sectors. The data supports a "rising tide raises all ships" scenario both in other cities and in the economic impact analysis prepared for Prosper Portland regarding this new venue. I understand the fight to protect what we have and to look out for our Portland artists, venues and local music scene. It's an important and necessary fight. Keeping Portland weird means keeping Portland viable & vibrant for artists and cultural arbiters who need to make a living in our city and have access to a growing set of creative and economic opportunities. I have dedicated my career to pursuing the best interests of independent musicians, artists and music entrepreneurs, establishing several music-focused, artist-centric companies in Portland spanning across recording, equipment manufacturing, event listings, live event production, music rehearsal facilities and music licensing. My Portland-based music-licensing company Rumblefish, with the support of Beam and the Malsin family, established its headquarters in the Central Eastside. We created millions of dollars of income for Portland artists and musicians, as well as hundreds of local, music-industry jobs. We did this in large part by tapping into the greater music industry globally to grow our music ecosystem locally. The way for our local music ecosystem to thrive is to embrace the momentum of the greater entertainment industry by opening our doors, being collaborative and becoming the music destination and creative hub that we deserve to be. Look around. Live Nation is already a key member of the local music ecosystem in Portland. They book countless shows at local and regional venues, funnel significant revenue to local service providers who provide support for these shows and now are committing to make a significant investment in a state-of-the-art venue, with a local trusted developer, in a great part of town that will grow our local economy across multiple sectors. Portland shouldn't pass this up. Live Nation has proactively & regularly reached out to myself and other local music industry executives seeking specific details on how to best support the local music community and economy with this new venture. Let's leverage this moment to protect, grow and promote the community that we're all so proud of and passionate about. Let's get this venue built. Let's collaborate with Beam Development and Live Nation and fuel a much-needed economic tailwind for our city, the next great music destination city in America.	No	09/18/24 10:03 PM
106	812	Isa Guragain	My wife and I grew up in the Bay Area and separately grew an appreciation for live music and local venues. The monopoly Ticketmaster and LiveNation have created across this country and world with multi-million dollar venues is disgraceful. Local venues like Aladdin Theater, Crystal Ballroom, and Hawthorne are where artists big and small can thrive economically and creatively. (Ticketmaster/LiveNation) TM/LN financially hemorrhage the artist, the fans, and the city their venues operate in. Multiple consulting firms have conducted geo-economic studies that show the rise in tourism from concerts do not benefit the locality or its citizens. It's great to see places like MODA Center helping fans connect, but TM/LN doesn't repay the cities it operates in. This monopoly is a disaster for everyone involved, and they already own most large venues in the PNW. Don't let them continue to run rampant on the local music scene	No	09/18/24 10:25 PM
107	812	1000 Friends of Oregon		Yes	09/18/24 11:20 PM

Main Office • 340 SE 6th Ave • Portland, OR 97214
Southern Oregon Office • PO Box 2442 • Grants Pass, OR 97528

September 18, 2024

Portland City Council
1900 SW Fourth Avenue Room 2500
Portland, OR 97201

Dear Portland City Council Members:

1000 Friends of Oregon works with Oregonians to advocate for safe, complete, connected communities that enhance the quality of life through land conservation and development. Notably, 1000 Friends of Oregon also enjoys having its headquarters located in the Central Eastside Industrial area. 1000 Friends of Oregon has identified numerous concerns with Live Nation's proposed music venue on SE Water Avenue. **We request that the City of Portland withdraw its support for the project as planned.**

We have repeatedly heard state and local lawmakers call for the need to expand urban growth boundaries across rural working lands for industrial development, despite the availability of underutilized industrial lands within urban growth boundaries across the state. Every non-industrial use of land zoned for industrial development puts farmland and green space at risk of being sacrificed for development that can only occur on these designated lands. Allowing a music venue on industrial land, in an area with infrastructure designed primarily for industrial purposes, is an irresponsible land use decision.

The infrastructure around the proposed site is not designed to accommodate the thousands of people who would be traveling to the venue. Streets designed for freight and industrial business are not suitable for concert attendees. Our transportation infrastructure concerns include the following:

Connectivity to the Eastbank Esplanade. The Central Eastside already suffers from a lack of East-West connectivity to the Eastbank Esplanade, and the proposed use and blocking of the Main Street connection would only further limit these connections. The only people benefitting from this would be a wealthy music industry monopoly at the detriment of people living in and traveling through the area.

Conflicts between visitors, freight, and rail. With the area primarily being designed for industrial uses, the conflicts between people walking, rolling, and driving to the venue, and freight traffic and trains would increase significantly. With a majority of available parking being on the east side of the train tracks, people will regularly be having to cross and therefore interact with freight trains. The crossings have poor pedestrian infrastructure and accessibility, and the whole area lacks adequate lighting. How long will it take before we see fatalities as a result of

(503) 497-1000 • friends.org

these interactions? How often will visitors or emergency responders be blocked by trucks or trains preventing them from getting to and from the venue?

Climate, options, and accessibility. Transportation accounts for 44% of Multnomah County's greenhouse gas emissions. A music venue in the central city should be easy to access via transit, walking, or rolling – our city's climate goals and reality demand it. Instead, the proposed location of this venue would encourage people to drive to access it due to a lack of human-scale transportation infrastructure, no required bicycle parking, and distance and poor connectivity to transit stops. Approximately 30 percent of Oregonians can't or don't drive. Getting to this venue would be incredibly difficult for this part of the population. A lack of transportation options will also be bad for drivers. The freeway off-ramps from I-5, particularly the one that deposits directly onto SE Water Avenue, will be even more congested and unsafe than they already are. The only way to address parking and traffic congestion is to get people out of cars in the first place.

Lastly, the public benefits of the proposed use of this site will not outweigh the negative impacts that cannot be mitigated. Portland is known for its well-loved, independent music scene and venues. Live Nation is known for being an industry monopoly that has harmed local music industries across the country. Allowing that to happen here would cause irreparable damage to Portland's independent music scene.

We request that you address these land use, climate, and safety concerns by withdrawing your support and approval for this proposal.

Sincerely,

Cassie Wilson
Transportation Policy Manager
1000 Friends of Oregon

	Agenda Item	Name or Organization	Comments	Attachment	Created
108	812	John Hatfield	Portland is a creative city comprised of many independent businesses and specifically independent music venues. This culture is our differentiator. This is why people enjoy visiting and living in Portland. It is totally unique within American society. Livenation is not needed in this city. There are other solutions to get a venue this size while keeping out a monopoly. Portland can find a better solution for a venue this size that fits our city's culture.	No	09/19/24 8:03 AM
109	812	Katherine Zipman	I am originally from NY and whenever anyone asks me what I adore about Portland, top of my list is our music scene. I truly believe the independent venues of all sizes allow us to cultivate an exciting scene. Inviting LiveNation in also invites their extensive control to choke Portland businesses, creatives, and musical artists. Yes we do need a large venue as our city continues to grow. Lets work together to find an equitable solution, learning from what LiveNation has done to other cities, to create an equitable solution and exciting way foward.	No	09/19/24 8:09 AM
110	812	CJ Alicandro	Hello Council Members, I am a music consumer living in the Mt Tabor neighborhood and I stand against the Live Nation/Ticketmaster monopoly ruining our world's relationship to live music. Ticketmaster and Live Nation have put so many small and medium-sized venues out of business and made it significantly more difficult for musicians to make enough money to survive. Portland is supposed to be a place where independent artists and musicians can experiment and grow. It's supposed to be a place with interesting and beloved local venues, not soulless corporate buildings. Regardless of whatever financial positives Live Nation has promised, Portland does not benefit from them being here. Thank you for your consideration and, of course, keep Portland weird.	No	09/19/24 8:12 AM
111	812	Seth Kaufman	I support the appeal, which means I disagree with the decision to approve a new concert venue in the Central Eastside. I have been involved in Portland's music scene since I moved to town in 2006. This has included three years on the board of the non-profit PDX Pop Now! This people and vibrancy of Portland's local music scene are legendary. Folks move to Portland because of its music scene. Allowing Live Nation here would kill much of what makes not just the music industry, but Portland itself, so special. As proof that Live Nation are bad actors, the United States Department of Justice, the State of Oregon, and 39 other states and D.C. are suing the company for monopolistic practices. They are demonstrated bad actors, and have been for decades. They break promises, pay the fines, then crush the competition. Letting them into Portland is bad for other businesses, bad for the people who go see shows, and bad for the city.	No	09/19/24 8:59 AM
112	812	Robin Levy	Hi, my name is Robin and I am a professional musician, as well as live events production staff. I moved here 8 years ago from Los Angeles, in hopes of a bright musical future, and in response to the tragedy that has fallen on the Los Angeles music scene at the hands of LiveNation and AEG. These 2 companies singlehandedly have monopolized the live events sector, and allowing them to move into our city and buy city property at under market value, with exemptions to building clauses, is an atrocious use of policy. I love Portland because of it's music scene, and it's general reaction to corporate powers trying to take over what we have built. If you allow this venue to be built, it will be out of blatant disregard for the music community in town, and we as a voting body will hold you accountable in November. Do the right thing.	No	09/19/24 8:59 AM
113	812	Jane Ellen Unger	I support the appeal. A Live Nation venue in Portland creates a dead music scene.	No	09/19/24 8:59 AM
114	812	Jane Ellen Unger	I support the appeal. A Live Nation venue in Portland creates a dead music scene.	No	09/19/24 8:59 AM

Agenda Item	Name or Organization	Comments	Attachment	Created
812	National Independent Venue Association	September 19, 2024 Portland City Council 1221 SW 4th Ave, Suite 240 Portland, OR 97204 Re: Docket LU 23-111784 CU AD (Central Eastside Concert Venue) – September 19, 2024 Dear Members of the Portland City Council: I write on behalf of the National Independent Venue Association (NIVA), the national trade association for independent venues, promoters, festivals, and performing arts centers with more than 1400 independent stages as members. Our stages are the center of live performance in every community, including music, comedy, theater, spoken word, and dance. We urge you to require that the new concert venue planned for the Central Eastside be operated and booked by a local independent promoter or venue operator. Thanks to the tireless efforts of Portland's homegrown independent promoters and venues, national acts and local up-and-coming artists have a place to connect with their fans—and the community has gained an economic and cultural engine. We are disappointed that the City has not been heeding the legitimate concerns of these promoters and venues. Their ability to continue operating in an already challenging industry will be further hindered by the City's eagerness to partner with Live Nation—a publicly-traded, multinational conglomerate being sued by the U.S. Department of Justice and 39 state attorneys general for anti-competitive practices. The City is offering Live Nation significant favorable terms for a Central Eastside concert venue with land the Prosper Portland board has voted to sell them at a fraction of the price it would sell for on the open market—terms rarely extended to independent promoters and venues. The City is giving preferential treatment that poses significant issues for Portland's independent music scene, local businesses, and investment. Local Small Businesses Must Survive: In cities like Austin, Boston, Des Moines, Philadelphia, and more, local governments' embrace of Live Nation has led to challenges for independent venues and artists that have invested in their communities for years. Independent Stages Boost Local Artists: Independent promoters and venues provide essential opportunities for emerging local artists to perform and grow their fan base. Portland's Live Economic Impact Fueled By Homegrown Venues: Local independent operators reinvest in the community by creating jobs, supporting local vendors, and stimulating nearby businesses such as restaurants and retail shops. Keeping the venue under local management ensures that economic spending by local and visiting fans stays within Portland, fostering sustainable growth rather than flowing to investors all over the world. Viable Local Promoter Alternatives to Manage Central Eastside Venue: With a decades-long track record, local promoters have demonstrated they are ready and capable of operating a venue in Central Eastside without compromising Portland's independent spirit. In light of these concerns, we call on the City of Portland to: Require that the new venue be operated by a local independent promoter or venue operator. Protect and nurture Portland's local music ecosystem. Maintain Portland's unique cultural identity and community engagement. Ensure that economic benefits remain within the local community. If the City Council moves forward with this deal in its current form, they are risking the future of independent promoters and venues who have poured their passion, sacrifice, and hard work into building a music scene that is a point of cultural pride and economic development for Portland. We implore you to take immediate action to safeguard Portland's independent music scene and choose to listen to the local small businesses and nonprofits that have served your community for decades.	Yes	09/19/24 9:11 AM

115

NATIONAL INDEPENDENT VENUE ASSOCIATION

September 19, 2024

Portland City Council
1221 SW 4th Ave, Room 340
Portland, OR 97204

Re: Docket LU 23-111784 CU AD (Central Eastside Concert Venue) – September 19, 2024

Dear Members of the Portland City Council:

I write on behalf of the National Independent Venue Association (NIVA), the national trade association for independent venues, promoters, festivals, and performing arts centers with more than 1400 independent stages as members. Our stages are the center of live performance in every community, including music, comedy, theater, spoken word, and dance.

We urge you to require that the new concert venue planned for the Central Eastside be operated and booked by a local independent promoter or venue operator. Thanks to the tireless efforts of Portland's homegrown independent promoters and venues, national acts and local up-and-coming artists have a place to connect with their fans—and the community has gained an economic and cultural engine.

We are disappointed that the City has not been heeding the legitimate concerns of these promoters and venues. Their ability to continue operating in an already challenging industry will be further hindered by the City's eagerness to partner with Live Nation—a publicly-traded, multinational conglomerate being sued by the U.S. Department of Justice and 39 state attorneys general for anti-competitive practices.

The City is offering Live Nation significant favorable terms for a Central Eastside concert venue with land the Prosper Portland board has voted to sell them at a fraction of the price it would sell for on the open market—terms rarely extended to independent promoters and venues. The City is giving preferential treatment that poses significant issues for Portland's independent music scene, local businesses, and investment.

- **Local Small Businesses Must Survive:** In cities like Austin, Boston, Des Moines, Philadelphia, and more, local governments' embrace of Live Nation has led to challenges for independent venues and artists that have invested in their communities for years.
- **Independent Stages Boost Local Artists:** Independent promoters and venues provide essential opportunities for emerging local artists to perform and grow their fan base.
- **Portland's Live Economic Impact Fueled By Homegrown Venues:** Local independent operators reinvest in the community by creating jobs, supporting local vendors, and stimulating nearby businesses such as restaurants and retail shops. Keeping the venue under local management ensures that economic spending by local and visiting fans stays within Portland, fostering sustainable growth rather than flowing to investors all over the world.

- **Viable Local Promoter Alternatives to Manage Central Eastside Venue:** With a decades-long track record, local promoters have demonstrated they are ready and capable of operating a venue in Central Eastside without compromising Portland's independent spirit.

In light of these concerns, we call on the City of Portland to:

- Require that the new venue be operated by a local independent promoter or venue operator.
- Protect and nurture Portland's local music ecosystem.
- Maintain Portland's unique cultural identity and community engagement.
- Ensure that economic benefits remain within the local community.

If the City Council moves forward with this deal in its current form, they are risking the future of independent promoters and venues who have poured their passion, sacrifice, and hard work into building a music scene that is a point of cultural pride and economic development for Portland.

We implore you to take immediate action to safeguard Portland's independent music scene and choose to listen to the local small businesses and nonprofits that have served your community for decades.

We stand ready to assist in any way. Thank you for your attention to this critical matter.

Sincerely,

Stephen E. Parker
Executive Director
National Independent Venue Association

	Agenda Item	Name or Organization	Comments	Attachment	Created
116	812	Steve Novick	Dear members of the Council, I hope you can find a way to keep Live Nation out of Portland. I confess, as a lawyer, that I have not done the research on the extent to which you can legally rely on Live Nation's record of predatory and lawless business practices as you make this decision - and of course I would not want you to do anything illegal. But to the extent you can rely on their record, it is clear: they are a monopolistic company, bent on destroying competition. And they area threat to Portland's vibrant music scene. I live every day with regret for not keeping another lawless company - Uber - out of Portland, with the corresponding impact on our local taxi companies and drivers. I fear that you will live with regret if you have a way to keep Live Nation out, but let them in. I realize that Portland should have a mid-sized music venue, but as you know, Monqui Presents is planning such a venue in Lloyd Center. Importantly, when Mike Quinn was asked, "Do you have any dream acts that you would love to see play there?" his response was: "Not right now. Maybe a couple Jack White shows." It was a perfect answer. At one point Jack White was the gold standard for music hipness, so naturally Quinn thought of him first. And White may still be so; who else would call his tour the "Supply Chain Issues Tour"? But at this point, White might be a bit dated, so Quinn's caution in not just saying "Jack White," period, makes sense, too. The answer makes me feel that Portland's mid-sized music venue future is safe in Monqui's hands . Best regards, Steve Novick	No	09/19/24 9:24 AM
117	812	Todd Mylet, Owner of Portland Fret Works (Instrument repair shop)	I am opposed to the development/land use deal to allow LiveNation to build a venue in inner SE Portland. This development would be contrary to the public good. I oppose it for two reasons: 1. The siting is poor. 2. More importantly, LiveNation is a national corporation that acts to stifle competition and would increase the cost of attending concerts for fans and drive out smaller local promoters and venues by using it's considerable financial resources to control and corner the live music market in Portland. I highly prefer and diverse, local, and grassroots music scene. We should promote local. The public is better served when we promote local.	No	09/19/24 9:34 AM
118	812	Ellen	Independent music venues are a huge part of what makes Portland so wonderful. Please don't let a mega corporation crowd out existing venues.	No	09/19/24 9:40 AM

	Agenda Item	Name or Organization	Comments	Attachment	Created
119	812	MusicPortland	Dear Council Members, I am an active musician in Portland and as the Director of Operations for MusicPortland. There's nothing I care more about than making life better for folks in the music industry. MusicPortland's mission is to provide economic opportunity for the music sector. This venue may seem like it creates jobs for us, but the cost of Live Nation's business practices is more than enough for us to say, NO, we can't allow them to operate a venue in this Portland. Oregon is one of 40 states joining the DOJ in a lawsuit against Live Nation for anti-competitive monopolistic practices. When the DOJ approved the Ticketmaster merger in 2010, the terms were that they had to play fair in the market, and they proceeded to dominate local music scenes all over the country. If the DOJ can't make Live Nation play fair, then why should we expect that the City of Portland can? I ask you to Google these 3 articles and consider these red flags: - Live Nation Accused of Cheating MET Owner out of Concert Proceeds - City of Atlanta Performance Audit - Management of Live Nation Lease Agreements - Live Nation facing $47M lawsuit over Times Square McDonalds Cleanup If we invite Live Nation in, we WILL be one of these headlines. They already violated noise code for unapproved fireworks at Providence Park in the last few weeks when Foo Fighters played and refused to talk to the city when they asked to meet about it. I am concerned that they will breach their contract with Beam and Colas, revered local businesses here, and that they will follow the example they've set in most major cities in the U.S. as bullies out for themselves. We can't let them do this to our music industry and our city. Thank you for your time. Renée Muzquiz	No	09/19/24 9:43 AM
120	812	Kristy Overton	Keep Live Nation out of Portland! They do not care about the prosperity of our city or the musicians who play here. A larger music venue is a great idea, but PLEASE, give it to a local developer!	No	09/19/24 9:48 AM
121	812	Kaitlyn Morgan	I do not support a live nation venue being established in Portland, OR. Livenation and Ticketmaster already have a monopoly on ticket sales and music venues across the US and Portland must resist these companies tactics of buying venues and pushing out local owners. I encourage city council to reject Livenation and Ticketmaster venues in Portland to encourage our local economy and music.	No	09/19/24 9:53 AM
122	812	Missi Hasting	I support the appeal and hope that the Council will reject Live Nation's proposal. It is damaging to our local music scene and there are better options for our city.	No	09/19/24 9:57 AM
123	812	Jessica Dalton	I support the appeal by Portland Music against the Hearing Officer's decision to approve with conditions a Conditional use and Adjustment Review for a new concert venue in the Central Eastside. As a Portland and Eastside resident and supporter of our local music and art community, allowing Live Nation access to the Portland market will be detrimental to the vibrant and diverse music and art scene that is a major part of making Portland the city that we love. Live Nation works in direct opposition to the growth and sustainability of our small venues that support local and touring musician. I oppose any actions by Portland's government that would facilitate Live Nation entering the Portland market.	No	09/19/24 10:07 AM

	Agenda Item	Name or Organization	Comments	Attachment	Created
124	812	Jeremy Wilson - Musician	My name is Jeremy Wilson. I am a member of the Dharma Bums (formed1986) and founder of The Jeremy Wilson Foundation 501(c)3 Musician Health & Services Program assisting musicians in Oregon and Clark County WA since 2010. I have been a life long musician and it has been said that my band Dharma Bums has had a cultural impact on Portland and Oregon identity. Portland has a well deserved reputation as a worldwide influencer on progressive ideas and culture at large: food; art; design; environmental awareness; to name a few, and most specially from the strong pioneering spirit and influence that our hardworking musicians have been able to have. Musicians have made our town vibrant and have shined a remarkably positive light on our city worldwide. This has been in large part because Portland has been an artist friendly place where artists are actually able to scrape out a living because of their direct connections to venues large and small that help support them and spread the word about their fabulous talents. It makes NO SENSE to me whatsoever that the City of Portland would invite such a disruptive force as Live Nation/Ticket Masters into our town to change the dynamic of everything that makes Portland one of the greatest cities on earth. Especially when we have so many home grown solutions to keep our economy strong and our city vibrant and unique such as local promoters and music focused companies like MonQui Presents and McMenamin's and others with a strong interest in not only promoting local identity and artists but to drive our economy and keep dollars circulating in our community. Please do not sell out this power to Live Nation and the multinational company that owns them. It's been proven over again that Live Nation consolidates local power, influence and money and has devastating impacts on the local identity and independents of the regions they occupy. Please just say No!	No	09/19/24 10:32 AM
125	812	Melissa Hood	I believe building a new Live nation venue in Portland will not be beneficial to the city or surrounding cities. LiveNation is operating as a monopoly that will harm our local music scene by starving and resticting locally owned venues and bands. Instead of the profits from this new venue going back into the community, they will only fill the pockets of a multinational corporation that is currently being sued for violations of antitrust laws. There is evidence of this happening in other cities across the US. Please consider the opinions and wellbeing of the community in your decision.	No	09/19/24 10:39 AM
126	812	Stacey Philipps	I support the appeal of the Conditional Use Permits for Live Nation and DISAGREE with the decision to approve a new concert venue owned and run by this company, which has a long, unethical track record of violating antitrust laws and monopolizing music venues at the expense of locally owned, independently operated musicians and businesses. Come on, Ticketmaster--are you kidding?! Let's keep the Portland music culture independent and weird, like it should be, and find another locally funded and owned way to get this kind of venue in town, so it's actually a real public benefit, not a corporate one.	No	09/19/24 10:43 AM

	Agenda Item	Name or Organization	Comments	Attachment	Created
127	812	Mía Keeler, CEO of Local Fest Connects LLC	Dear Portland City Council Members, As an active and dedicated member of Portland's Music Community, I am writing to express my concerns with Live Nation's proposal to open a music venue on Water Avenue near the Hawthorne Bridge. Our local, independent music scene is a vital part of Portland's unique cultural fabric, and this proposal potentially threatens its very existence. I have seen the beauty in our local music community. I have seen the opportunities afforded by Portland's locally-owned and operated music venues, organizations, LLCs and nonprofits. These coalitions work diligently to uplift our marginalized communities and provide opportunities to our youth musicians and players. Music Portland has advocated for Portland musicians for years, lobbying for adequate pay to artists as we face inflation, and providing resources to collect compensation for performing original music using ASCAP and BMI. Meara McLaughlin is a champion of Portland's Music Community. Andre Middleton with Friends of Noise continues to bring opportunity to youth musicians. Friends of Noise provides classes to youth on music and business, providing performance workshops and regularly hosting showcases where these teen and youth performers are being paid their worth! At a local watering hole for singer-songwriters, The Atlantis Lounge on Mississippi Street, players come together to share their newest works. This is where the band Glitterfox got their start, now signed by the label Kill Rock Stars, and committing to nationwide tours. Down the street at The 1905, Portlanders can sit down next to Mel Brown (a prolific jazz drummer, born and raised in Portland, OR) and witness up and coming jazz musicians come together for nights of improv on jazz standards. This is where Charlie Brown, a jazz pianist, got his start. Charlie Brown now travels worldwide with MonoNeon, a Grammy-winning, international act. Brown represents Portland's Music Community every time he tickles the ivories. Speaking personally, my small business, Local Fest Connects LLC, has had the pleasure of uplifting over 130 local musicians and performance acts. We are indiscriminate on age, music genre and performance style. Comedians, drag shows, kiki ballroom dance performances, improv puppeteers, genres from pop to punk and everything in between have all had their place on our stages. We have highlighted performers as young as 10, and as old as 87. Local Fest Connects has also been able to uplift and provide vending space to over 85 local businesses and visual artists/creators. As a small business owner with a vested interest in being able to continue to provide spaces of community and connection, across genre, age, identity and community affiliation, I know Live Nation's presence poses a threat to this invaluable work. According to the Department of Justice, Live Nation has harmed local music industries nationwide. The recent Department of Justice lawsuit, supported by 30 state attorney generals, exposes how Live Nation's monopolistic practices prioritize corporate interests over community values. Live Nation inflates ticket prices and stifles opportunities for local artists and venues through exclusive contracts and retaliatory tactics. Based on this, we believe that allowing Live Nation to establish a venue in our city would be a disaster, undermining the independent music scene we cherish while also creating public safety and logistical nightmares. This move is a blatant betrayal of Portland residents' best interests. Why is the City of Portland proposing to subsidize what the US Dept. of Justice has accused of being one of the most profitable, predatory corporations in the music industry to destroy our local, independent music scene? I deeply urge you to oppose this deal - both the land use, and all City of Portland support for the deal! Sincerely, Mía Victoria Keeler CEO of Local Fest Connects LLC	No	09/19/24 10:54 AM
128	812	Max Lamb	I understand that there is valid and good intent in wanting to build a venue under black ownership but doing so through a criminal organization seems counter productive and hypocritical. There are other avenues and ways that this city can support black owned businesses and I think that turning live nation down and asking for support from the city to still build an independent venue that is owned by the black community would have overwhelming support from the city. There are better ways to elevate communities than using predatory criminals to do so.	No	09/19/24 11:15 AM
129	812	Portland State University	My name is Henry O'Brien and I am a Musician and Music student at PSU. I support the appeal and believe LiveNation should not be aloud to have a venue here. It puts our music community in danger and Portland needs a thriving music community like the one is has now.	No	09/19/24 11:24 AM
130	812	Jeff Miller, Travel Portland	Testimony in support of the proposed venue	Yes	09/19/24 11:28 AM

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September 19, 2024

Dear Mayor Wheeler and Commissioners,

I am writing to urge you to deny the appeal of the Hearings Officer's decision regarding a new concert venue in the Central Eastside. This is a land use decision which does not rise to council action and the appeal seems to be based on the user of the building, not the land use issue at hand.

I support the proposal to construct a new major event entertainment venue because I believe the public benefits in this case outweigh any impacts that cannot be mitigated.

As Portland continues to face economic headwinds we are all seeking pathways to revitalize and restore the vibrancy of our central city.

Redevelopment projects such as the one proposed by Beam Development are necessary to increase entertainment offerings, reactivate underutilized spaces and draw locals and visitors out to enjoy the central city once again.

The proposed project is especially important, as Portland has no mid-sized venues to be able to offer high caliber performances to audiences too large for a club and too small for a stadium.

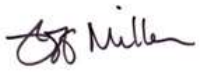
We can no longer afford to let old ways of thinking stand in the way of a more vibrant future for Portlanders.

Nonetheless, it is still critical for the owners of the new venue to ensure that their tenant is additive to the local music scene and that they will not harm our existing venue ecosystem.

To that end, I would like to call upon Beam Development, Colas Construction and representatives of LiveNation to sit down for a conversation with representatives from Music Portland to be facilitated by Mike Thelin, who has offered to bring both sides together. Should any of the parties refuse to negotiate, then in my estimation, they have no standing.

They should be able to come to an agreement so that everyone can support this investment in Portland.

Sincerely,



Jeff Miller
President and CEO

	Agenda Item	Name or Organization	Comments	Attachment	Created
131	812	Frank O'Brien	I am in support of the appeal and do not think a live nation venue would be good for Portland.	No	09/19/24 11:45 AM
132	812	Jason Sotomayor	Dear Portland City Council Members, I am writing to express my concerns with Live Nation's proposal to open a music venue on Water Avenue near the Hawthorne Bridge. Our local independent music scene is a vital part of Portland's unique cultural fabric, and this proposal potentially threatens its very existence. As you consider the impacts to infrastructure, it's important to highlight the broader concerns that we have as Portlanders. The community has zero confidence this venue will serve the public good without imposing significant risks. Significantly increasing traffic on already congested roads along a busy train route and overwhelming an area with very little capacity for parking cannot be ignored or half-heartedly addressed with conditional approval. No one looking at these issues objectively can possibly vote to approve this project. According to the Department of Justice, Live Nation has harmed local music industries nationwide. The recent Department of Justice lawsuit, supported by 30 state attorneys general, exposes how Live Nation's monopolistic practices prioritize corporate interests over community values. Live Nation inflates ticket prices and stifles opportunities for local artists and venues through exclusive contracts and retaliatory tactics. Based on this, we believe that allowing Live Nation to establish a venue in our city would be a disaster, undermining the independent music scene we cherish while also creating public safety and logistical nightmares. This move is a blatant betrayal of Portland residents' best interests. Why is the City of Portland proposing to subsidize what the US Dept. of Justice has accused of being one of the most profitable, predatory corporations in the music industry to destroy our local, independent music scene? I urge you to oppose this deal - both the land use, and all City of Portland support for the deal! Sincerely, Jason Sotomayor	No	09/19/24 12:00 PM
133	812	M Mathews	PLEASE DO NOT ALLOW LIVE NATION- TICKETMASTER to create another music venue. The negative impacts far outway the positive. We definitely do not need another big ugly gorilla monopolizing in our city.	No	09/19/24 12:01 PM

	Agenda Item	Name or Organization	Comments	Attachment	Created
134	812	Steph Routh	Good Afternoon Mayor Wheeler and Members of City Council, My name is Steph Routh. I am a Portland resident who studied opera performance and theatre in college. Portland's independent music scene is a citywide treasure that plays a vital role in what makes this city beloved and special. To the best of my understanding, Portland is the only city of its size that has so far managed to skirt away from a long term relationship with Live Nation, a corporation that has been recently sued by the US Department of Justice for monopolizing markets through exclusionary contracts (https://www.justice.gov/opa/pr/justice-department-sues-live-nation-ticketmaster-monopolizing-markets-across-live-concert). Monopolies are not great for developing a vibrant, resilient economy, nor does it offer the conditions for the creativity and innovation that Portland has been known and loved for. I'm not sure why Prosper Portland has offered to sell the "ODOT lots" to support a Live Nation venue in a sudden move that has surprised many, but it seems ill-advised, especially given the federal pending lawsuit. Time and more consideration seem the more prudent path here. Please oppose this deal. Thank you, Steph Routh	No	09/19/24 12:03 PM
135	812	Honkytonk Basement	I run a local newsletter and IG account for country and roots music events in town and everything I've discovered about Live Nation is appalling. I've attached a document here about why this is bad for the Portland music scene. I can't think of any reason why this permit was approved without taking in the consideration of the local music scene and also why a company that is being sued by the government for being a monopoly is being allowed to start a music venue here. This is BAD for business and the local music scene. Listen to your constituents. They matter. We matter and there are many other ways you can support and foster our local music scene without giving in to the monopoly of Live Nation.	Yes	09/19/24 12:14 PM
136	812	Lewi Longmire	I am in support of the appeal to have more community input about the development of this site as a venue owned by outside interests. This project should not move forward without complete transparency and input from the general public of Portland!!	No	09/19/24 12:16 PM
137	812	Carolyn Burnes	I am in support of the appeal. Independent artists and music venues in Portland are the life blood of the city’s culture. It would be a tragic disservice to the community to allow Live Nation to come in and monopolize the scene, driving out the longstanding community.	No	09/19/24 12:17 PM
138	812	Kevin Killian (VINNISCO)	The live nation venue will not benefit the local music community. Live nation has a history of shady business practices and harmful contracts that limit upcoming artists from reaching their potential. They create a monopoly on ticket sales and stress local smaller venues until they are beat out or can be acquired. I am an emerging music producer/DJ and all of my shows currently are independently run, if live nation is allowed to move into Portland they will make it difficult for me to continue growing as an artist and DJ	No	09/19/24 12:19 PM
139	812	Erin Lamb	Why bring a known problem into our cherished City? Please stop Live Nation coming to Portland. Damaging our local music scene would decrease Portland’s cultural cache, which would likely inhibit economic recovery. Thank you.	No	09/19/24 12:21 PM
140	812	Stefan Reichardt	No live nation! Make the right choice don’t let them ruin our local music scene	No	09/19/24 12:27 PM
141	812	SE Portland Resident	LIVE NATION is not welcome in Portland. Please do not support the continuation of this conversation and DO support Music Portland and our local venues by uplifting community in the Portland way. Why would we want to bring in an out of state revenue monster that is being sued by the government so that it can turn our vibrant local creative scene upside down? Stop breaking everything as you head out the door. The new city council should have a voice in these major decisions and not the current sitting council. We can do better Portland. Do the right thing and do not advance Live Nation’s interests in setting up shop here--support the local folx that are here doing the work. An example of good business would be the Port of Portland’s newly expanded airport with ONLY local businesses and eateries at our airport. Take heed and learn from folx that support the local economy.	No	09/19/24 12:27 PM

10.Lack of Competition:

With fewer independent venues and promoters able to compete, fans have limited choices in concerts, artists, and venues, leading to less variety and innovation in live music experiences.

	Agenda Item	Name or Organization	Comments	Attachment	Created
142	812	Kathleen Bundy	Dear Portland City Council Members, I am writing to express my concerns with Live Nation's proposal to open a music venue on Water Avenue near the Hawthorne Bridge. Our local independent music scene is a vital part of Portland's unique cultural fabric, and this proposal potentially threatens its very existence. As you consider the impacts to infrastructure, it's important to highlight the broader concerns that we have as Portlanders. The community has zero confidence this venue will serve the public good without imposing significant risks. Significantly increasing traffic on already congested roads along a busy train route and overwhelming an area with very little capacity for parking cannot be ignored or half-heartedly addressed with conditional approval. No one looking at these issues objectively can possibly vote to approve this project. According to the Department of Justice, Live Nation has harmed local music industries nationwide. The recent Department of Justice lawsuit, supported by 30 state attorneys general, exposes how Live Nation's monopolistic practices prioritize corporate interests over community values. Live Nation inflates ticket prices and stifles opportunities for local artists and venues through exclusive contracts and retaliatory tactics. Based on this, we believe that allowing Live Nation to establish a venue in our city would be a disaster, undermining the independent music scene we cherish while also creating public safety and logistical nightmares. This move is a blatant betrayal of Portland residents' best interests. Why is the City of Portland proposing to subsidize what the US Dept. of Justice has accused of being one of the most profitable, predatory corporations in the music industry to destroy our local, independent music scene? I urge you to oppose this deal - both the land use, and all City of Portland support for the deal! Sincerely, Kathleen	No	09/19/24 12:28 PM
143	812	Nathan Varner	I don't support live nation and support giving more rights to the musicians	No	09/19/24 12:28 PM
144	812	MusicPortland	As an independent musician in Portland I am in favor of the appeal. A LiveNation venue would have negative impacts on the music scene here and the ability for small venues to thrive. For the future of the music scene ensuring fair competition between venues and affordable ticket prices for fans is essential.	No	09/19/24 12:37 PM
145	812	Duncan Richins	Ticketmaster and the like can blow me!	No	09/19/24 12:38 PM
146	812	Music Portland	As a musician and someone who cares about Portland, I'm in support of the appeal. I'm deeply concerned about the negative impact that LN will have on small venues and vulnerable artists.	No	09/19/24 12:40 PM
147	812	Amy Carrick private citizen	I vehemently oppose Live Nation's venue development in Portland. This is a monopoly being sued by the Department of Justice , a suit the State of Oregon signed on to so you explain how Portland with good conscience can knowingly & willfully approve permitting for an entity they legally recognize as a monopoly, illegal and bad for business and ultimately bad for EVERYONE except Livenation. I beseech you to reverse the permitting approval granted to Livenation. Keep Portland rooted in doing what's right rather than selling out like everyone else has in Seattle, San Fran & LA. Keep our musicians thriving and our music scene vibrant .	No	09/19/24 12:43 PM
148	812	Emily Hinshaw	I am against taking away hard-earned money from the musicians that deserve it.	No	09/19/24 12:45 PM
149	812	Central Eastside Industrial Council		Yes	09/19/24 12:51 PM

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To: Mayor Wheeler and Commissioners Gonzalez, Mapps, Rubio, and Ryan
From: Carolyne Holcomb, Executive Director, Central Eastside Industrial Council
Subject: Central Eastside Industrial Council expresses support for Central Eastside Music Venue (Agenda Item 812 - LU 23-111784 CU AD)

The Central Eastside Industrial Council (CEIC) enthusiastically supports the 3,500-person music venue on SE Water Avenue, a catalytic investment that promises to enhance our central city's economic and cultural vitality.

The Central Eastside, home to over 1,300 businesses and more than 22,000 employees, has become a focal point for innovation, arts, and culture. The proposed venue will fortify the District's distinctive food, beverage, and retail scene, fostering a more vibrant, prosperous, and harmonious business environment. Additionally, the venue will fill a vital gap in Portland's entertainment infrastructure, adding a flexible space to host 125 annual events.

The Central Eastside music venue will serve as a catalyst for growth by aligning with numerous efforts that have cast a vision for the Water Ave cooridor. The proposed site abuts a long-vacant property, which has created significant challenges at tremendous cost to our organization, local businesses, and our bureau partners. The transformation of this vacant lot will invigorate the surrounding area, supporting business resiliency by improving the daytime economy and aiding in the evolution of nightlife activity.

The venue placement aligns with Governor Kotek's Central City Task Force recommendations for revitalizing the city core, particularly through job creation, public safety improvements, and community activation—principles central to the CEIC's mission of building a vibrant and economically thriving District.

The CEIC has appreciated Beam Development and Colas Development Group's prioritization of meaningful dialogue with local stakeholders, which recognizes that for a project of this scale to succeed, it must reflect the community's needs and values. By partnering with Prosper Portland, the development team held multiple community roundtables, which the CEIC has participated in, to provide a forum for residents, business owners, and cultural leaders to share their thoughts, ask questions, and provide feedback.

The CEIC believes that this level of engagement demonstrates a thoughtful and inclusive approach to this project, ensuring it aligns with the Central Eastside's broader vision. Additionally, the CEIC has partnered with Beam and Colas through our Land Use and Transportation, Parking, and Advisory Committees, hosting multiple community engagement sessions. These committees provided essential feedback to the developers on integrating the

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venue into the existing urban environment while protecting the industrial character of the Central Eastside and adding value to the District.

Our support for the Central Eastside Music Venue cannot be overstated. The Central Eastside music venue will be a transformative addition to Portland's Central City, driving economic growth, enhancing safety, and increasing our district's vitality by attracting local and regional visitors to our businesses and public spaces.

The CEIC is proud to add our voice in support of the Central Eastside music venue and we look forward to the positive impact it will have on our City.

Sincerely,

Carolyne Holcomb
Executive Director
Central Eastside Industrial Council

	Agenda Item	Name or Organization	Comments	Attachment	Created
150	812	Edward Reinfranck (Mr. Happy)	Without the independent music scene I would not be at the level I am. I have opened up sold out concerts for my musical idols and it has given me the confidence to pursue music. This describes so many of my friends. Keep Portland independent! We are so lucky with what we have here	No	09/19/24 12:52 PM
151	812	Colt Kranig	Portland has the healthiest and most vivacious music scene I've ever experienced. It's been an oasis in a sea of monopolized corporate controlled live music culture. Don't let live Nation come in here and sterilize this beautiful and unique scene. Keep Portland special. Keep Portland weird. Keep Portland unique. Keep Portland local. I want to continue supporting local venues and local businesses hosting live music. Don't let this money be funneled out of Portland to a monopoly that doesn't care about the people here, the business is here, or the music culture here.	No	09/19/24 12:54 PM
152	812	Sydney Fara	Please do not let Live Nation kill our beautiful local scene! We want a larger venue but NOT run by a monopoly like Live Nation / Ticketmaster. I saw how those companies ruined the Chicago scene by imposing heavy radius clauses, shuttering small independent venues, hiking ticket prices, etc. Ticketmaster also will buy up tickets from venues / artists who choose not to work with them and then resell their tickets on the Ticketmaster resale site for inflated prices so they can still make a dime off everyone else!	No	09/19/24 12:55 PM
153	812	Ola Kalejaye	Live Nation will be a death knell for the local music scene in Portland. Don’t let one of the best things about the city get ruined by this monopolistic monster. Keep Live Nation out of Portland - the rest of the country is watching.	No	09/19/24 12:57 PM
154	812	Luke Hendrickson	As a musician growing up in Portland the local music scene has always been part of my life. Playing at small venues like the Alberta st pub, and seeing my favorite local bands at larger ones like the Crystal Ballroom has always been a special part of living here. As part of the next generation of Portland musicians, Live Nation threatens my career and future in this scene. It will drive musicians like me out of the area and irreversibly damage the invaluable local music culture we have here. City Council members, please consider that live nation does not meet the public benefit criteria of land use during this hearing. Thank you.	No	09/19/24 12:57 PM
155	812	Riley Harris	My name is Riley Harris, I am a musician and college student. As someone coming into the music scene, I would hope the local scene that we know and love is not overpowered by outside, unjust forces. Monopolies are not good for community. Lobbies are not good for community. Please consider halting the Live Nation building plans, and choose a more sustainable path for our local venues and musicians. Thank you.	No	09/19/24 12:58 PM
156	812	Syrah Rae	The music scene in this city is vast, eclectic, and close knit. Myself as a performer and so many of the musicians I call my dear friends and are inspired by are not able to sustain their art or livelihood based on the how revenues are disbursed. It would be a disgrace to allow a huge corporation like Live Nation to sabotage our creative community by underpaying the creatives and overcharging their fans. Keep the music alive and allow our support to fund the artists and not the already wealthy.	No	09/19/24 12:58 PM
157	812	Emma Morgan	I don’t want live nation in Portland. I want our local music scene to thrive.	No	09/19/24 1:00 PM
158	812	Rachel Severein	PLEASE do not let Live Nation destroy our vibrant local music scene. Please stop them from coming in.	No	09/19/24 1:00 PM
159	812	Kari Schlaht / Honey Latte Cafe	We don’t want live nation here!!!	No	09/19/24 1:00 PM
160	812	Will Zesiger	Please protect the vibrant Portland music scene from a monopolistic corporate entity that solely cares about its profits and not about our community/music scene. They have broken promises and damaged music communities around the country. Protect Portland and support local artists and entrepreneurs build this city.	No	09/19/24 1:01 PM
161	812	Jeremy Baron	My name is jeremy baron and I am a local musician and former venue owner. I want to full heartedly express my vehement opposition to having a Live Nation venue here in Portland. I have seen them ruin the music scene in several other cities I have lived in, and oppose their monopolistic tactics to dominate local music scenes. We can have this venue with a better company that shares the same values as this community. Please vote no.	No	09/19/24 1:10 PM
162	812	Curt Allan	I support the appeal. This is Portland. We have a thriving independent local music scene. Here in Portland we support local independent businesses. There’s a reason this is only one Walmart within the city limits. Why would we allow a giant monopoly currently being investigated by Congress into our city? This is a direct threat to everything that makes the Portland music scene what it is. Please do not allow this to happen.	No	09/19/24 1:17 PM

	Agenda Item	Name or Organization	Comments	Attachment	Created
163	812	Jason Quigley	I'm a lifelong Oregonian and Portlander of 26 years. As long as I've lived here, I've frequently gone out to see live music, mostly smaller local shows. I consider the musicians, venues, sound engineers and everyone else in the independent music community, vital to Portland's culture and economy. I'm not opposed to a venue of this size being built. I am opposed to Live Nation owning and operating the venue, due to their well-documented history of running local music businesses into the ground in cities all over the country.	No	09/19/24 1:18 PM
164	812	Emmett McGregor	I support the appeal, which means I disagree with the decision to approve a new concert venue in the Central Eastside. Dear Portland City Council, You have before you today the opportunity to decide on the Land Use Permit for a proposed music venue which will be occupied by Live Nation. Your decision on this matter will have substantial and lasting impact on the character of the neighborhood, commercial district, entertainment business sector, and city at large. Live Nation and it's parent company Ticketmaster are a monopoly business currently under investigation by the Department of Justice with a record of using anti-competitive practices to put other event venues out of business and reduce the choice of consumers, booking agents, musical acts and performers of how an under what terms they would like to consume live events. The entertainment business, entertainment consumers, and the culture of Portland as a hub for both independent and mass market musical performance will be negatively impacted if Live Nation is allowed a permit to operate a medium-scale events venue in the city. Please consider that the economic wellbeing of the city as a whole is better supported by a strong and competitive events industry without the pressures of the Ticketmaster/Live Nation behemoth using every legal means available to them to undermine their competing venues and booking agencies, as they have consistently in other cities which have permitted equivalent projects. The location of the proposed venue is also problematic. As you consider the impacts to infrastructure, it's important to highlight the broader concerns that we have as Portlanders. The community has zero confidence this venue will serve the public good without imposing significant risks. Significantly increasing traffic on already congested roads along a busy train route and overwhelming an area with very little capacity for parking cannot be ignored or half-heartedly addressed with conditional approval. The proposed permit does not adequately address the strain on parking and transit infrastructure that would result from the construction of the venue. The proposed land use will negatively impact the planned high-density commercial/residential development of the neighborhood, and make it more difficult for development projects with higher overall economic value to the city to be designed and funded for their greatest potential good for the city. Please prevent land use permits from being issued, and vote to repeal any already issued permits for the proposed venue. Stand up for proper land use. Stand up for the local events business community, and performing artists. Stand up for Portland's strong creative culture. Thank you, Emmett McGregor, Portland Resident	No	09/19/24 1:19 PM
165	812	Mandy Allam	I support the appeal!	No	09/19/24 1:27 PM
166	812	KC Weimann	I support the appeal, which means I disagree with the decision to approve a new concert venue in the Central Eastside. I know that the city needs a midsize venue space. I get that. But handing this opportunity over to the notoriously predatory and monopolistic LiveNation/Ticketmaster flies in the face of everything I love about Portland. I have been a Portland resident for 12 years, and am an active member of music scene here. As a music fan, concert-goer, venue employee, music photographer, and member of a touring band, I have seen all sides of this issue. I have attended more shows, and performed on more stages than I could ever remember, but being at a LiveNation venue is a memorable experience for all the wrong reasons. I have been to, and performed at LiveNation venues in other parts of the country and everything about these places is inauthentic. When they recently announced that they were going to stop skimming money off touring artists merch sales, they billed it as this amazing thing they were doing to help put more money in artist pockets, as if they weren't the ones stealing from them to begin with. Please do not be fooled by whatever it is they are promising to bring to the city to help "revitalize" it. They are not interested in community. Their only interest is revitalizing their bottom line by any means necessary, even if it is at the expense of Portland artists and independent venue owners. I know the city needs this, but there has to be a way to get this project done without LiveNation.	No	09/19/24 1:33 PM
167	812	Liz Rubin	I support the appeal, which means I disagree with the decision to approve a new concert venue in the Central Eastside	No	09/19/24 1:35 PM
168	812	Live nation	I support the appeal, which means I disagree with the decision to approve a new concert venue in the Central Eastside	No	09/19/24 1:37 PM

	Agenda Item	Name or Organization	Comments	Attachment	Created
169	812	Jaclyn Smith-Moore	I will not go over what many other individuals are going to say. I share their views about the corporate entity that is Live Nation/Ticketmaster, their anti-competitive behavior, their concerns of their effect on our local music ecosystem, and the terms of this proposal. I believe their venue would be detrimental to our city and their track record indicates they are unlikely to uphold their side of the lease. We have legitimate concerns involving this proposal and Live Nation has not done enough to address them. Vote no to provide more time for Live Nation to address the concerns of our community. They can re-submit their proposal to the new City Council who will be better positioned to represent the needs of Portlanders. There are a lot of great candidates running and I trust them to guide the city in the right direction. If you approve this permit without addressing the concerns presented I fear that the fallout may be significant. It will fall to the new City Council to hold Live Nation accountable to the terms of this permit and to address the flaws of the current proposal. And Live Nation is going to fight every constraint put on them with an army of lawyers. Because ultimately they are not coming here out of goodwill, or to improve our city, they are here to make a profit. And whether that comes out of Portlander's pockets, from the lifeblood of our local venues, or from the city itself, they will have their due. All the more reason to vote no. Live Nation can afford to wait, let them address our concerns and return with a new proposal next year.	No	09/19/24 1:37 PM
170	812	Shannon Fitzpatrick	Please keep live nation out of pdx. Our city has a thriving music culture that we need to protect.	No	09/19/24 2:00 PM
171	812	777 Booking / Northwest Hardcore Fest	As someone that has resided in and participated in numerous music scenes across the country, I can say without a shadow or a doubt that Portland currently has the strongest local music scene that I've ever been apart of. This city is full of independent promoters putting together shows across a wide variety of genres. I believe, as already seen across nearly every major city in the country, that live nation will stifle this. In Portland we have many historic venues that have shows at fair and accessible prices. Without a live nation venue, artists have a lot of options when it comes to picking a venue. If other cities are any indication, and this permit is approved, these venues days are numbered which will ultimately result in less shows in Portland and therefore less revenue for the city due to the limit d number of places to play. Please do not approve this permit.	No	09/19/24 2:03 PM
172	812	Mandy ohara	I support the appeal against Ticket master/live Nation building a venue in Portland.	No	09/19/24 2:05 PM
173	812	Malachi Graham	Live Nation is a vital threat to our Portland music ecosystem. I support the appeal by MusicPortland in defense of our vibrant local music economy as a local musician and music business employee who has played music in Portland for 10+ years. Also, this is a terrible location for a music venue because of the train and public safety risks.	No	09/19/24 2:10 PM
174	812	North Rim Development Group; Jeffrey Weitz; Matthew Schweitzer		Yes	09/19/24 2:31 PM
175	812	Kristina Nelson	Please do not let a LiveNation venue come to Portland.	No	09/19/24 3:49 PM
176	812	Brendan Hale	I live in Southeast and take exit 300 off the I5 towards SE Yamhill. This exit is often backed up, particularly at rush hour and when a freight train is passing through the Central East Side at Water Ave. I'm concerned that this particular route will become all but unusable when it comes to driver safety, as the work-around for when a freight is passing is to drive south on Water towards Division. With a new venue in place, given that traffic and parking for 3500 people has been largely under-considered, I'm concerned traffic will continue to pile into I5, which is terrifying. With 3500 people in the street, including load-in and load-out, there is no direct route to move around a train. Traffic will pile up on I5, more than it already does.	No	09/19/24 4:10 PM

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September 18, 2024

Portland City Council
1900 SW Fourth Ave, Room 2500
Portland, OR 97201

Re:Appeal of the Conditional Use and Adjustment Review approval for a new concert venue in the Central Eastside (LU 23-111784 CU AD) Agenda Item: 812

Dear Portland City Council,

We oppose the appeal filed by MusicPortland and we are writing to express our 100% support of Beam Development, Colas Development Group, and Live Nation Entertainment Inc.'s proposal to build a concert venue in SE Portland based on its future positive impact on the local economy and the Central Eastside District. This development promises to enhance our vibrant music scene, promote economic growth in the district, attract new businesses to the area and create vitality and increase commerce.

As local business owners, real estate developers, general contractors, and property managers, my partner and I have a vested interest in the enrichment of the close-in central east side district of Portland. Here are several key ways the Live Nation development is expected to enhance the area:

1. **Increased Foot Traffic**: A concert venue naturally attracts large crowds, bringing significant foot traffic to the surrounding area, especially in the evening hours. This influx can benefit nearby businesses, including restaurants, bars, hotels, and retail stores, leading to increased sales and revenue. The economic impact of such a venue cannot be overstated. By drawing visitors from both near and far, it will further support our community and enhance Portland's status as a destination for live music and revitalize the Central Eastside District.

2. **Job Creation**: The construction and operational phases of the venue will create many new and numerous jobs, contributing to the local economy. With more employment opportunities, demand for commercial real estate in the area, including offices, restaurants, light industrial and retail spaces will increase and grow.

3. **Promoting new developments and Investments in the district**: As the venue attracts visitors, the desirability of the surrounding District will rise. This will lead to making the area an attractive option for real estate investors and developers looking to invest and contribute to the area's growing popularity. The establishment of a major entertainment venue will entice other businesses to invest in the area which can lead to the development of new commercial projects which will further enhance the attractiveness to the district and to the greater Portland business district.

4. **Diversification of Amenities and Support of the Local Arts Scene**: The concert venue will enhance Portland's cultural landscape, making it a more vibrant place to live and work. This diversity in entertainment options can draw in new residents and businesses and a new concert venue would serve as a catalyst for even greater artistic expression. This facility would not only attract top-tier talent but also provide local artists with a platform to showcase their work, fostering a thriving environment for musicians of all genres. By incorporating sustainable practices and community-focused planning, Live Nation can ensure that this venue not only entertains but also enriches the lives of Portland residents.

In conclusion, the planned concert venue represents a significant opportunity for Portland to enhance and stimulate the economy of the central business district as well as add a significant cultural and music scene which is poised to yield long-lasting social and community benefits. A new concert venue is an exciting opportunity for Portland to further establish itself as a cultural hub and I urge you to support Beam, Colas, and Live Nation in their efforts to bring this vision to life and to add much needed vibrancy to the Central Eastside District!

Thank you for considering the positive impact this venue will have on our city.

Jeffrey Weitz & Matthew Schweitzer
Owners, North Rim Development Group LLC

Agenda Item	Name or Organization	Comments	Attachment	Created
812	Heather Cummings	I do not support the LiveNation Venue on the eastside of Portland. The infrastructure in the area is inadequate and the location next to the commercial train tracks is incredibly dangerous, the area is unprepared for this amount of people, parking and traffic. As someone who used to visit this area late in the evening for parties, I have seen drunk people climb in between stalled trains while waiting for them to move. Someone who is tipsy and impatient to get home will climb over or under a train to get to their car. The sidewalks and roads are inadequate and actively dangerous for people who are in wheelchairs or with any sort of cane or walker, the streets and sidewalks are incredibly rough.This is not an investment in Portland's people, art or music, this tenant will quash small music venues, shows and makers and will make the local area, including the Yamhill exit, I405 and I5 so much more dangerous. Listening to the speakers today, including people with disabilities, neighbors, businesses, musicians, it's even worse then I had originally imagined. This is not a neighborhood that is prepared for thousands of drunk concertgoers. Please do not approve this venue.	No	09/19/24 4:14 PM

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