DESIGN REVIEW SUBMITTAL

revised July 21, 2016

kōz
DEVELOPMENT

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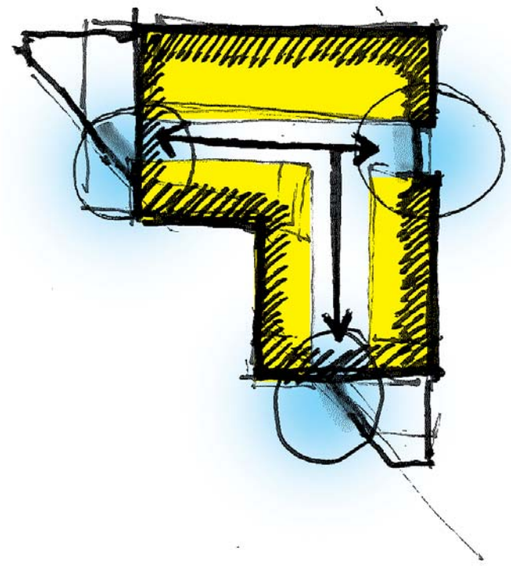

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R2	SECON
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I-405

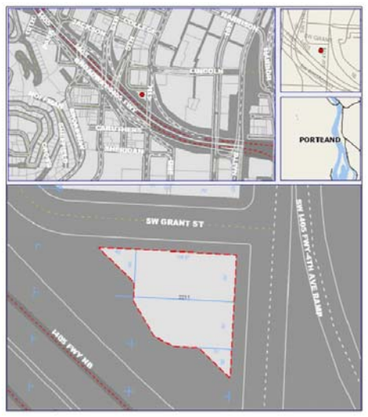
PORTLAND STATE UNIVERSITY

SOUTH PORTLAND

DOWNTOWN PORTLAND

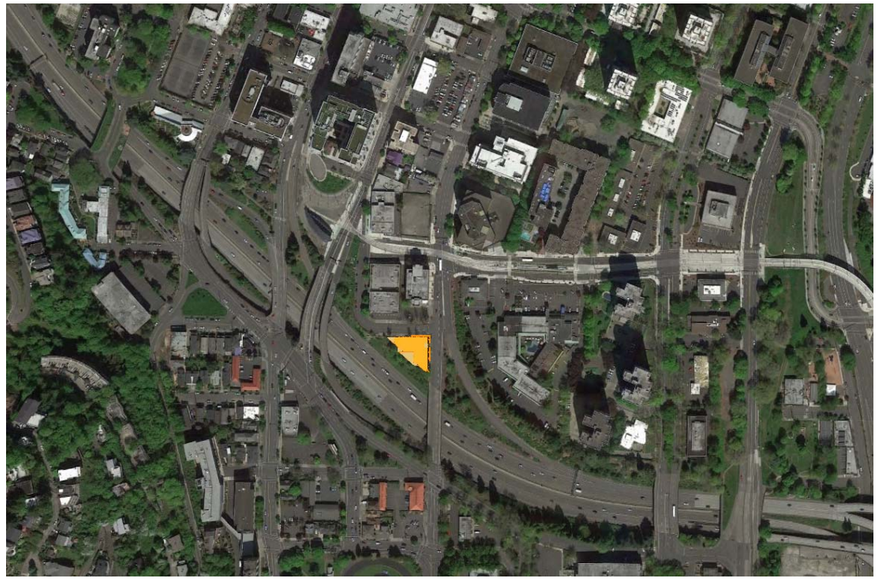
WILLAMETTE RIVER

SITE



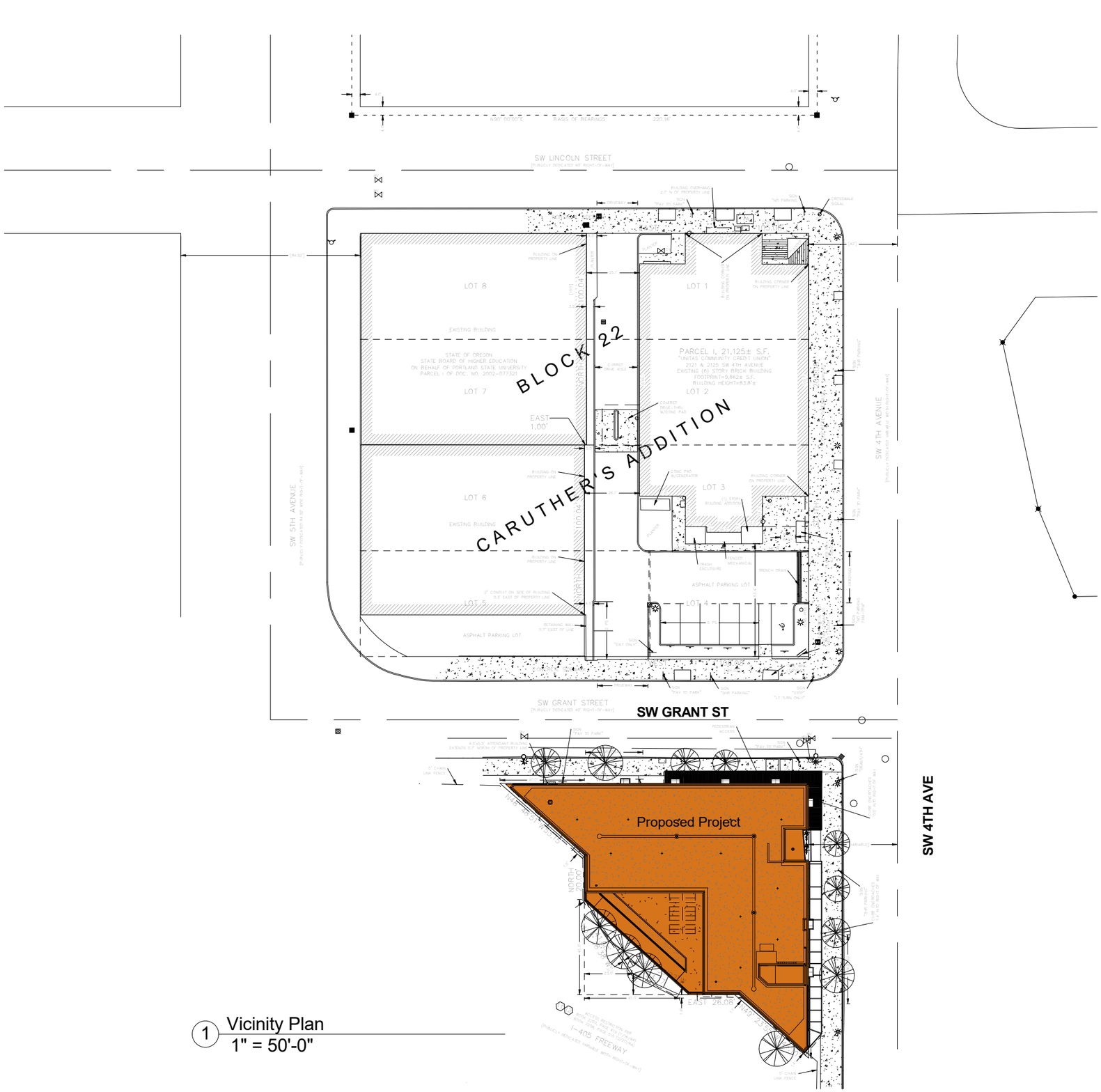
VICINITY

AREA



VICINITY MAP

PSU CAMPUS MAP AND AREA



1 Vicinity Plan
1" = 50'-0"

B - ADJACENT RESIDENTIAL STRUCTURE

D - ADJACENT COMMERCIAL STRUCTURE

C - ADJACENT COMMERCIAL BUILDING AT THE CORNER OF SW GRANT AND SW 4TH

E - ADJACENT COMMERCIAL BUILDING AT THE CORNER OF SW LINCOLN AND SW 4TH

A - ADJACENT RESIDENTIAL STRUCTURE

VIEW TO SITE FROM 4TH NEAR I-405

VIEW AT CORNER OF 4TH AND GRANT

VIEW INTO SITE FROM 4TH

VIEW TO SITE FROM GRANT

A

B

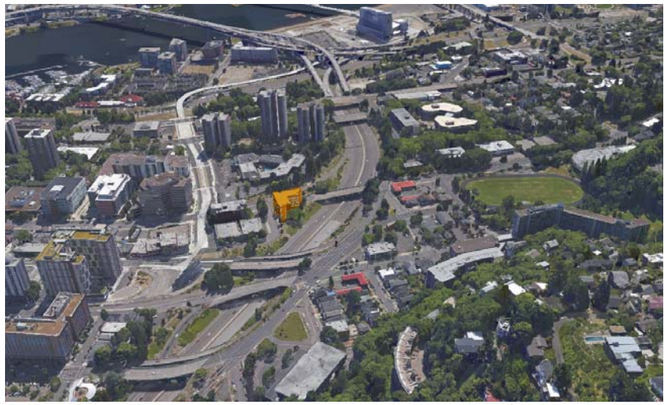
C

D

E

BIRDS EYE VIEW FROM THE SOUTHWEST

BIRDS EYE VIEW FROM THE EAST



BIRDS EYE VIEW FROM THE WEST

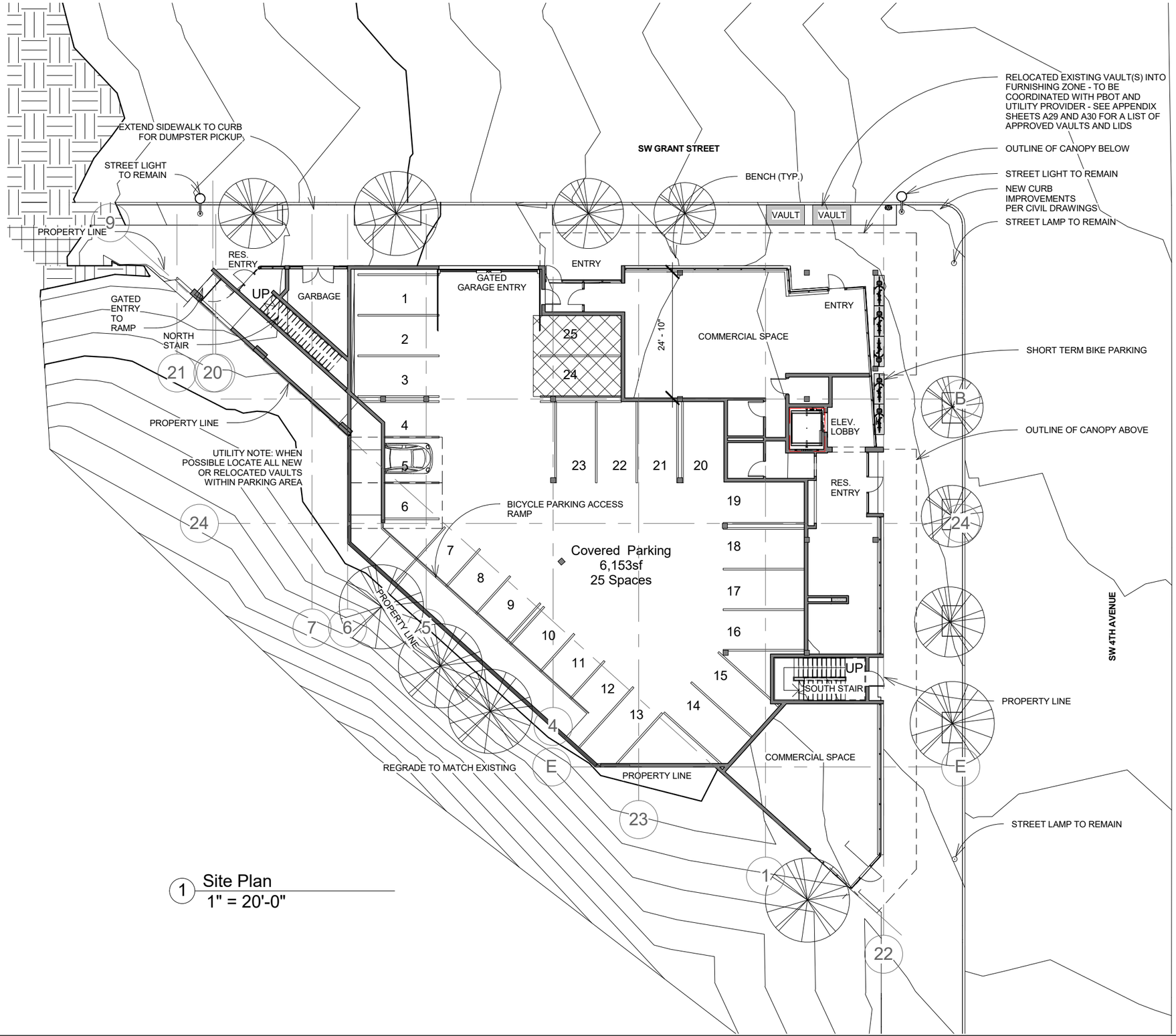
BIRDS EYE VIEW FROM THE NORTHWEST

VIEW FROM NORTHEAST

VIEW FROM NORTHWEST

VIEW FROM SOUTHWEST

VIEW FROM SOUTH



1 Site Plan
1" = 20'-0"

EXAMPLE OF PROPOSED CANOPY STRUCTURE

PREVIOUS CONCEPT PLAN
PRE-APPLICATION [EA 15-114048]
DESIGN ADVICE REQUEST [15-153663]

Comments:
1.) Provide canopies and weather protection at "entrances, oriels, ext.".
2.) No exterior lighting is shown in drawing set - integrate exterior lighting.

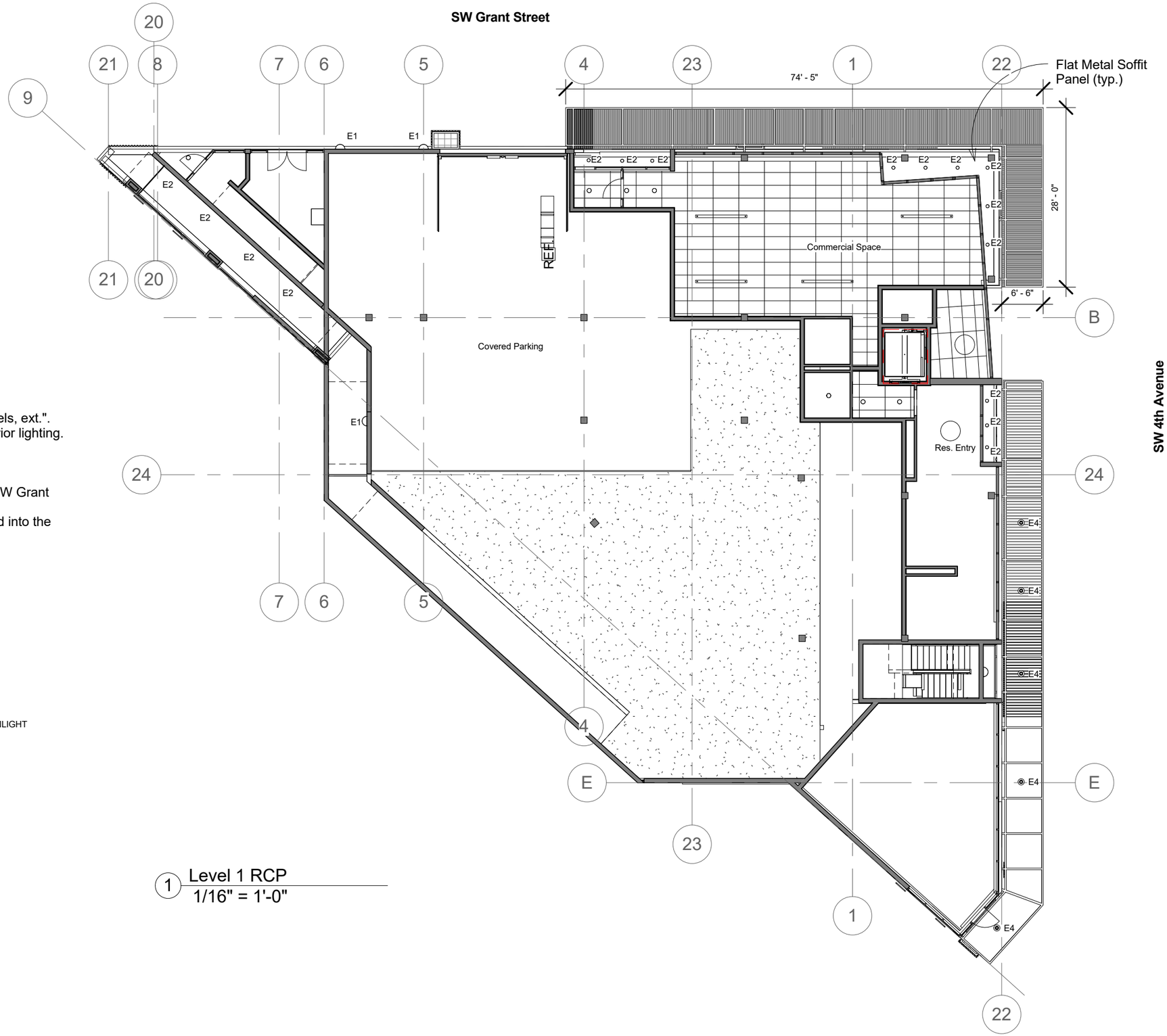
Summary of changes:
1.) Canopies have been provided along SW 4th Avenue and SW Grant Street.
2.) Exterior lighting has been added to the plans and integrated into the building design.

E3
RECESSED DIRECTIONAL WALL WASH

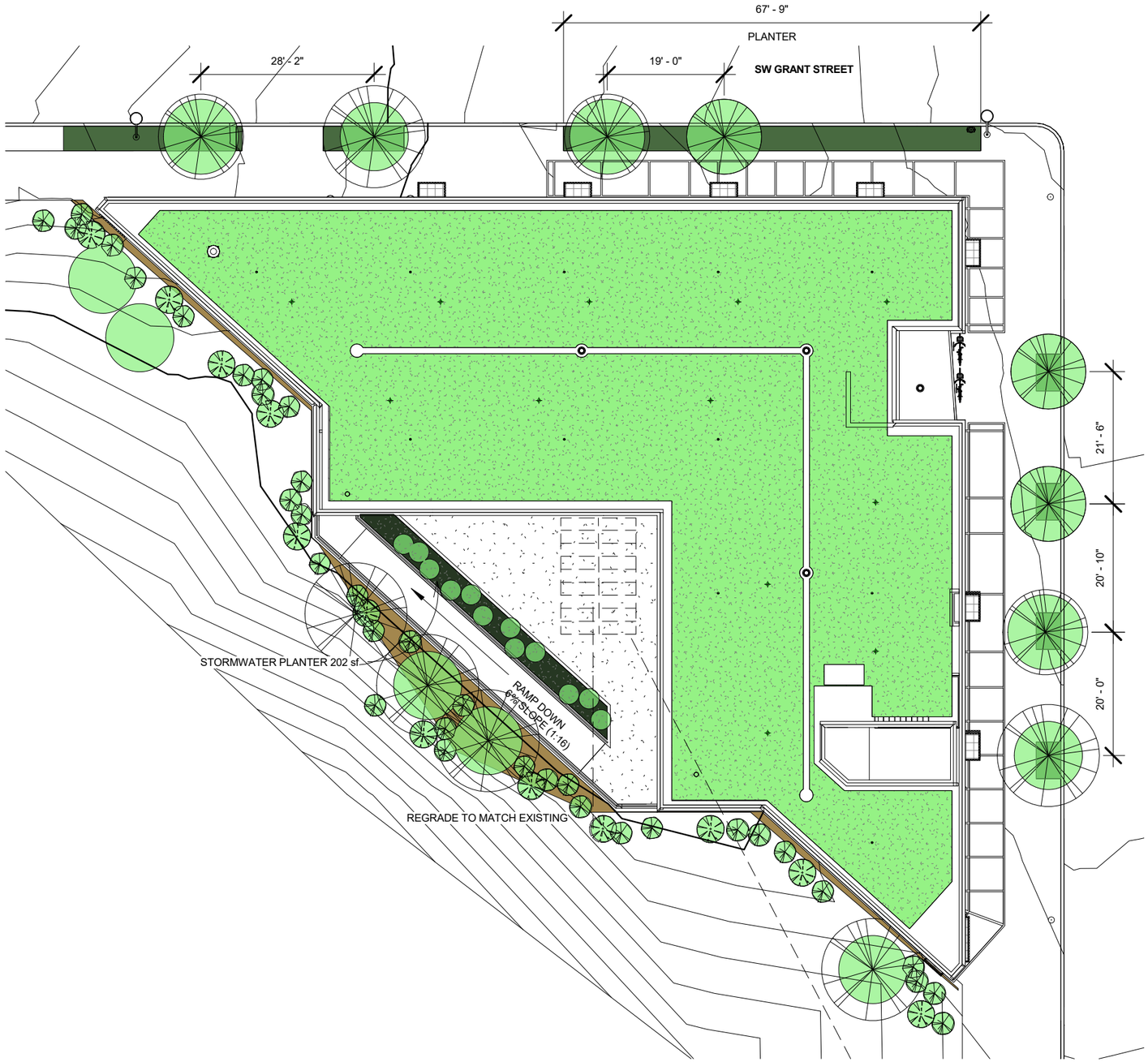
E4
PHILIPS SURFACE MOUNT DOWNLIGHT

E2
RECESSED LIGHT

E1
COOPER INDUSTRIES McGRAW-EDISON
ISC IMPACT ELITE CYLINDER LED WALL MOUNT



1 Level 1 RCP
1/16" = 1'-0"



1 Preliminary Landscape Plan
1" = 20'-0"

JAPANESE FOREST GRASS
1GAL POT / 16" O/C

1: ORNAMENTAL GRASS

HEAVENLY BAMBOO
PLANT 1GAL POT

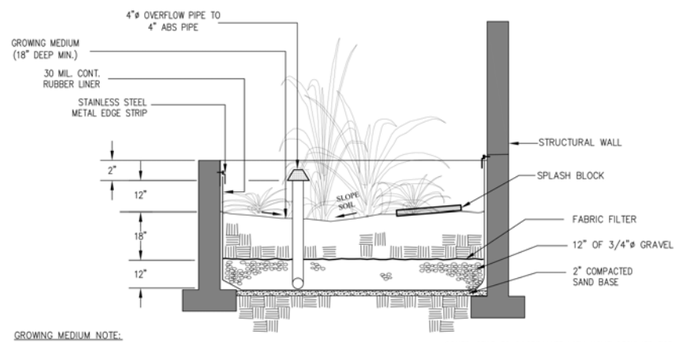
2: HEAVENLY BAMBOO

VIRGINIA CREEPER IVY
PLANT ALONG TOP OF WALL

3: IVY

RED ASH STREET TREE
6'-8' B&B

4: STREET TREE



STORMWATER PLANTER DETAIL

EXAMPLE OF RED CINDER AND SEDUM GREEN ROOF

EXAMPLE OF RED CINDER AND SEDUM GREEN ROOF

ROOF LEVEL DESIGN STRATEGY

BES Red Cinder Ecoroof Design is a self-sustaining, low maintenance, utilitarian roof system. The benifits of which are: Stormwater Management: Retention of a portion of the rainfall captured and reduction of flow coming from the roof area to the storm sewer. Increased insulation, protection of the roof covering, reduction of the heat island effect and added animal habitat. No irrigation or fertilization is required. The majority of the roof in the project is proposed to be a "green roof".

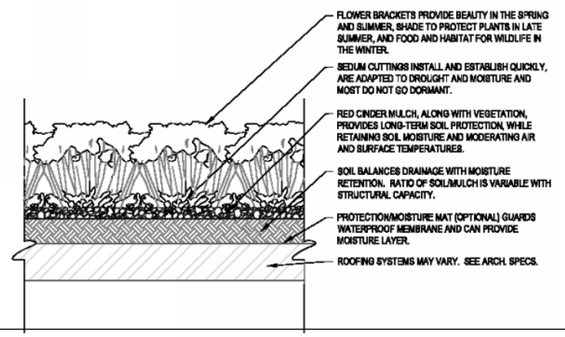
TABLE 03.1: BES RED CINDER SEDUM ECOROOF SYSTEM OPTIONS

Type	Moisture Mat thickness	Saturated weight psf	Media depth	Saturated weight psf	Red Cinder mulch depth	Saturated weight psf	Sedum weight psf	Total depth medium & mulch	Total weight psf
A	¼"	1	3"	18	1" to 1 ½"	5.75	2.25	4 ½"	**27.0**

1 Level 7
1/16" = 1'-0"

R8 3

R7 1



R6 1

1 R5

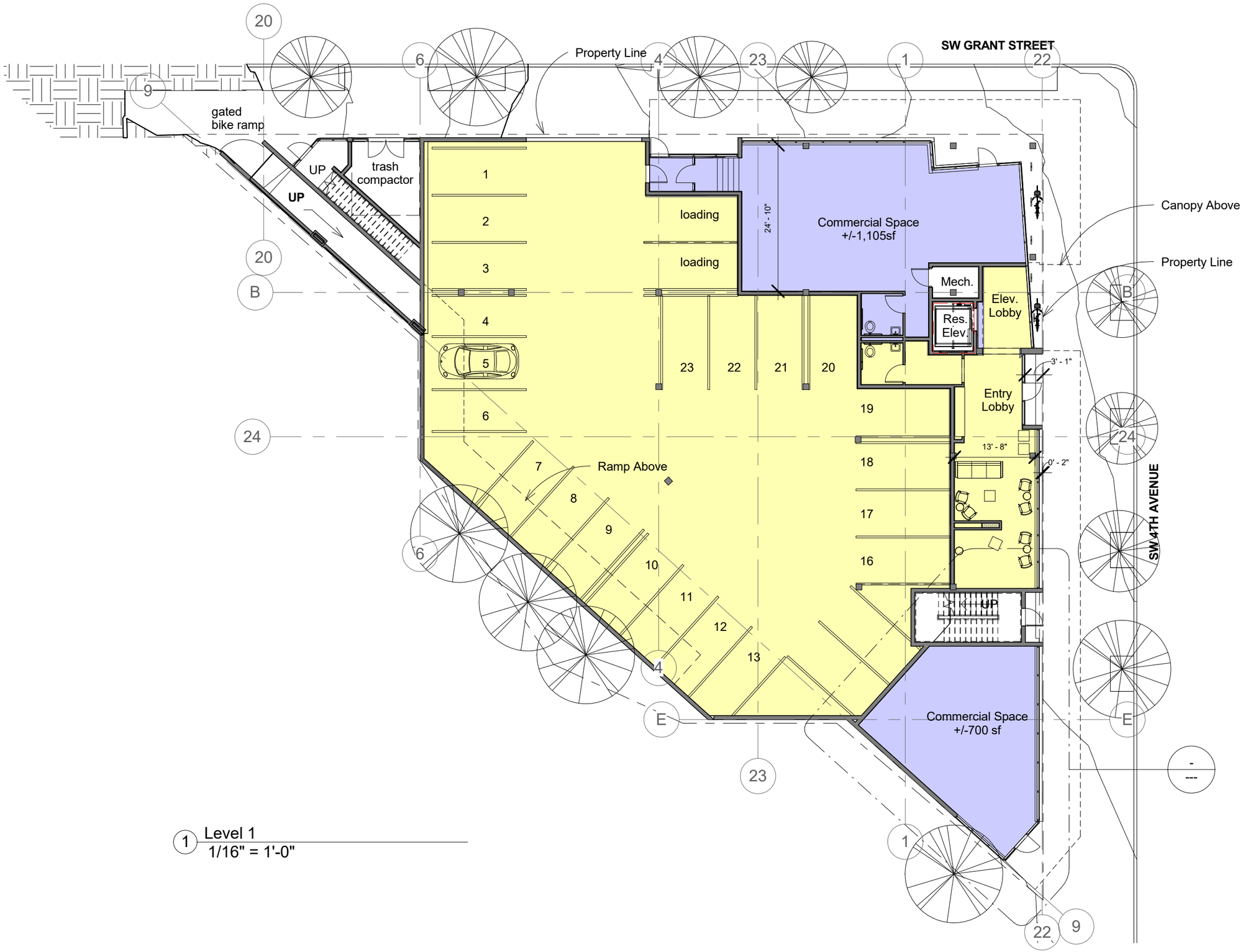
1 27

1 R10

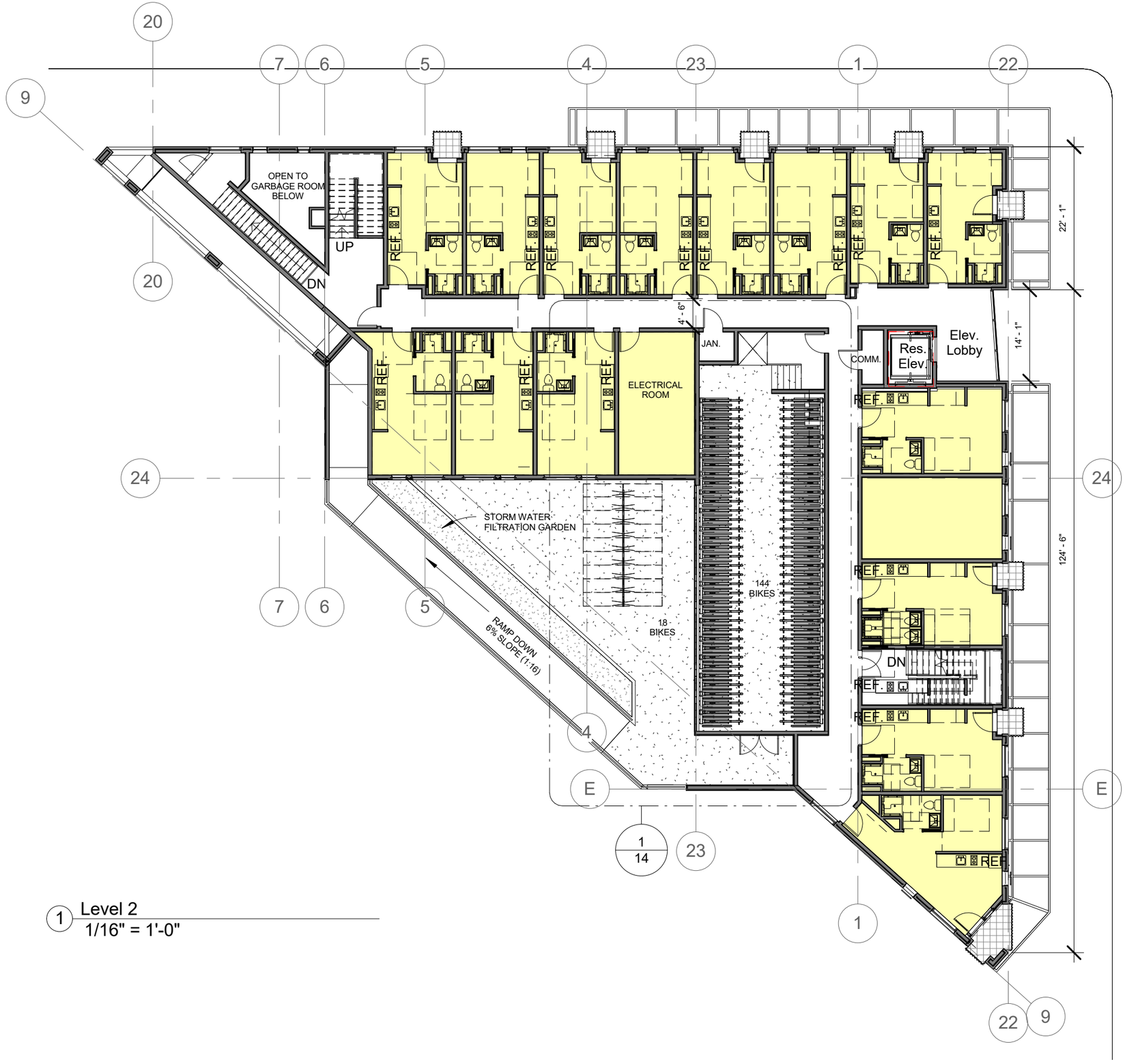
- -

2 38

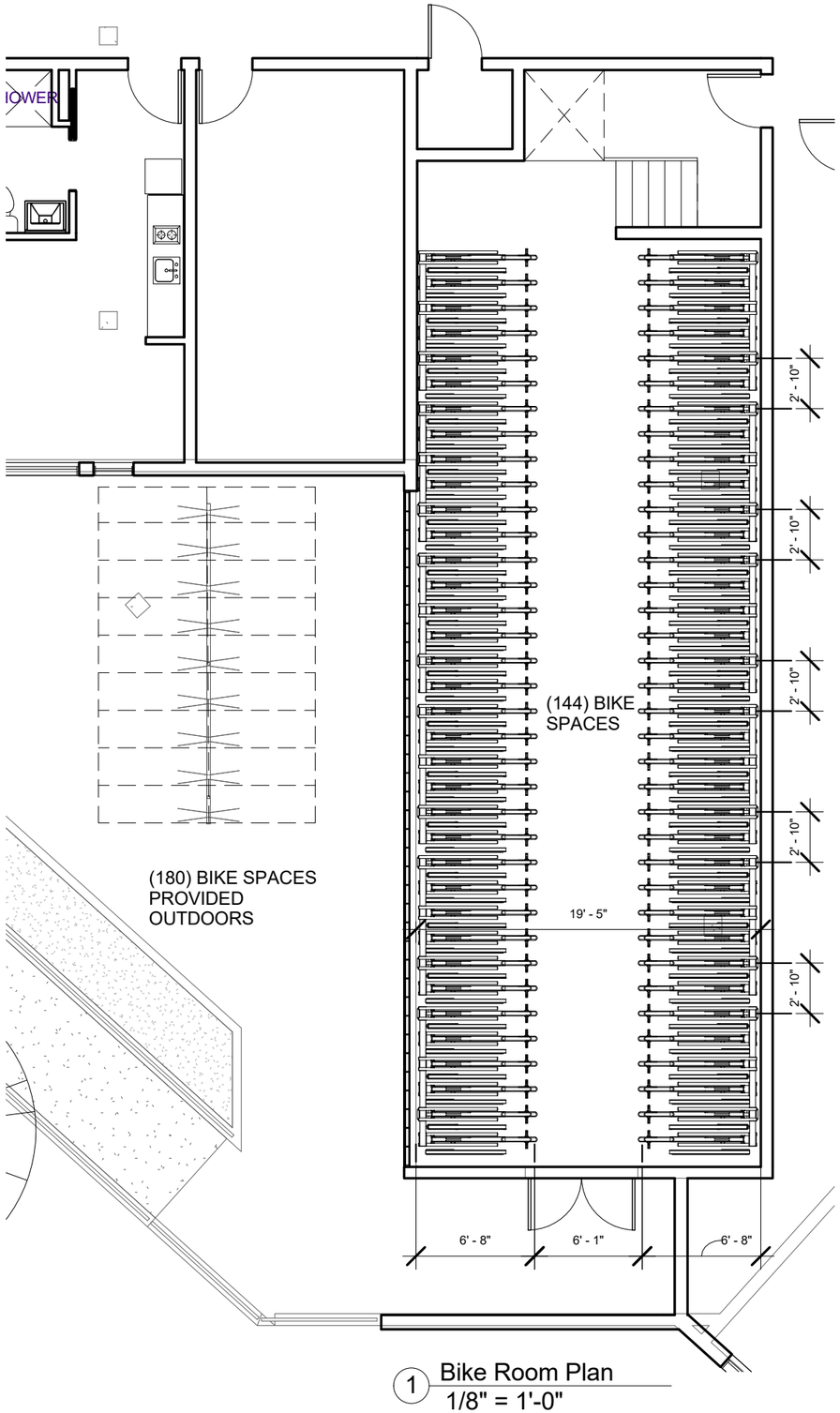
3 38



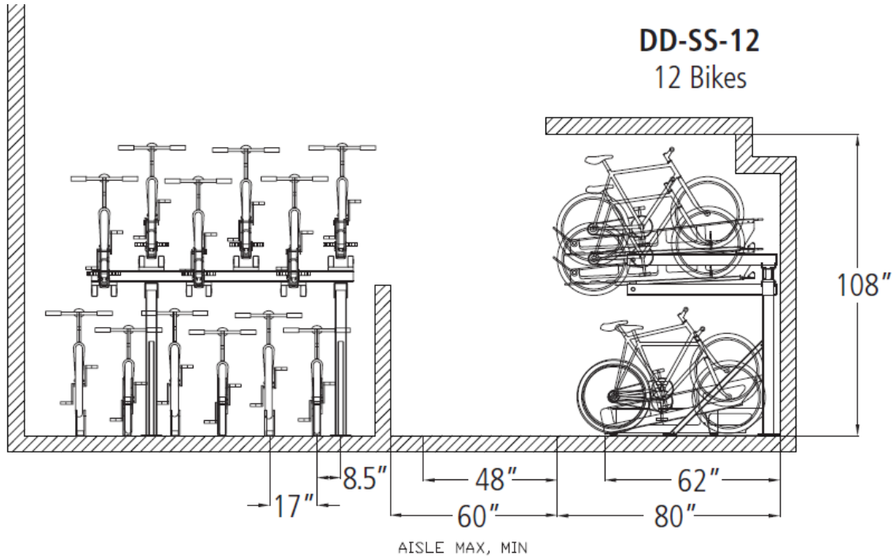
1 Level 1
1/16" = 1'-0"

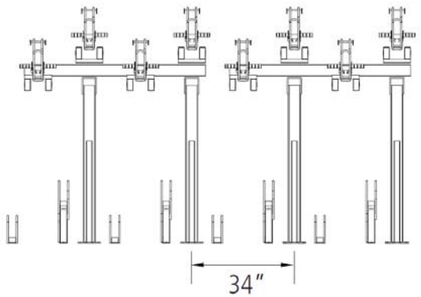


1 Level 2
1/16" = 1'-0"

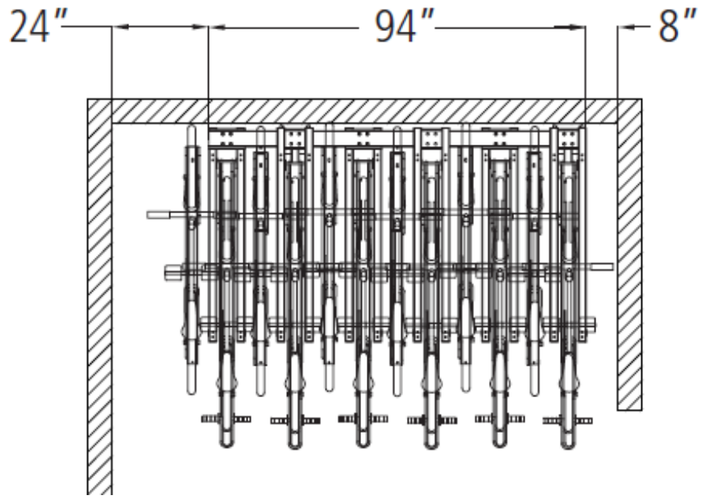


1 Bike Room Plan
1/8" = 1'-0"



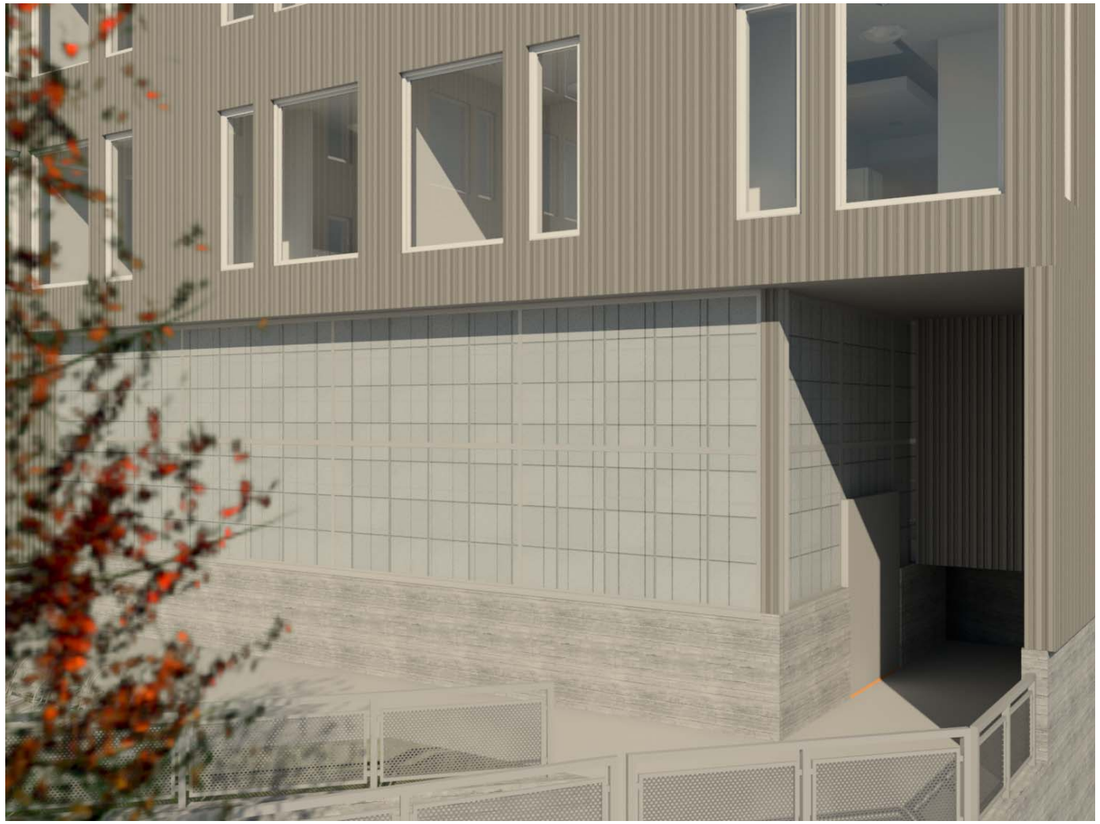


When placing multiple units in a row, the space between uprights of separate units should be 34" center to center.

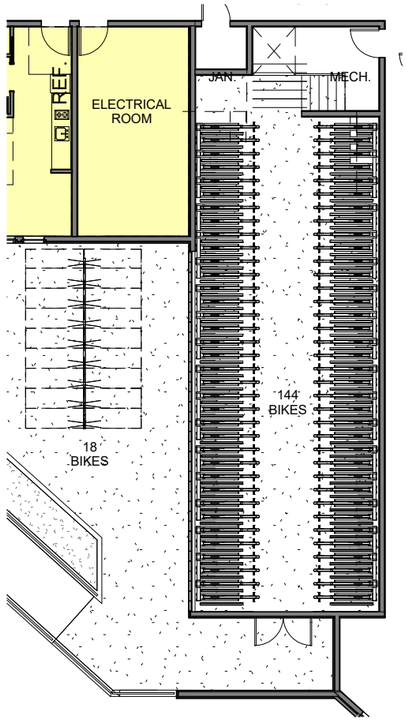


MODIFICATION REQUEST
1'-5" Requested Departure Width Vs. 2' Required.
Proposed Staggered Vertical Orientation allows for Closer Spacing with manufactured rack.

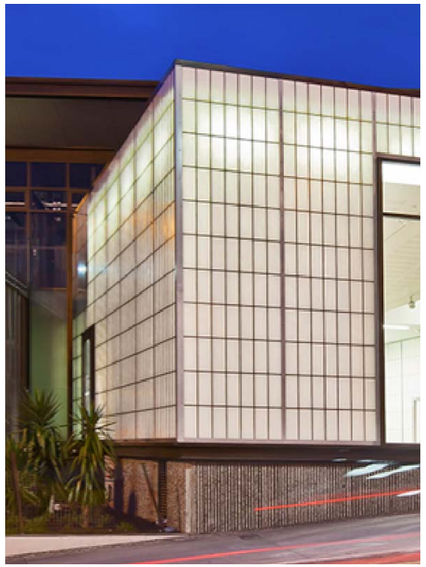
144 total bike parking spaces indoor
18 spaces outside in plaza
162 total = 108 x 1.5/unit



Bike Room Structure - Kalwall Clad

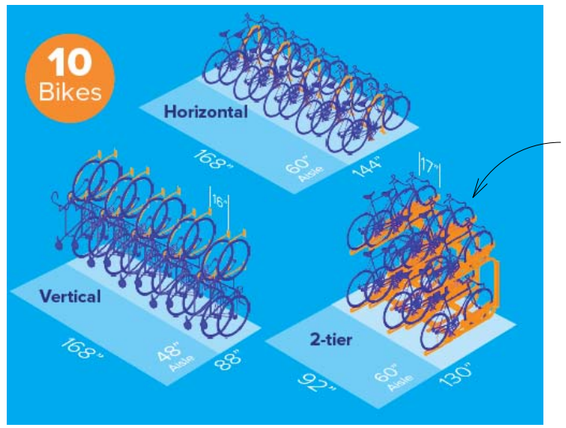


2 Bike Room
1/16" = 1'-0"

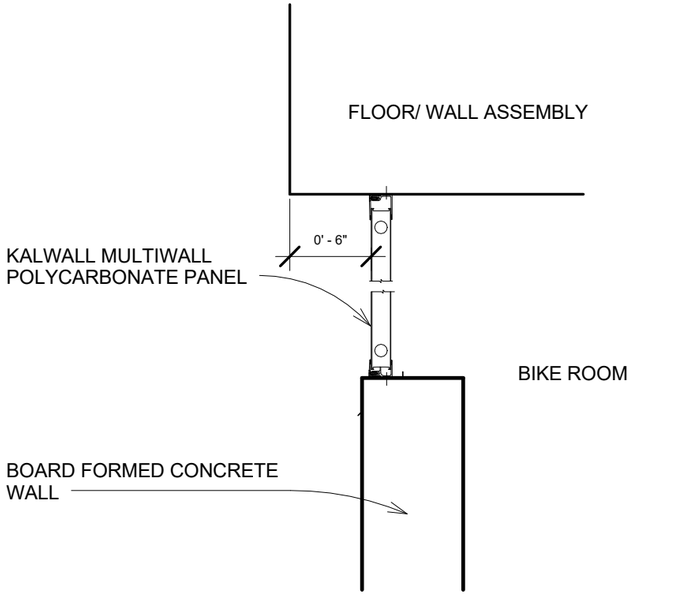


example of internally lit kalwall structure

'Dero Decker' Pull-down Tray Bicycle Parking

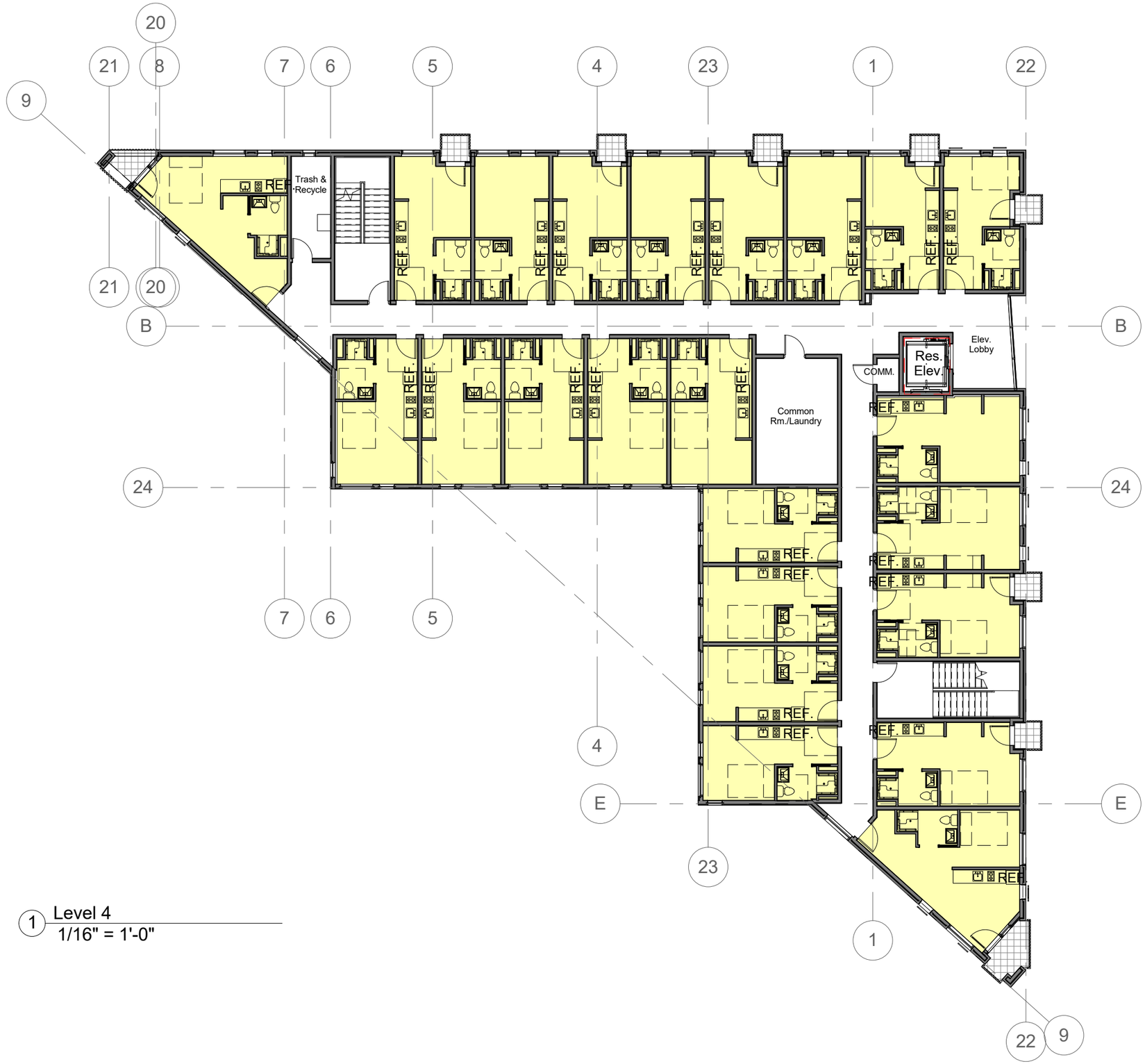


2-tier Bike Parking system proposed



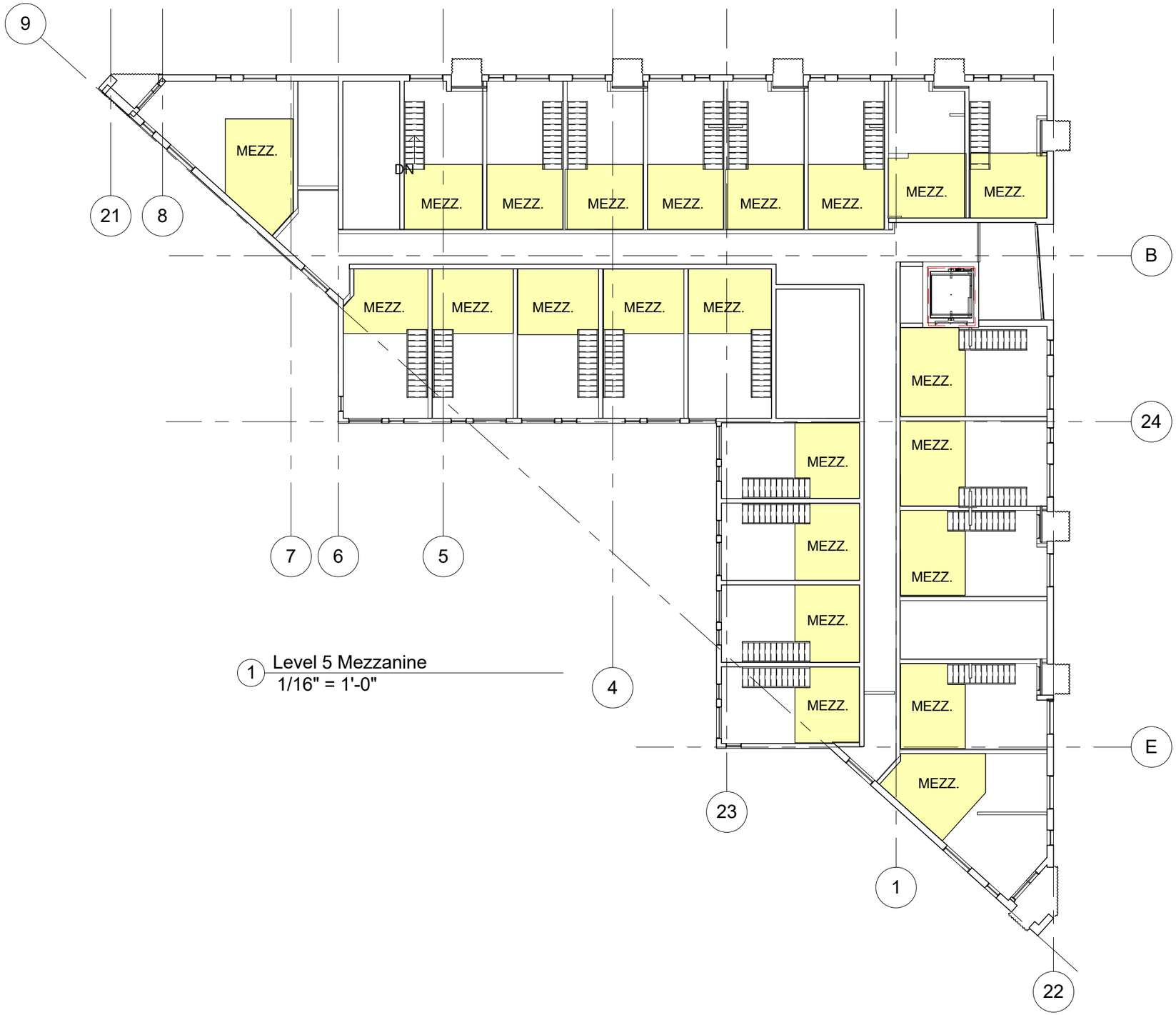
1 Kalwall Details
1" = 1'-0"

1 Level 3
1/16" = 1'-0"



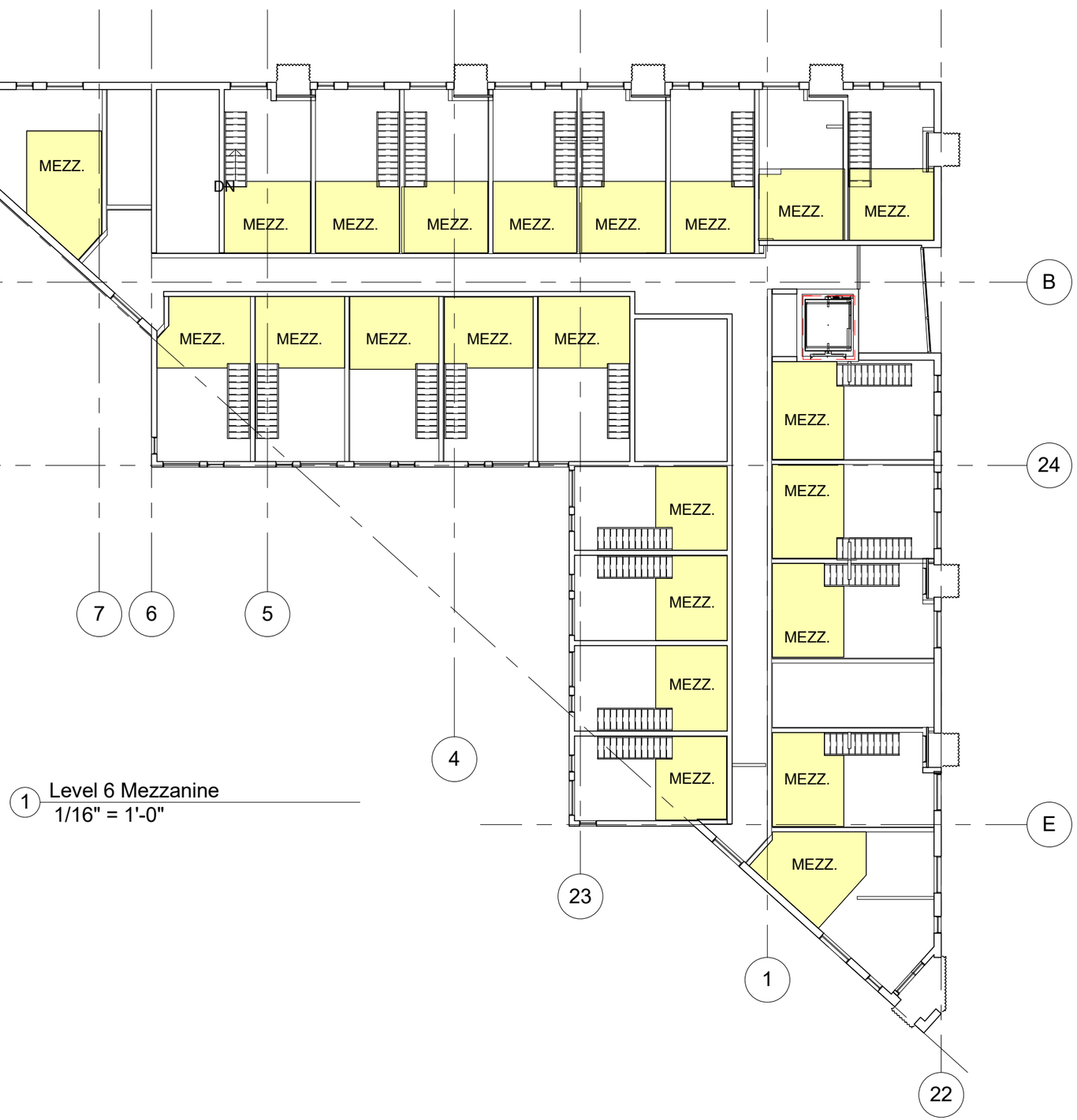
1 Level 4
1/16" = 1'-0"

1 Level 5
1/16" = 1'-0"



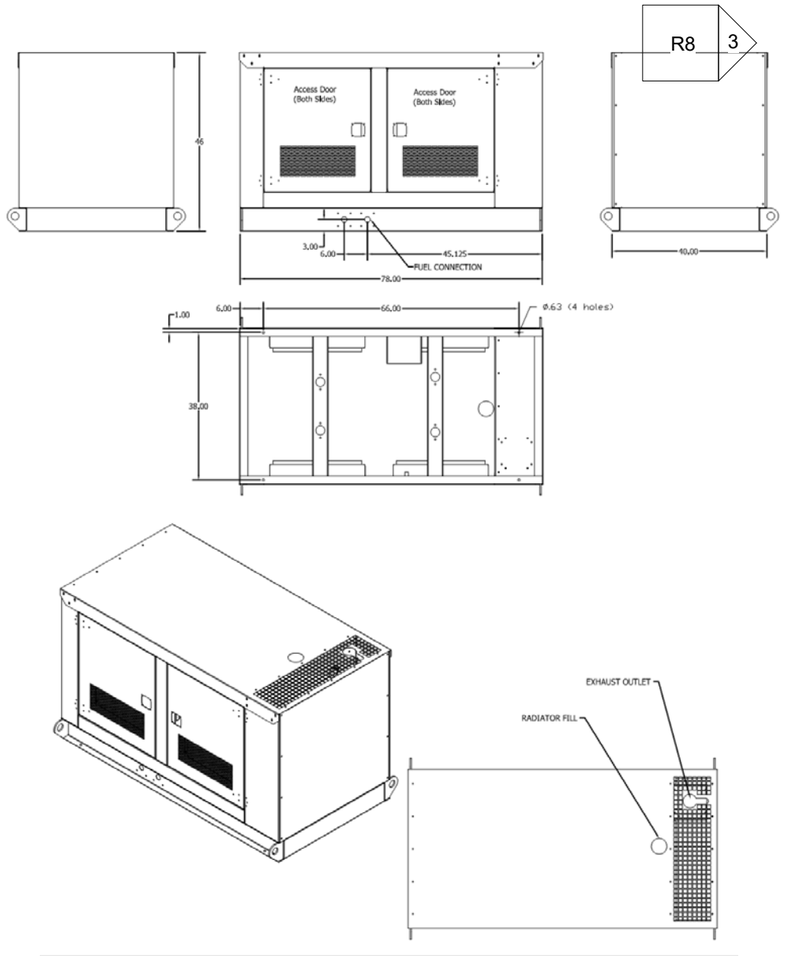
1 Level 5 Mezzanine
1/16" = 1'-0"


North Stair
Common Rm.
Res. Elev.
Elev. Lobby
Mech.
South Stair
REF.
R6
R5
R8
R7
R10
R4
27
38
Level 6
1/16" = 1'-0"

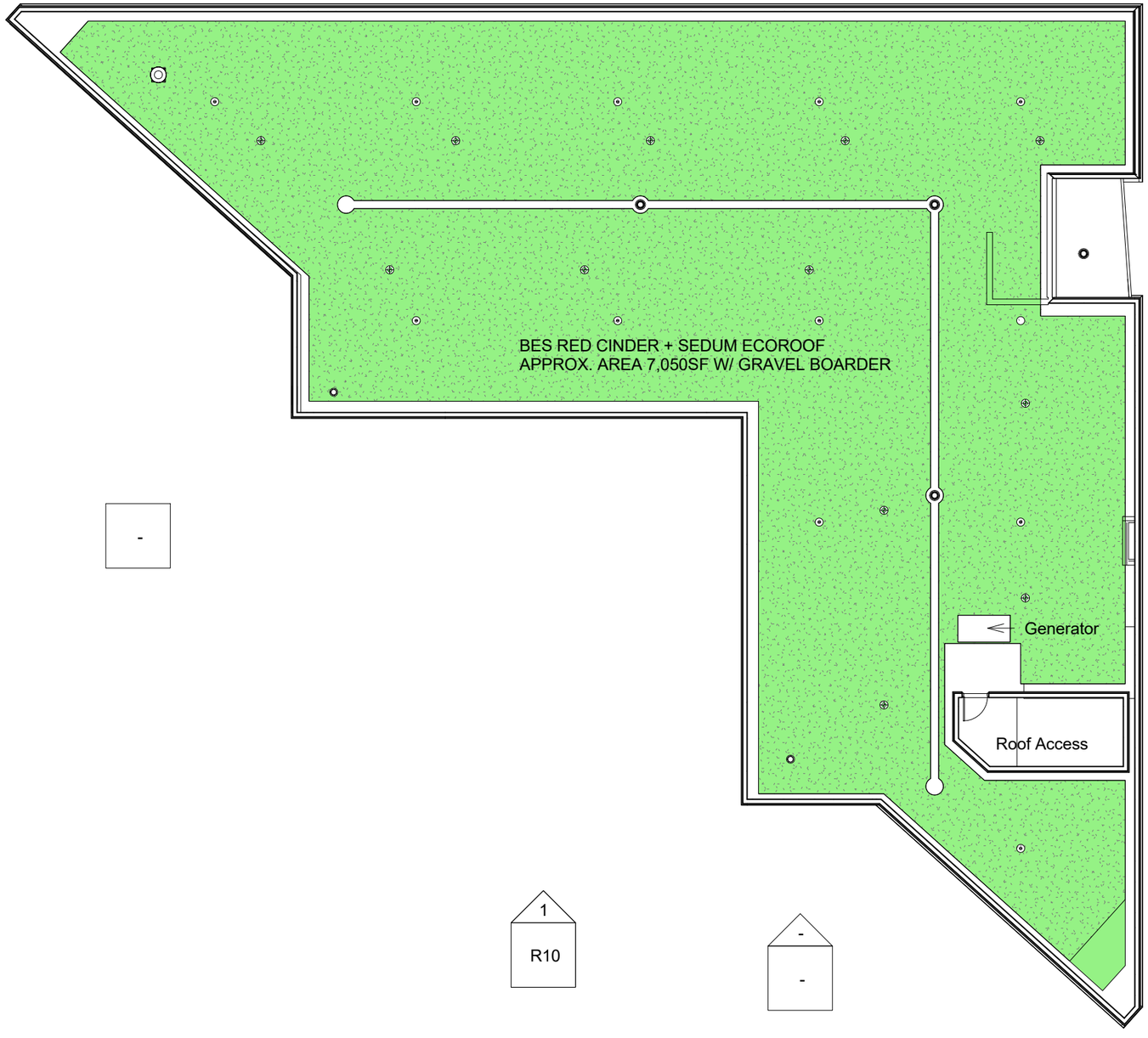


1 Level 6 Mezzanine
1/16" = 1'-0"

Example: Roof Mounted Generator



Preliminary Generator Drawings



R8 3

-

1 R5

1 27

1 R10

- -

2 38

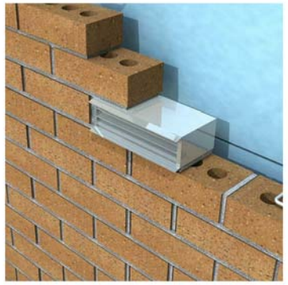
3 38

1 Grant Street Elevation
3/32" = 1'-0"

1 SW 4th Elevation
3/32" = 1'-0"

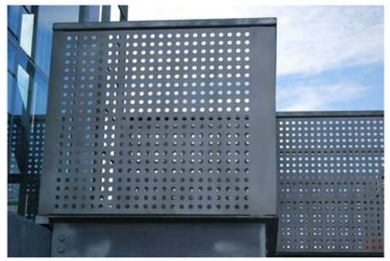
1 South Elevation
3/32" = 1'-0"

1 West Elevation
3/32" = 1'-0"

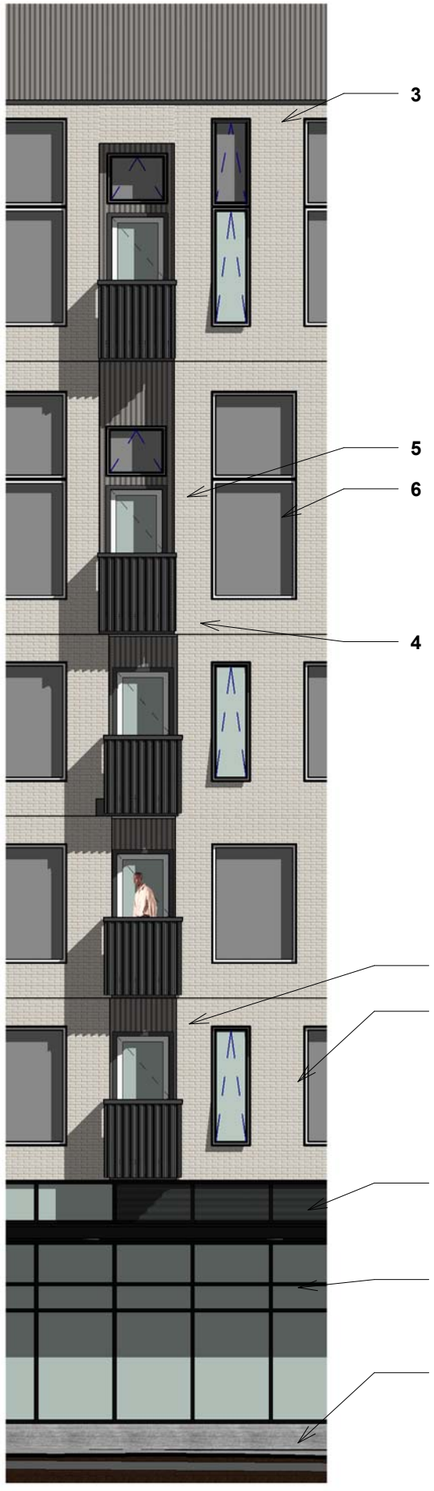


BRICK VENTS - PAINTED
TO MATCH BRICK

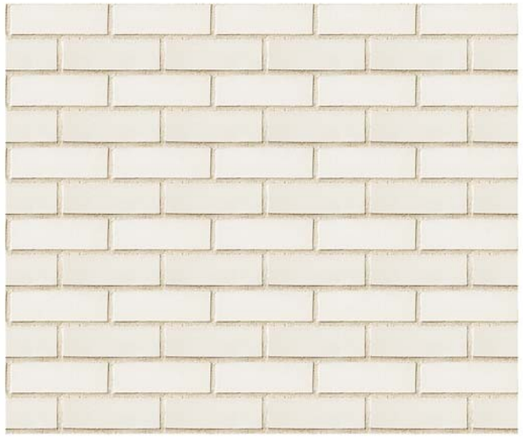
BRICK TO METAL
EXAMPLE OF SIDING
TRANSITION



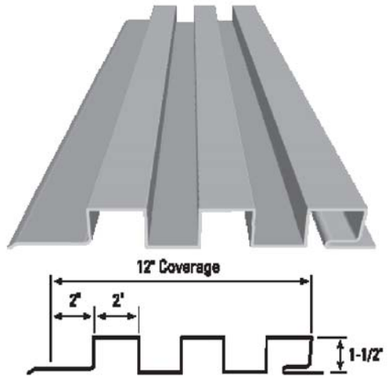
PERFORATED METAL PANEL
AT BIKE RAMP RAIL



1
BOARDFORM CAST-IN-PLACE CONCRETE
1X6, ROUGH-SAWN CEDAR BOARDS, STAGGERED ENDS



2
ALASKA WHITE, SMOOTH BRICK



3
CONCEALED FASTENER, 22 GA. VERTICAL METAL
SIDING

4
VERTICAL PERFORATED METAL PANEL
MATCH PROFILE OF SIDING PANEL, 22 GA.

PANTONE
390 C

7A
GRILL PANEL
IN STOREFRONT

7
2" STOREFRONT
DARK BRONZE/BLACK

6
WHITE VINYL WINDOW
VPI ENDURANCE SERIES

5
FULL LITE METAL DOOR
PAINT TO MATCH SIDING

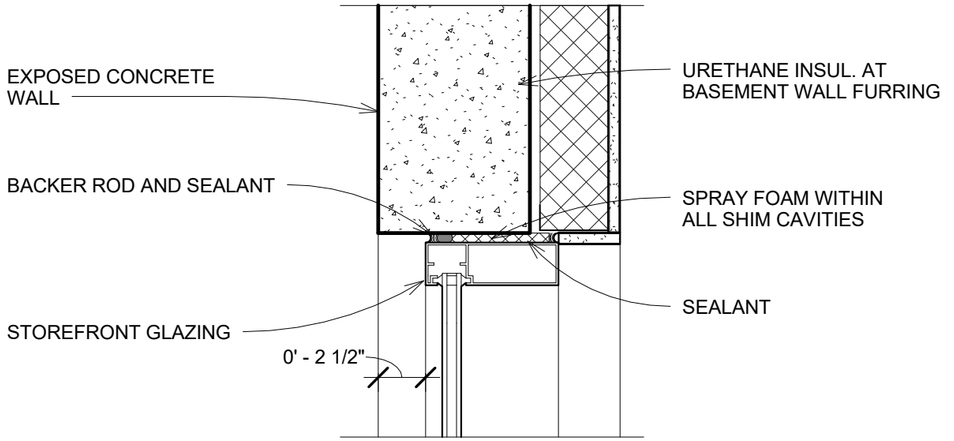
DESCRIPTION OF MATERIALS
The choice and use of exterior building materials are used to emphasize the massing, scale and pedestrian experience of the structure. Materials such as brick, metal, and concrete have a honest, timeless quality that complement and tie into the Portland palette.

VIEW AT EXIT FROM HOUSING ABOVE

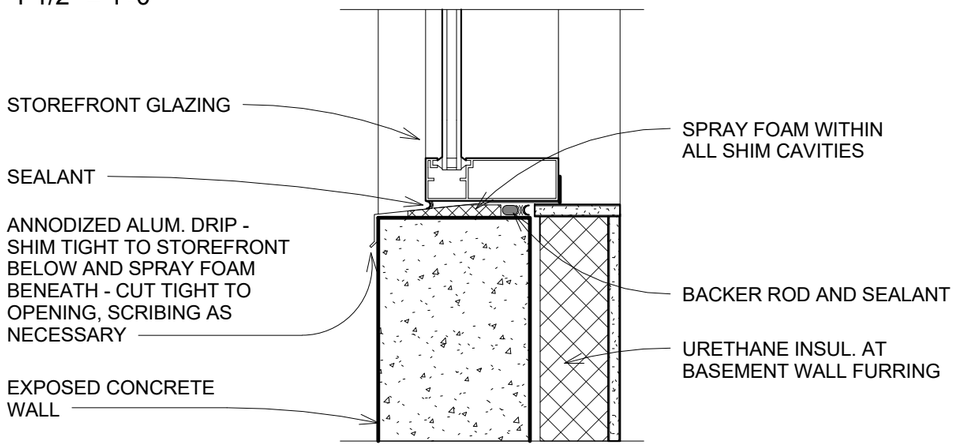
ENTRANCE TO HOUSING LOBBY

NIGHT VIEW OF CORNER OF 4TH AND GRANT

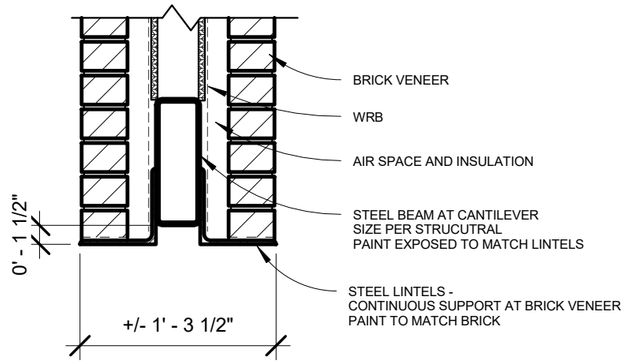

6th Ave.
City Center



1 STOREFRONT HEAD @ CONCRETE
1 1/2" = 1'-0"



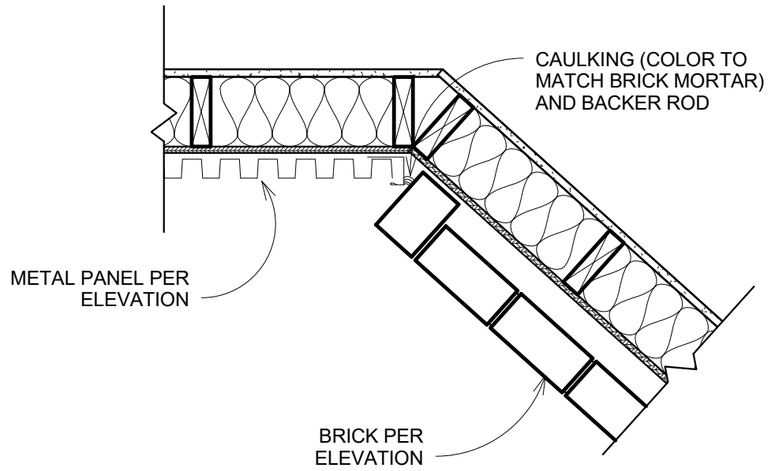
2 STOREFRONT SILL @ CONCRETE
1 1/2" = 1'-0"



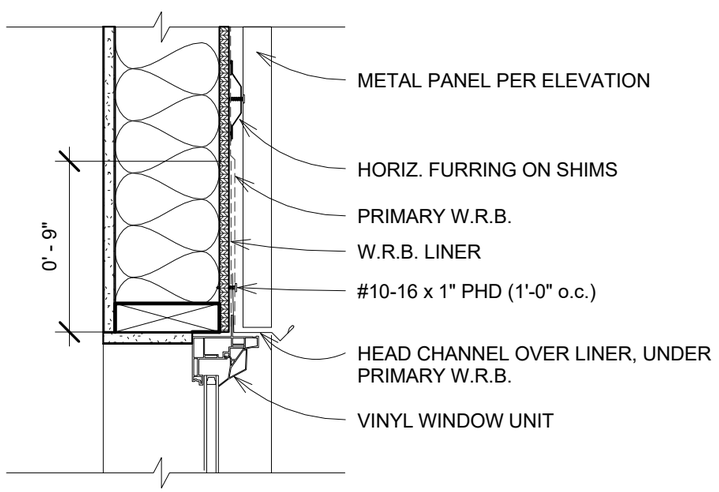
1 BRICK WALL AT CANTILEVER BEAM
1" = 1'-0"

VIEW AT NORTHWEST CORNER BIKE GATE / ENTRY

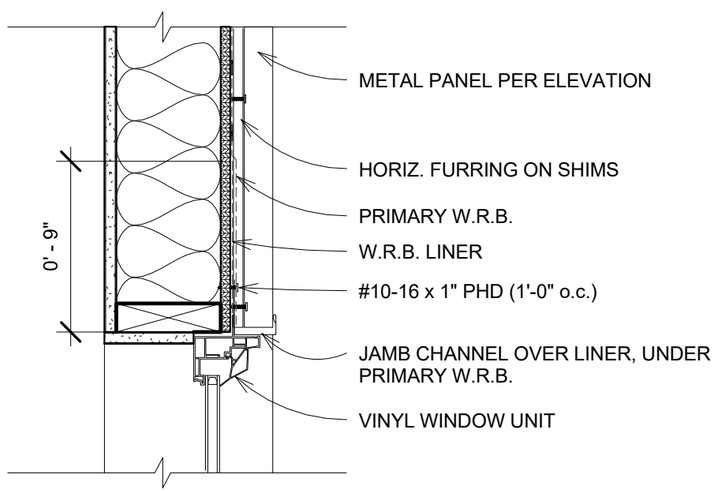
VIEW OF NORTHWEST CORNER



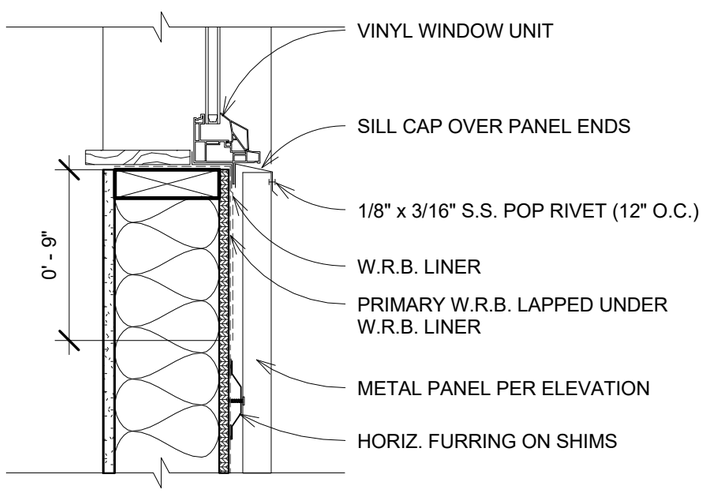
4 BRICK METAL PLAN TRANSITION
1" = 1'-0"



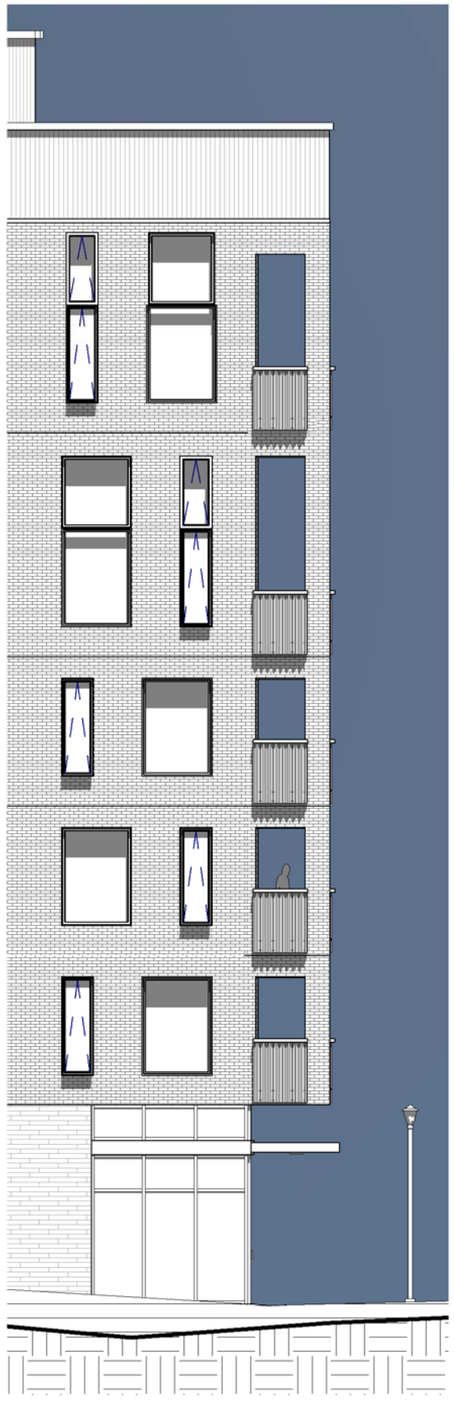
1 WINDOW HEAD AT METAL PANEL
1 1/2" = 1'-0"



2 WINDOW JAMB AT METAL PANEL
1 1/2" = 1'-0"

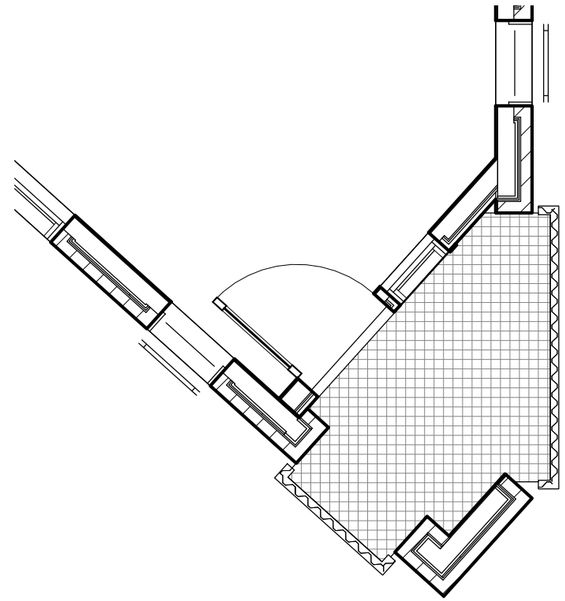


3 WINDOW SILL AT METAL PANEL
1 1/2" = 1'-0"



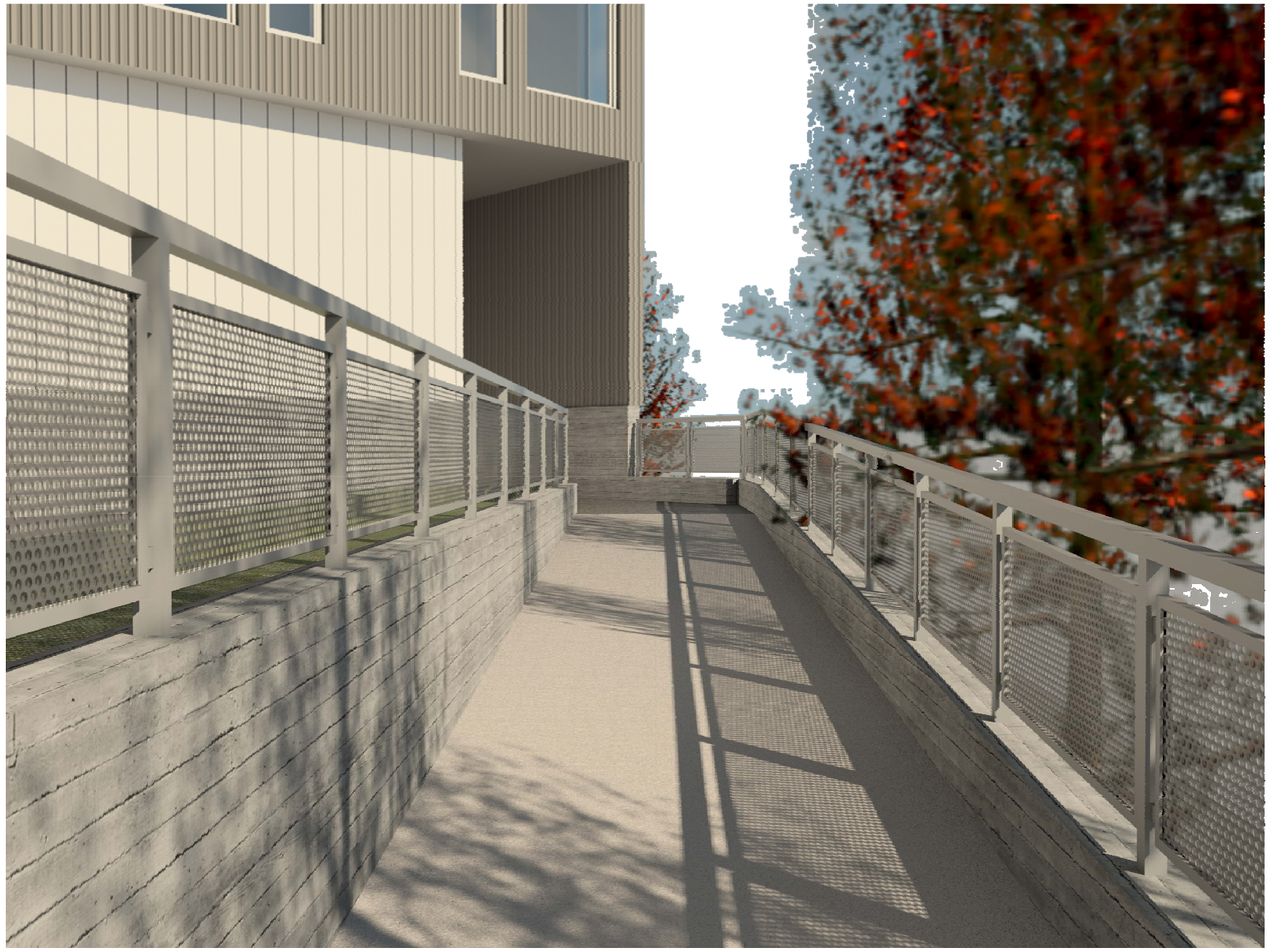
3 Partial Corner Elevation South Balcony
3/32" = 1'-0"

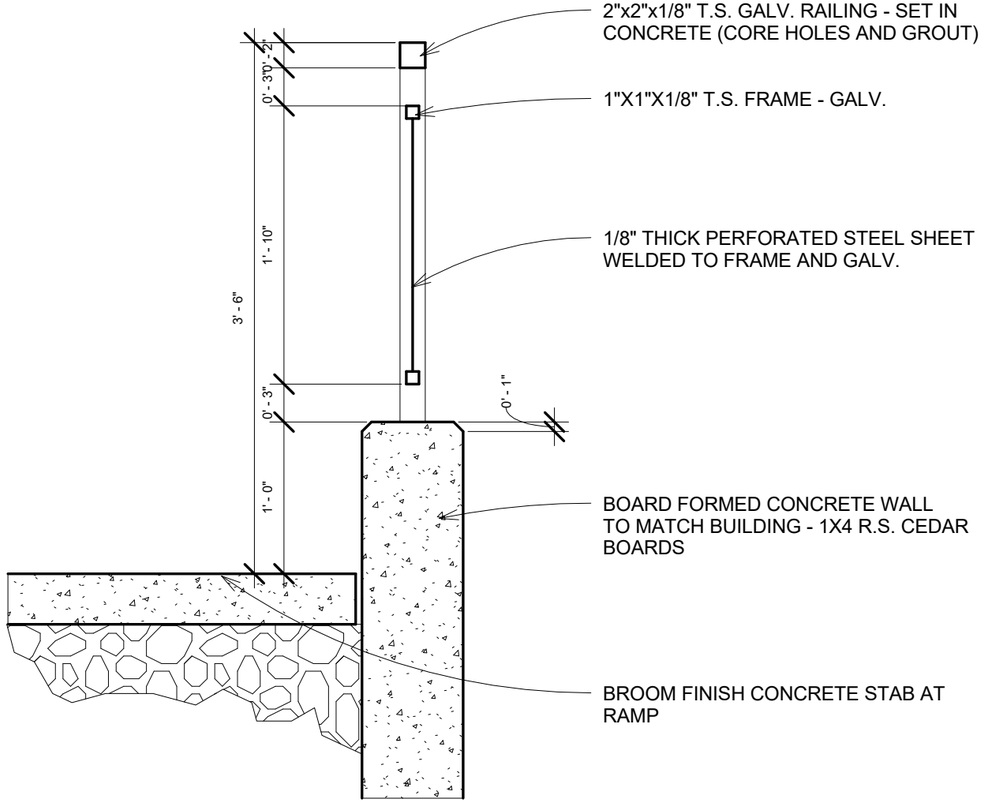
2 Partial Elevation South Balcony
3/32" = 1'-0"



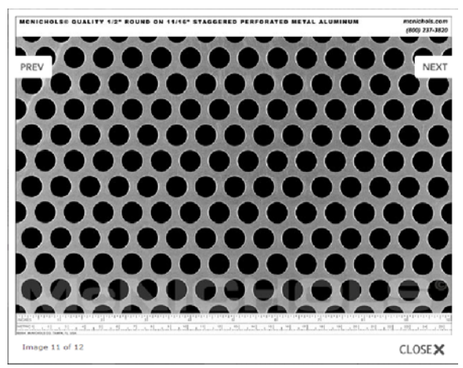
1 Corner Balcony
1/4" = 1'-0"

4 Balcony Perspective





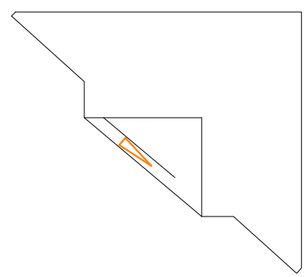
1 Bike Ramp Typ. Railing
1" = 1'-0"

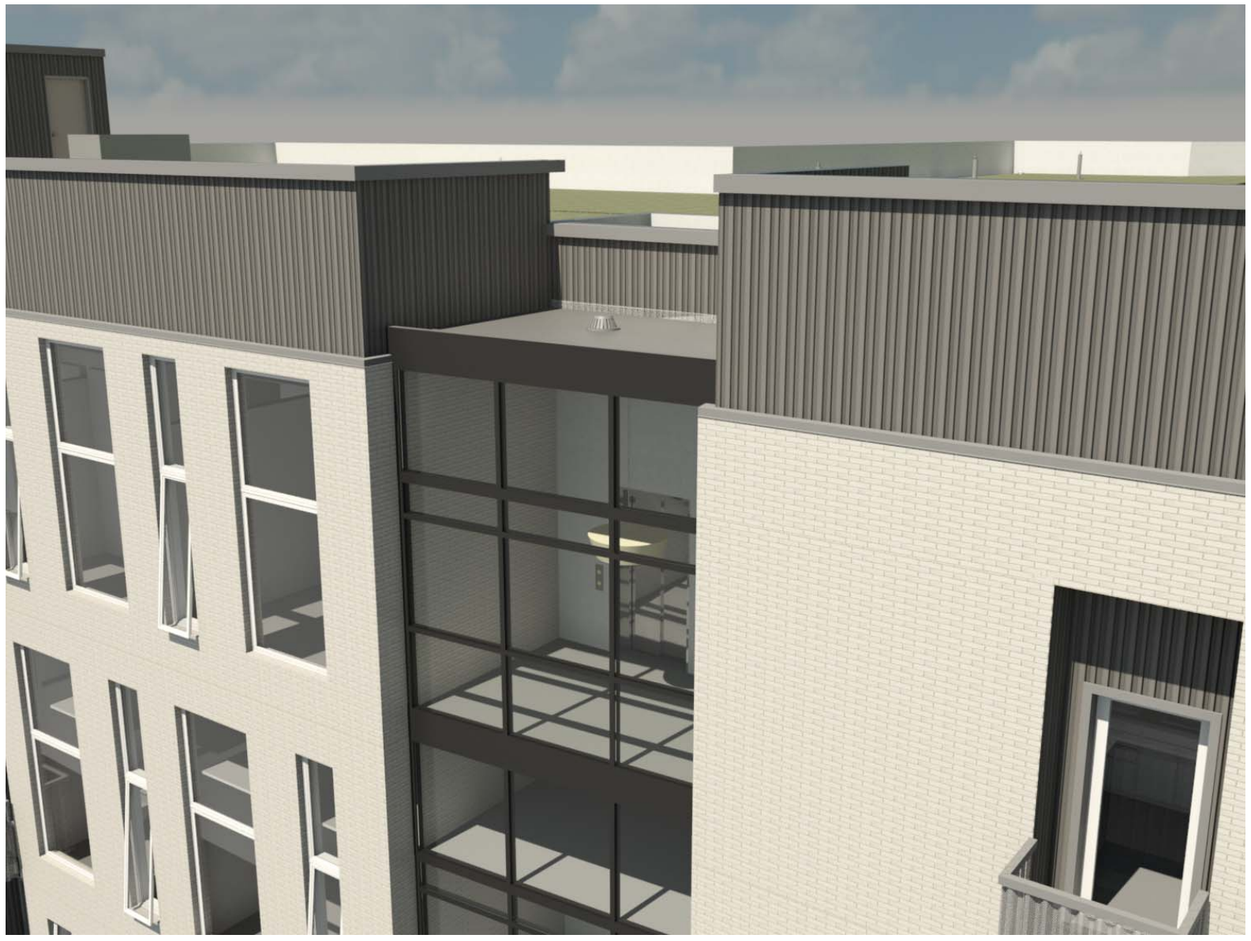


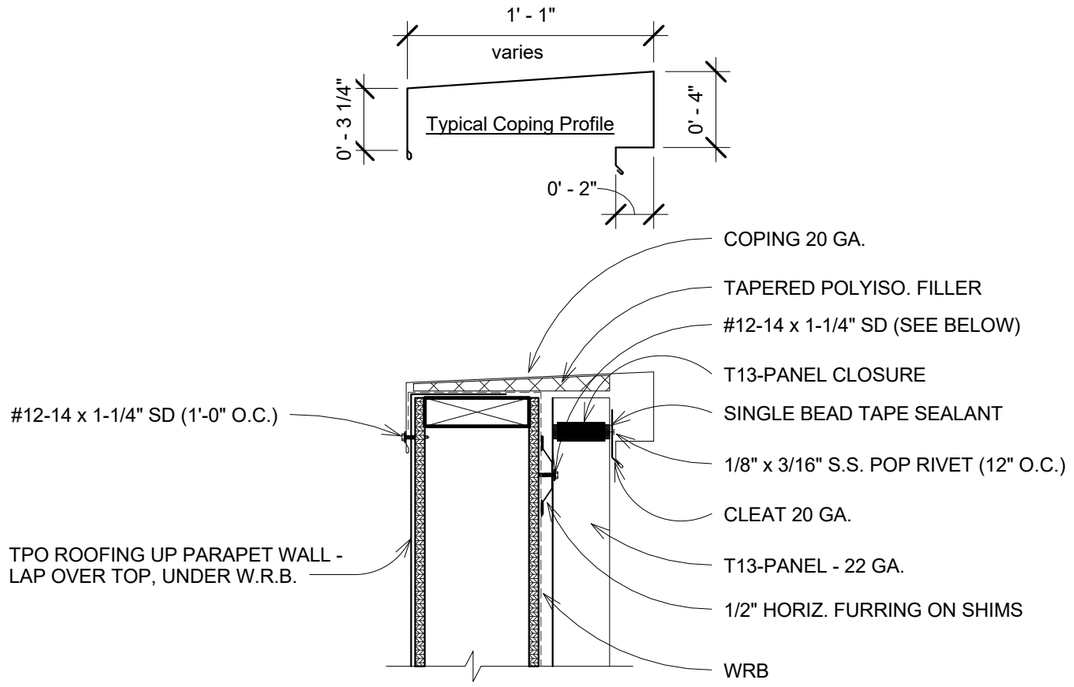
1/2" Round on 11/16" Staggered Spacing,
Steel Perforated Panel - mcnichols.com

The revised bicycle storage access path consists of a low slope ramp along the south facade. The effects of this ramp are numerous:

1. **Activity is introduced along the south facade at the previously vacant foundation wall.**
2. **An additional form is introduced with the detail of the railing providing visual interest.**
3. **The height of the foundation wall facing the I-405 freeway has been minimized.**
4. **The 6' width access provides ample room for bicyclists to exit and enter safely.**

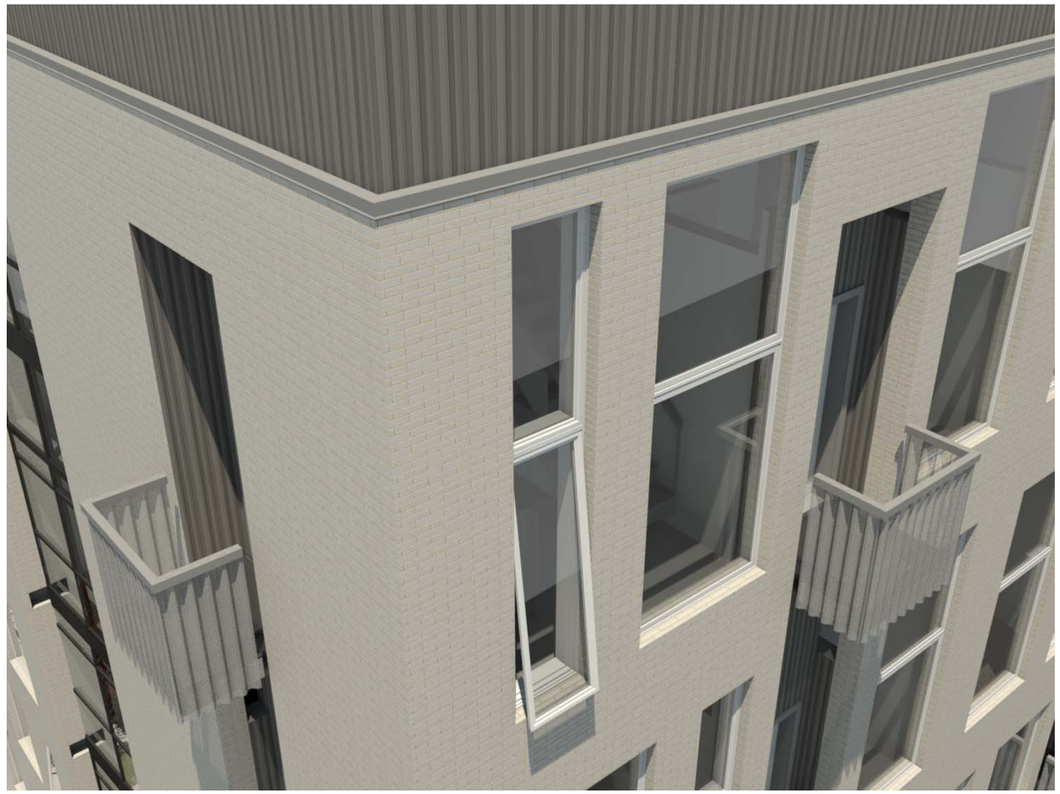


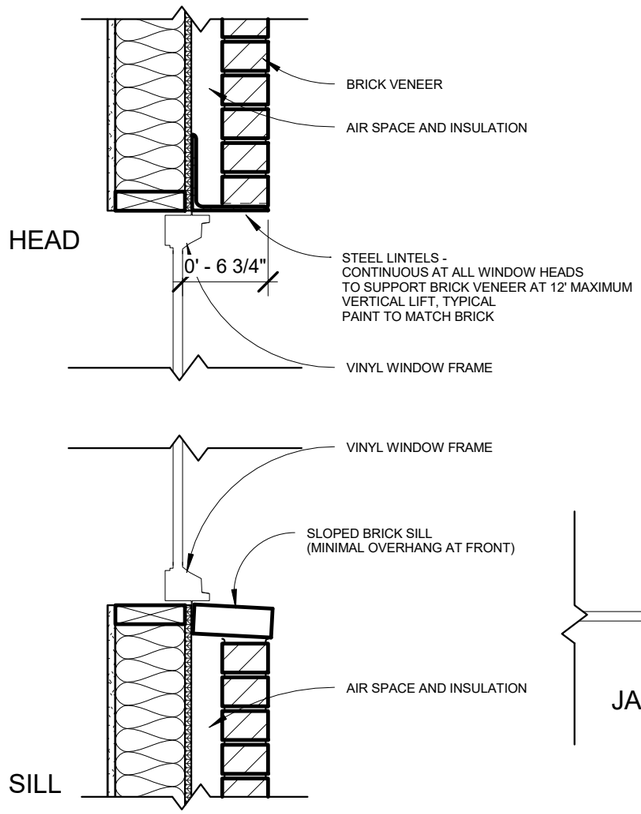




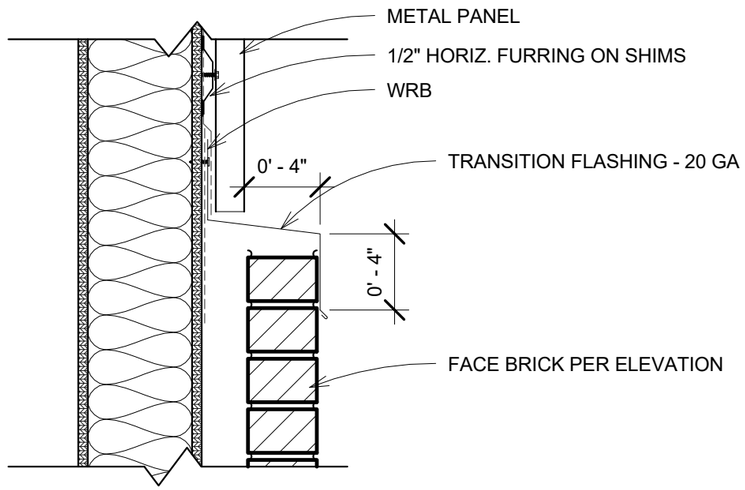
METAL COPING AT PARAPET - TPO
INTERIOR

1 1 1/2" = 1'-0"





2 VINYL WINDOW BRICK SIDING
1" = 1'-0"



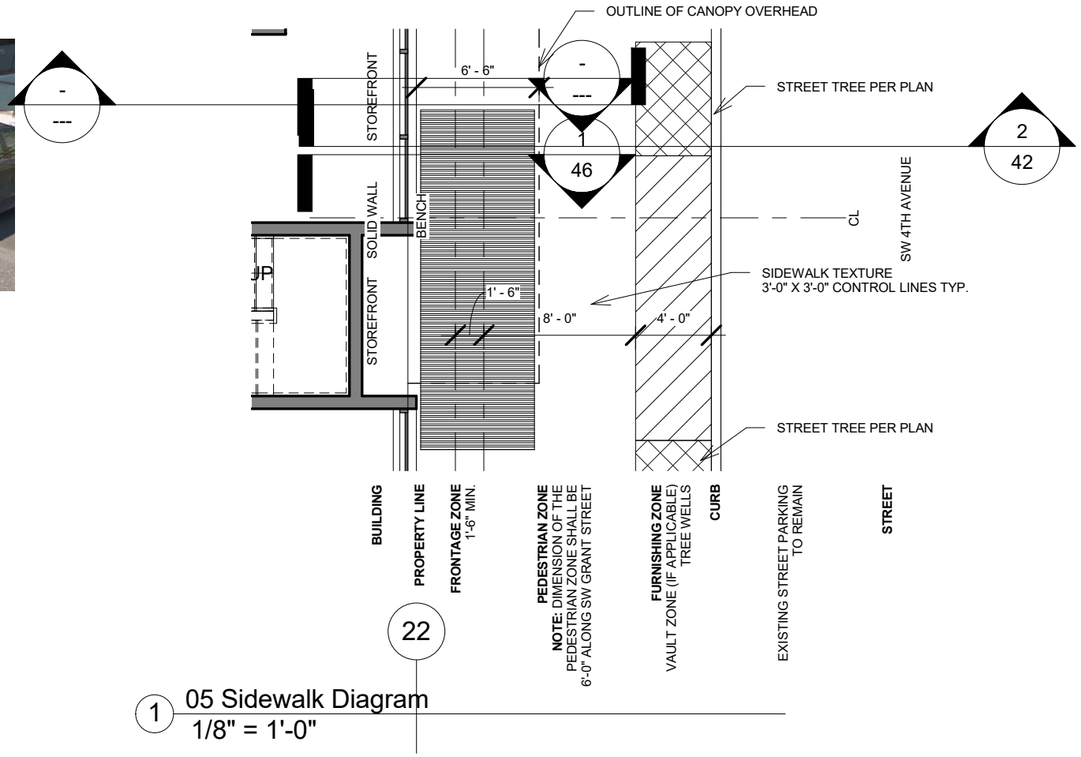
1 BRICK TO METAL TRANSITION
1 1/2" = 1'-0"

EXAMPLE BIKE RACK

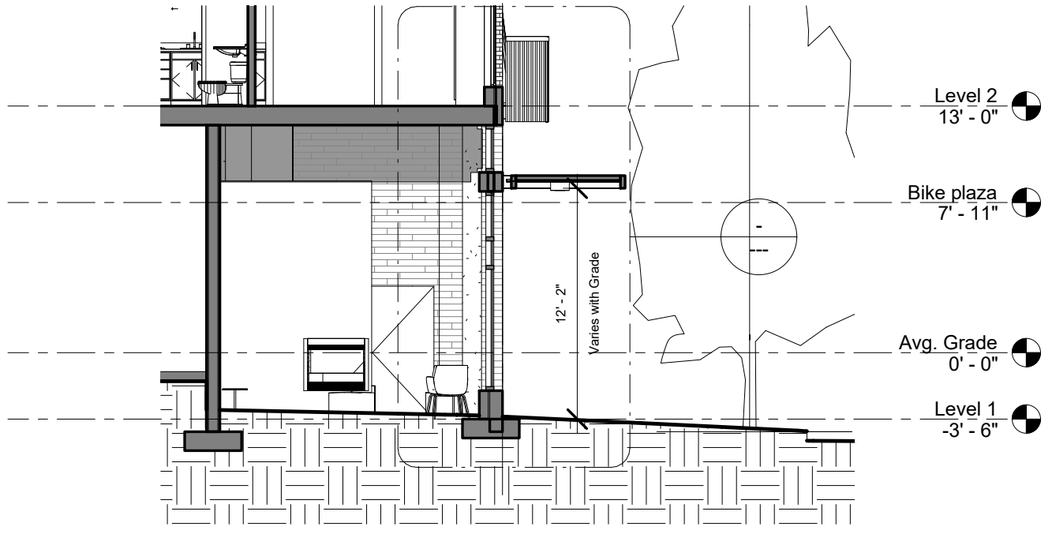
BIKE RACK ADJACENT TO SITE ON SW 4TH

EXAMPLE SITE BENCH

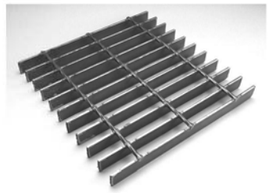
EXAMPLE STEEL CANOPY



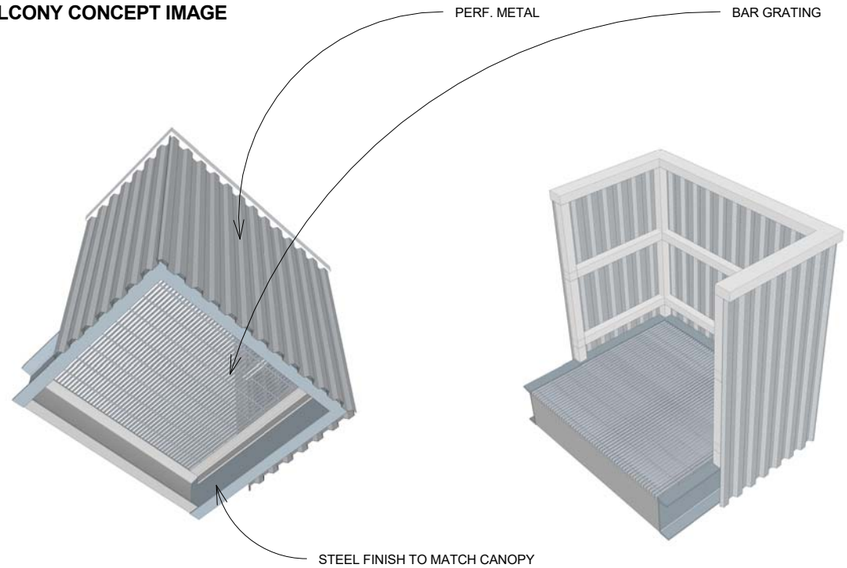
1 05 Sidewalk Diagram
1/8" = 1'-0"



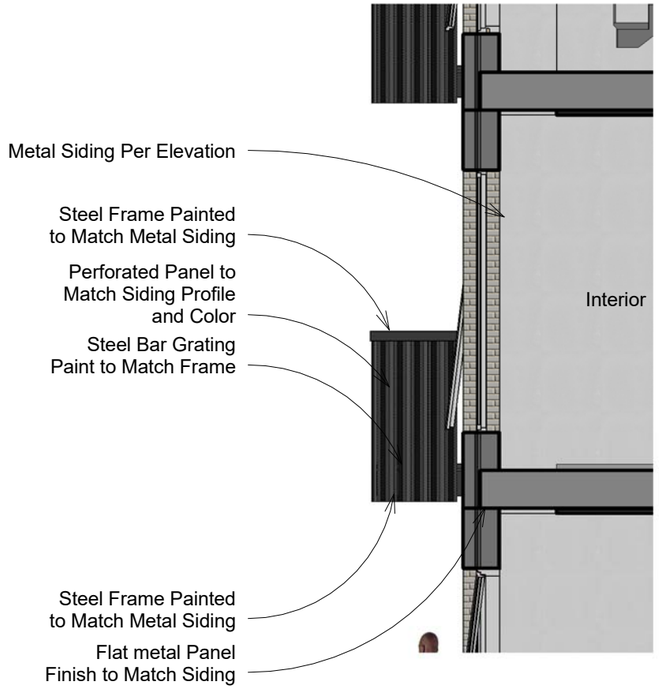
2 Section 1
1/8" = 1'-0"



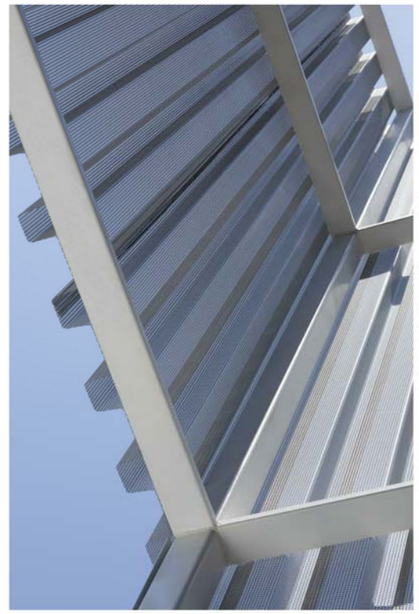
BALCONY CONCEPT IMAGE



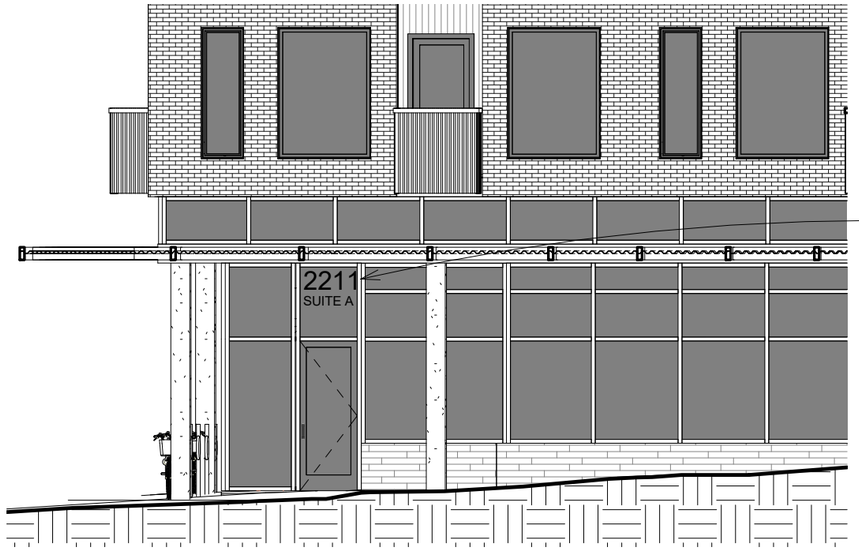
BALCONY MODEL VIEWS



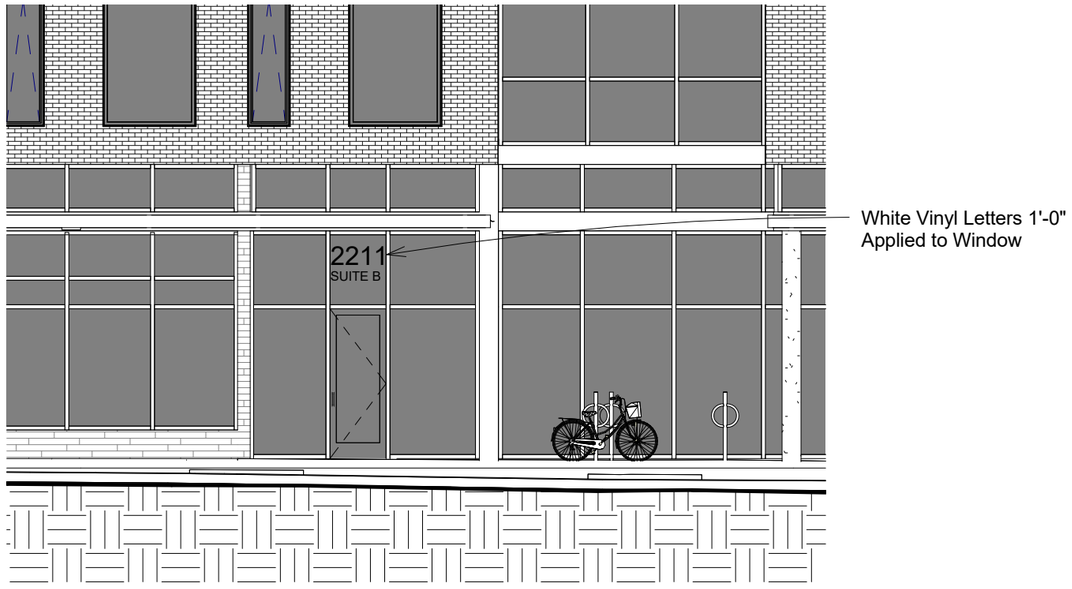
1 Building Section
1/4" = 1'-0"



EXAMPLE BALCONY MATERIALS WITH PAINTED METAL FRAME



1 Commercial Signage
1/8" = 1'-0"



2 Residential Signage
1/8" = 1'-0"

GARAGE DOOR CONCEPT IMAGE

OBSCURED GLAZING

ALUMINUM FRAME AND COLOR TO MATCH ADJACENT STOREFRONT

(2) ROWS SOLID PANEL - COLOR MATCH FRAME

PARTIAL RENDERING

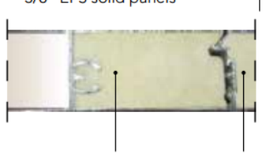
ALUMINUM DOOR SYSTEMS MODELS 521

Standard features at a glance

Section thickness	1 3/4" (45 mm)
Maximum standard width	26'2" (7976 mm)
Maximum standard height	20'1" (6121 mm)
Material	Extruded 6061-T6 aluminum
Standard finish	204R-1 clear anodized (painted white at no charge)
Center stile width	2 11/16" (68 mm)
End stile width	3 5/16" (85 mm)
Top rail width	2 3/8" (60 mm) or 3 3/4" (95 mm)
Top intermediate rail width	2 1/8" (54 mm)
Bottom intermediate rail width	1 19/32" (40 mm)
Bottom rail width	3 3/4" (95 mm) or 4 1/2" (114 mm)
Weatherseals	Bottom, flexible PVC
Standard springs	10,000 cycle
Track	2" (51 mm)
Mounting	Angle
Operation	Manual pull rope
Hinges and fixtures	Galvanized steel
Lock	Galvanized, interior-mounted single unit
Color palette	197 powder coat finishes

Optional polyurethane insulation for stiles and rails up to 24' wide

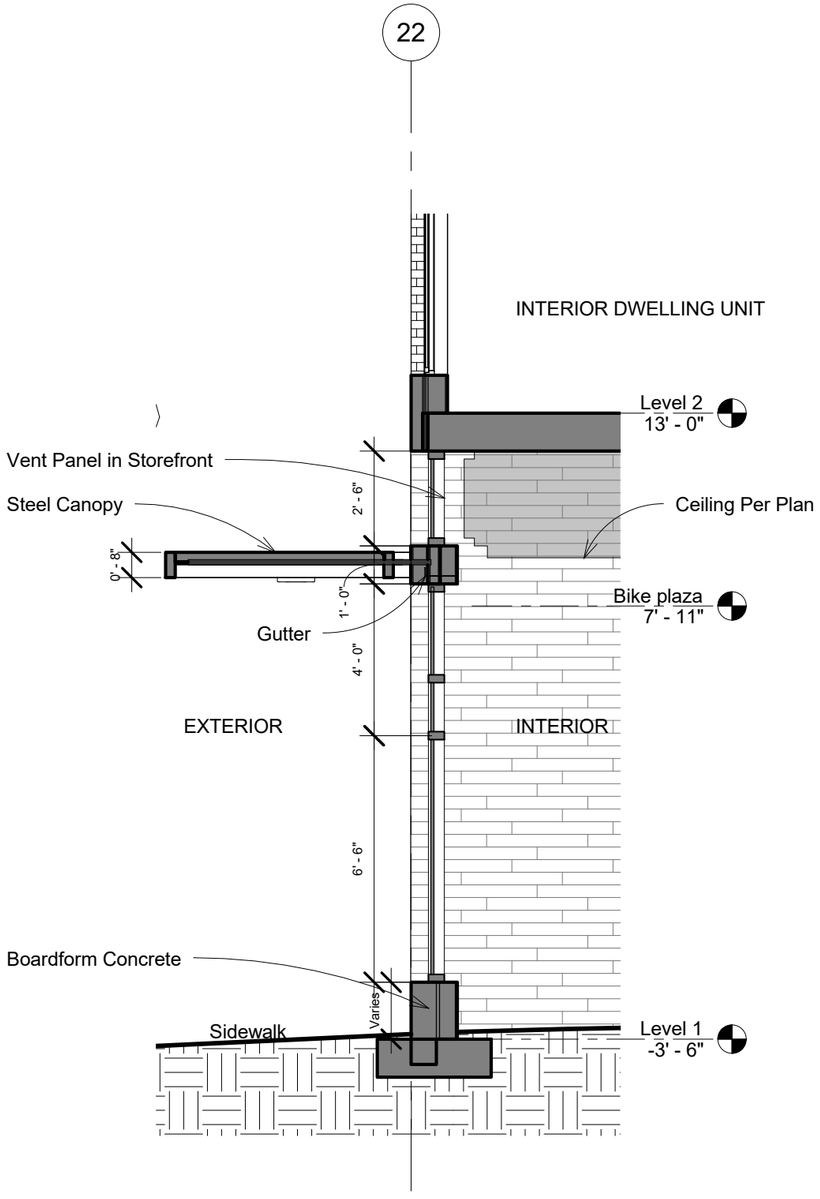
1/2" insulated glazing unit	Door R-value (K m²/W)
DSB- clear, tempered, obscure	2.87
Clear polycarbonate	2.93
DSB - Solar Bronze	3.17
DSB - Low E coating	3.43
SolarBan 70XL argon filled	4.09
Multi-wall polycarbonate	**Door R-value** (K m²/W)
1/4" tick unit	2.75
3/8" tick unit	3.21
5/8" tick unit	3.48
Insulated panels	**Door R-value** (K m²/W)
3/8" EPS solid panels	2.60



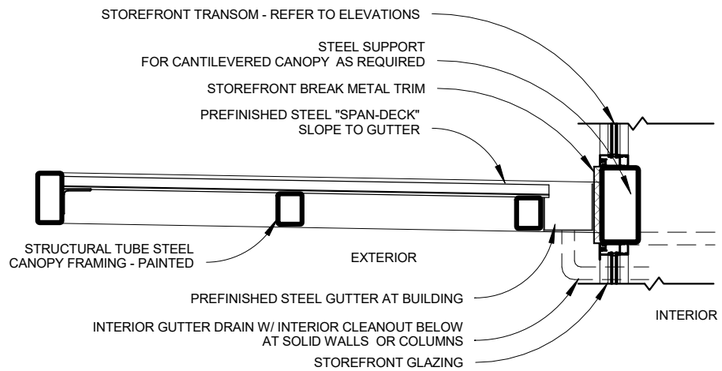
Polyurethane filled rails and stiles

*R-value: Overhead Door Corporation uses a calculated door section R-value for our insulated doors.

MODIFICATION REQUEST -Granted
Requested Departure for 20' Setback of Garage Door - Granted by PBOT.

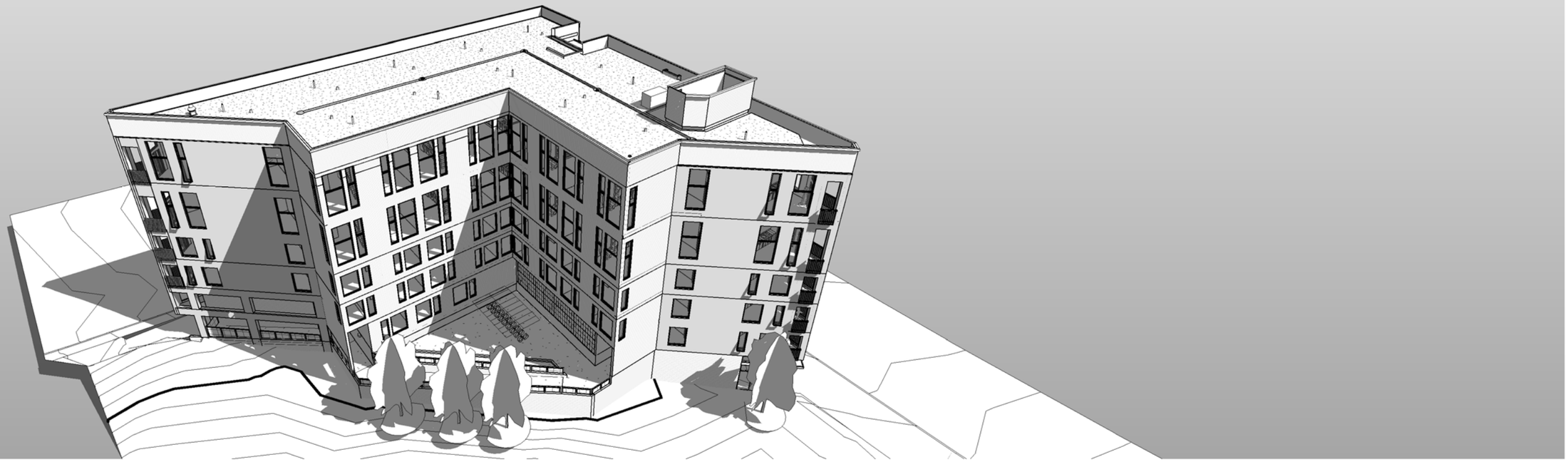


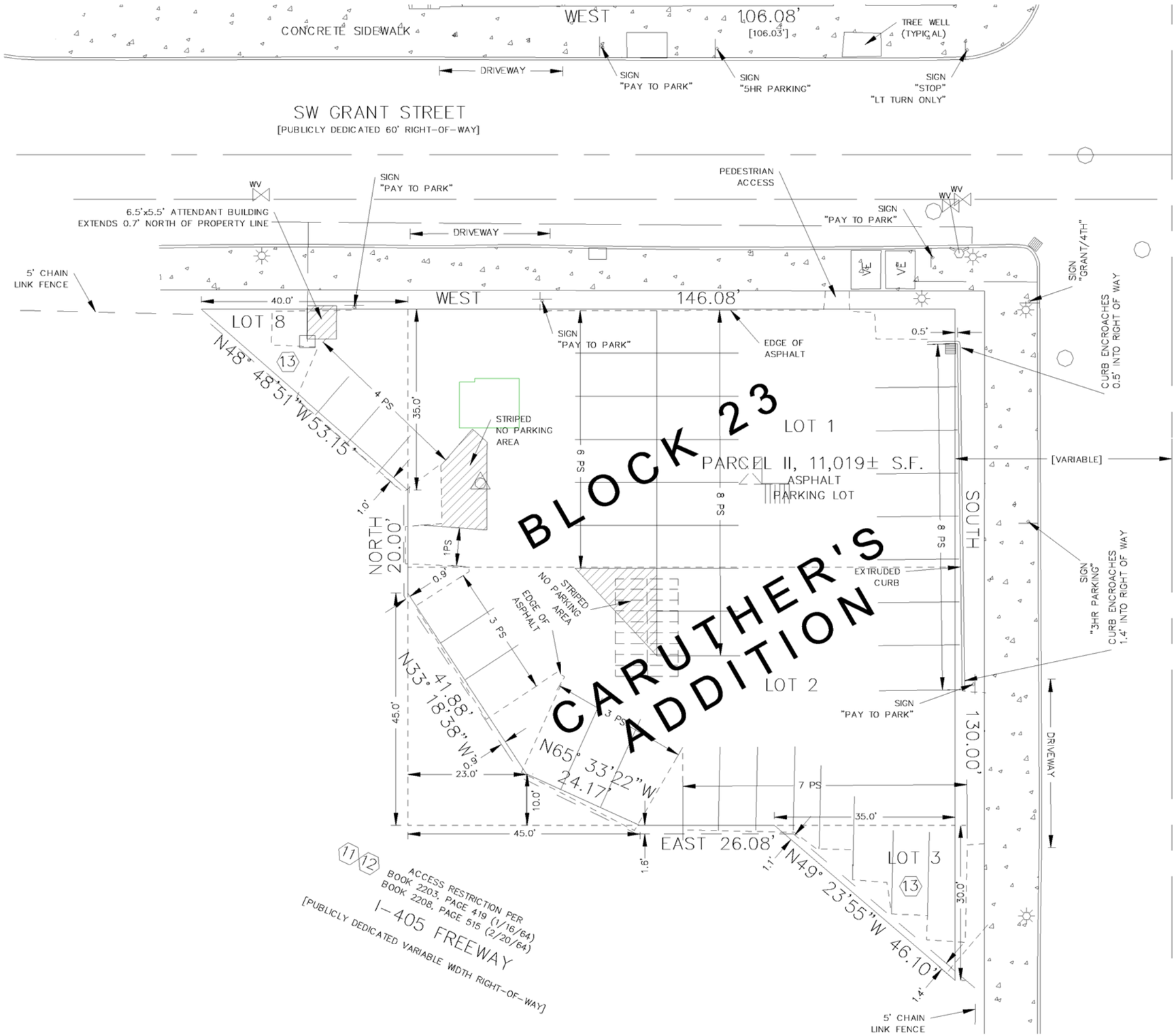
1 Section Detail @ Storefront
1/4" = 1'-0"



2 Canopy Detail
1/2" = 1'-0"

Appendix





Property Description

parcel II:
Lots 1 and 2, block 23, Caruthers addition to Caruthers addition to the city of Portland, in the city of Portland, county of Multnomah and state of Oregon; excepting the following described portion of lot 2: beginning at the southwest corner of said lot 2; thence easterly along the southerly line of said lot 2, a distance of 45 feet; thence northwesterly in a straight line to a point 10 feet northerly of (when measured at right angles to) the southerly line of said lot 2, and 23 feet easterly of (when measured at right angles to) the westerly line of said lot 2; thence northwesterly in a straight line to the westerly line of said lot 2 at a point 45 feet northerly of the place of beginning; thence southerly along said westerly line to the place of beginning.

Also a parcel of land lying in lot 3, block 23, Caruthers addition to Caruthers addition to the city of Portland, in the city of Portland, county of Multnomah and state of Oregon, the said parcel being described as follows: beginning at the northeast corner of said lot 3; thence westerly along the northerly line of said lot 3, a distance of 35 feet; thence southeasterly in a straight line to the easterly line of said lot 3 at a point 30 feet southerly of said northeast corner; thence northerly along said easterly line, 30 feet to the place of beginning.

Also a parcel of land lying in lot 8, block 23, Caruthers addition to Caruthers addition to the city of Portland, in the city of Portland, county of Multnomah and state of Oregon, the said parcel being described as follows: beginning at the northeast corner of said lot 8; thence westerly along the northerly line of said lot 8, a distance of 40 feet; thence southeasterly in a straight line to the easterly line of said lot 8 at a point 35 feet southerly of said northeast corner; thence northerly along said easterly line 35 feet to the point of beginning.

Easements - Encumbrances

Please refer to the amended preliminary title report for all items concerning agreements, liens, waivers, assessments, leases, taxes and other matters of record which do not reflect any survey matters and are not listed below. the following items were listed in the commitment noted in my note no.1 and are listed below with my comments.

11 Limited access provisions contained in deed to the state of Oregon, by and through its state highway commission, which provides that no right or easement of right of access to, from or across the state highway other than expressly therein provided for shall attach to the abutting property. recorded january 16, 1964, in book 2203, page 419. restricts access along freeway frontage.

12 Limited access provisions contained in deed to the state of Oregon, by and through its state highway commission, which provides that no right or easement of right of access to, from or across the state highway other than expressly therein provided for shall attach to the abutting property. recorded february 20, 1964, in book 2208, page 515. restricts access along freeway frontage.

13 Covenants, conditions and restrictions imposed by instrument, including the terms and provisions thereof, recorded February 20, 1964, in book 2208, page 515. deed prohibits placement of advertising sign within view of the freeway. applies to those portions of parcel ii lying in lots 3 and 8, block 23, Caruthers addition to Caruthers addition to the city of Portland.


SW GRANT STREET
SW 4TH AVENUE
HIGHWAY 405
GUTTER
MANHOLE LID=164.53
MANHOLE LID=165.61
MANHOLE LID=156.13
MANHOLE LID=155.72
MANHOLE LID=155.71
SCALED FROM CITY ASBUILTS
SEWER LINE AS PAINTED
ELECTRIC LINE AS PAINTED
CONCRETE VAULT
CONCRETE SIDEWALK
CURB
DRIVEWAY
INGRESS
EGRESS
CB
PS
WM
WV
SS
CV
MLP
ER
EV
WLP
12" TREE
16" TREE
13" TREE
6" TREE
14" TREE
9" TREE
10" TREE
PARKING METER ON CONCRETE ISLAND
EDGE OF ASPHALT
EXTRUDED CURB
PGE ELECTRIC MANHOLE
CHAIN LINK FENCE
ASPHALT
CHUNKS OF EXTRUDED CURB NOT SHOW
SIGN ON CONCRETE BASE
S 88°33'00" E
N 01°27'00" E 20.00'
N 47°31'51" W 53.15'
N 31°51'36" W 41.88'
N 64°06'22" W 24.17'
N 88°33'00" W 26.02'
N 47°56'55" W 46.10'
S 01°27'00" W 130.00'

SITE/PROJECT INFORMATION

Site Description:
The proposed 2211 4th project is located on a triangular site at the corner of SW 4th Street and SW Grant Avenue, adjacent to I-405. Currently the site is used as a “pay to park” uncovered surface parking lot, with no existing built structures. The existing parking area covers the majority of the site and consists of 40 parking spaces with 2 curb cut access drive isles, one from Grant street and the other from 4th. The site is located within the downtown Portland neighborhood and borders the Portland State University campus and is at the gateway to the South Portland neighborhood area.

Tax Account Number: **R128694**

State ID: **1S1E04DD 01100**

Total Site Area: 11,019sf

Zoning: Central Commercial (CXd)
Design Overlay

Plan District: Education Urban Renewal District
CC - Central City
University District Plan

Proposed Building SF:

Level 1	9,810 sf
Level 2	7,767 sf
Level 3-4	8,689 sf
Level 5-6	10,989 sf
Level 7	210 sf
Total SF	**57,143**

F.A.R. 6:1 base or 9:1 w/ Residential bonus
11,019 X 9 = 99,153SF Max Allowable SF
Proposed FAR 5.2

Height: 125' / 200' w/ bonuses Allowable per zoning code
85' Allowable by Building Code for Project Type.
+/- 87'-6" Proposed top of roof stair tower above avg. grade.
+/- 81’ Proposed top of parapet wall above avg. grade.

Grade Level Glazing: Required 50% of facade length 25% of area
Refer to Calculated Area Pg A6

Bicycle: Required Short term: (5.4) 5 spaces req. @ 1/20 per unit
See site plan for short term parking, 5 spaces provided)
Required Long term: 162 spaces req. @ 1.5 per unit
162 spaces provided (144 interior, 18 exterior)

Parking: 23 Commercial pay per use, 2 loading spaces

Construction Type: Proposed 5 levels of type III-A over 1 level of type I-A

# of Units: **108** Residential Units (Average unit size 250sf (preliminary))
(1) 1,105 sf Commercial Unit

Level 2	16 Units
Level 3	23 Units
Level 4	23 Units
Level 5	23 Units
Level 6	23 Units

Project Information

Project: 2211 SW 4th Apartments
2211 SW 4th, Portland, Oregon 97201

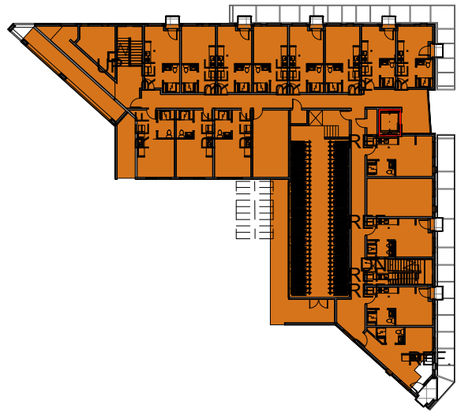
Developer/Owner: KOZ Development
1208 Tenth Street
Suite 201
Snohomish, WA 98290

Previous Reviews: Preapplication Conf. #EA 15--114048 March 12, 2015
Land Use DAR #15-153663DA June 18, 2015

Project Description: 108 Unit "micro unit" residential apartment building over surface level parking and (2) commercial 855sf units.

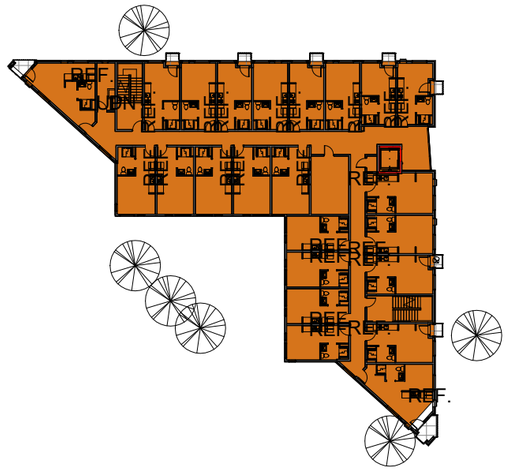
1 Level 1
1" = 50'-0"

LEVEL 1 AREA = 10,050



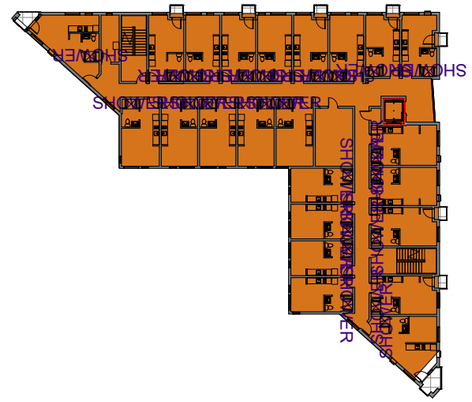
2 Level 2
1" = 50'-0"

LEVEL 2 AREA = 8,906



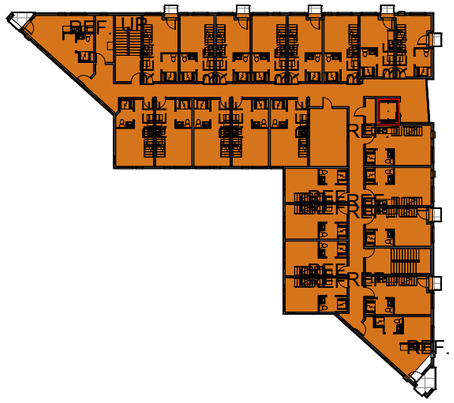
3 Level 3
1" = 50'-0"

LEVEL 3 AREA = 8,691



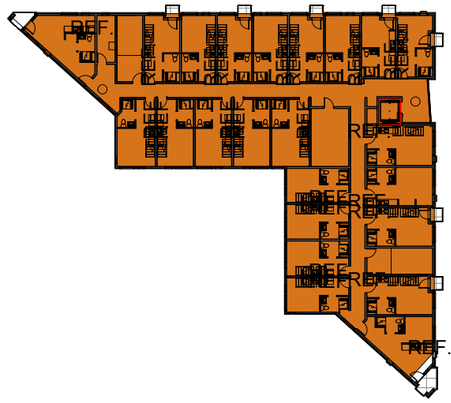
4 Level 4
1" = 50'-0"

LEVEL 4 AREA = 8,691



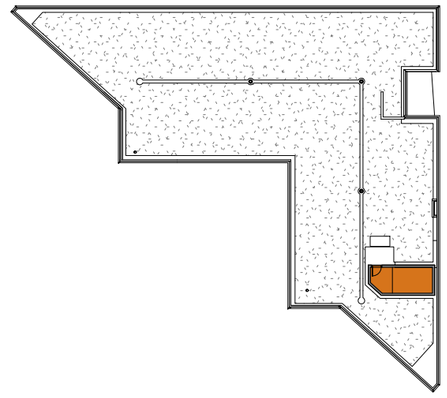
5 Level 5
1" = 50'-0"

LEVEL 5 AREA = 8,691



6 Level 6
1" = 50'-0"

LEVEL 6 AREA = 8,691



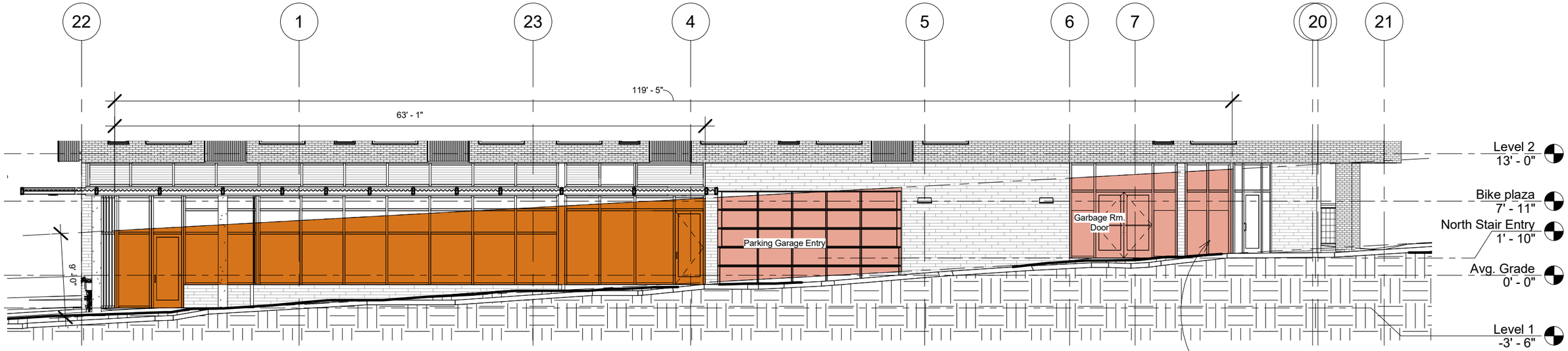
8 Level 7
1" = 50'-0"

LEVEL 6 AREA = 210

LEVEL 6 AREA = 2,856

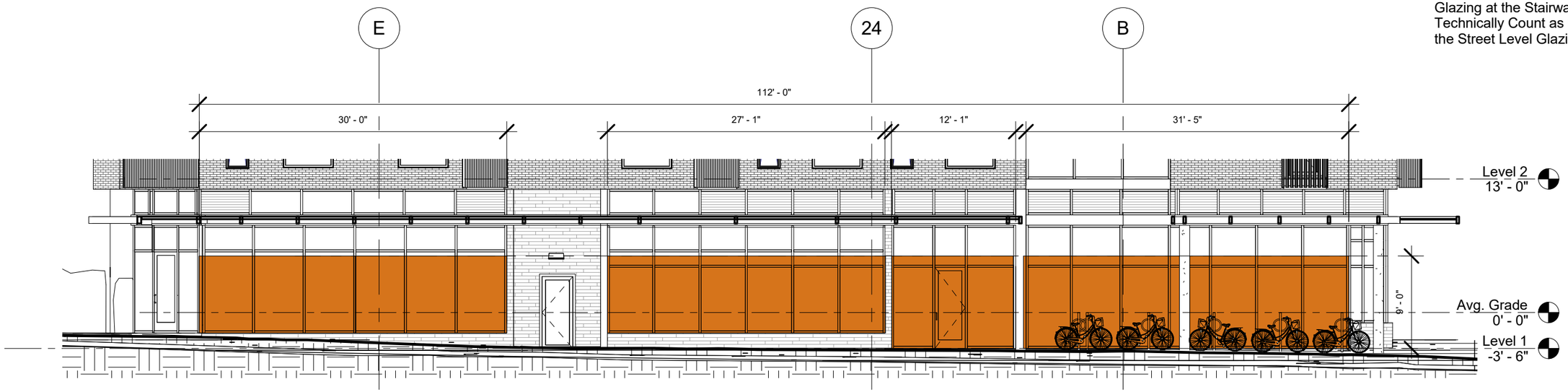
Proposed Building GSF:	Level 1	10,050
	Level 2	8,906
	Level 3-6	8,691
	Level 6B	2,856
	Level 7	210
	Total SF	**56,786**

F.A.R. 6:1 or 9:1 w/ Residential bonus
11,019 X 9 = 99,153SF Max Allowable SF
Proposed FAR 5.1



1 SW Grant Street Elevation
3/32" = 1'-0"

Note: Although Glazing is provided to Avoid a "Blank Facade", Window Glazing at the Stairway does not Technically Count as Contributing to the Street Level Glazing Requirement.



2 SW 4th Street Elevation
3/32" = 1'-0"

4th STREET LEVEL

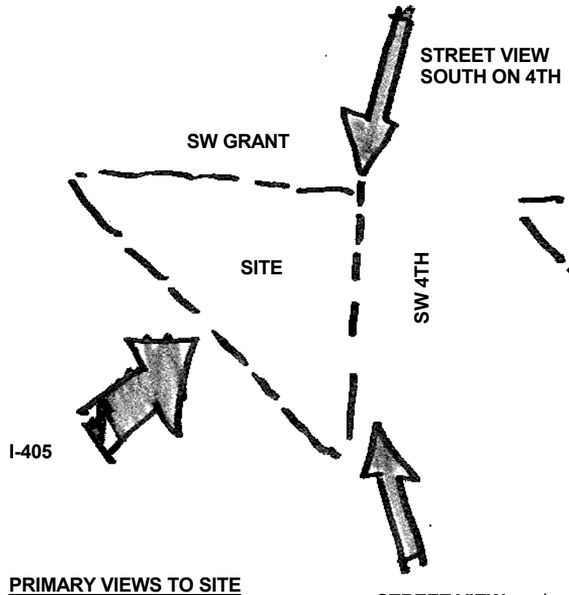
1.) TOTAL AREA 9'x112' = 1,080SF(.25)	= **252 SF REQ.** (25%)
2.) TOTAL LINEAR FOOT = 112'/2	= **56'-0" LF REQ.** (50% OF WALL)
1.) TOTAL **AREA** OF GLAZING PROVIDED	= **810 SF**
2.) TOTAL **LENGTH** OF GLAZING PROVIDED	= **100'-7" LF**

GRANT STREET LEVEL

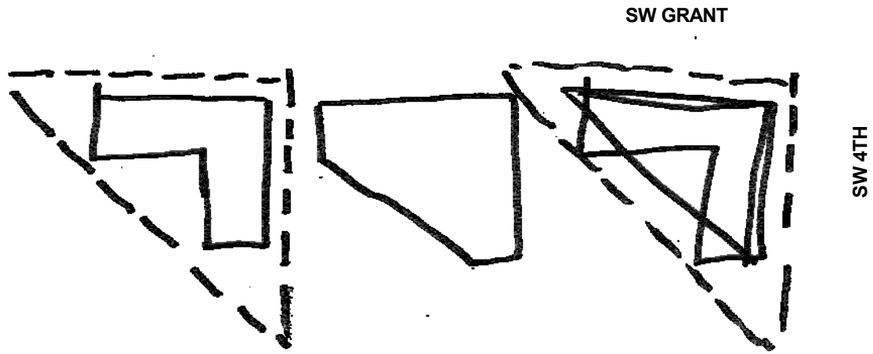
1.) TOTAL AREA 9' x 119'-5" = 1,075 SF(.25)	= **269 SF REQ.** (25%)
2.) TOTAL LINEAR FOOT = 119'-5" / 2	= **59' 8 1/2" LF REQ.** (50% OF WALL)
1.) TOTAL **AREA** OF GLAZING PROVIDED	= **492 SF**
2.) TOTAL **LENGTH** OF GLAZING PROVIDED	= **63'-1" LF**

SITE PARTI STUDY

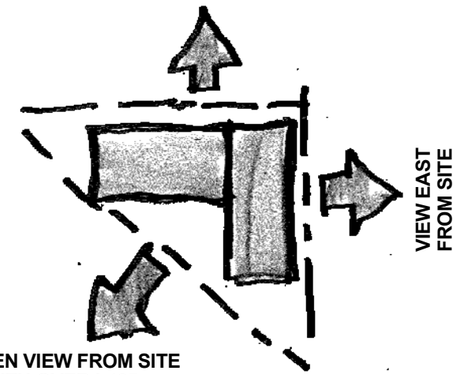
2211 SW 4TH

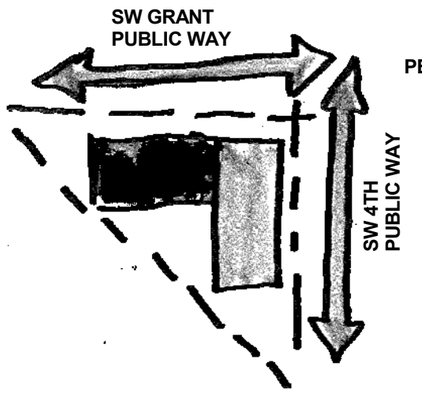


PRIMARY VIEWS TO SITE



SITE BUILDING ORIENTATION





DESIGN PARTI SUMMARY

Basic site analysis and site conditions which held influence over the mass, scale, form and function of the building include the geometry of the site, views from the site, views into the site, and public ways adjacent to the site. Other nonphysical influences such as parking demands, market demand drivers, which include Portland's need for affordable housing also influenced the overall shape, size and program of the project.

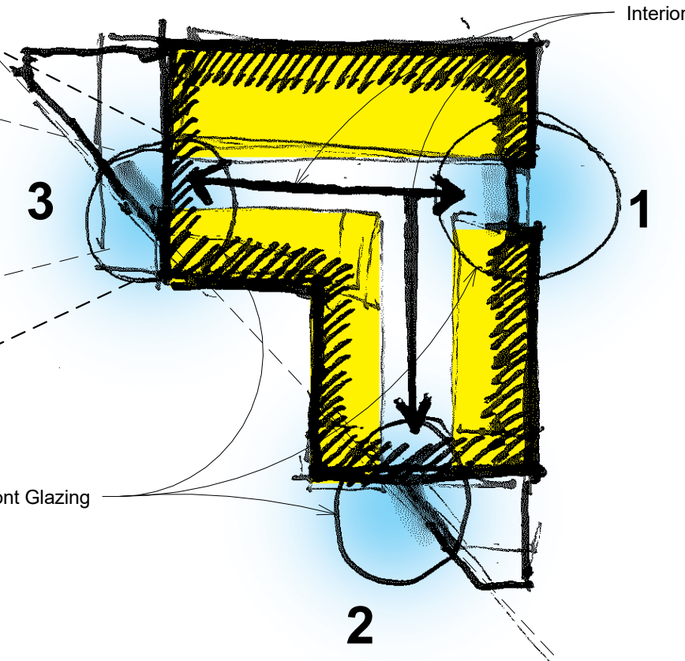
The **geometry** of the site as a triangle, strongly guided the overall shape of the structure and can be seen as a clear influence and guiding concept in the final proposal which seeks to emphasize and embrace the triangle shape of the site while maximizing the efficiency of the site. **Views from** the site helped determine where to capitalize and focus unit window locations. The angle of the eastern façade, although lacking a direct view to the river, is angled to acknowledge the river orientation and to create interest and definition on the corner of 4th and Grant. In addition, this angled glass façade adjacent the elevator orients the residents view to the Halprin Open Space Sequence and the Pedestrian Trail. **Views into** the site were considered while shaping the identity of the building and helped influence the massing concept. The southwest façade (I-405 side) uses gestalt to emphasize the relationship of the triangle through the carved out box shape which defines the ordered unit layout. The "carved out" square reduces the building mass and provides a greenspace on the second level. Changes in materials support the gestalt design concept and strengthen the form and massing. The Southeast corner of the building was eroded to engage pedestrians as they drive and walk across the 4th street overpass.

The South corner on 4th has been emphasized with a "jewel box" entry and a third floor exterior covered balcony with a built in table that encourages outdoor gatherings. In addition, resident rooms with balconies create interest and connectivity to the businesses and Under Armor campus across Interstate 405. The Northwest corner of the building is activated by a dramatic stairwell with floor to ceiling windows, bright colored lights, and an acute point of the triangle making the stair stand out and provide interest. **Public ways**, and pedestrian travel were studied for points of building arrival, access, window placement, and massing orientation. The angle in the eastern façade, while acknowledging the river, also erodes the corner of the structure allowing for a more calming and engaging pedestrian experience, and highlights the primary building function for the residential entry at the corner. The Southeast corner of the building engages with the pedestrian starting with a two-story glass façade that looks into a recreation room. Continuing along 4th, the pedestrian experience continues with tall tables along the glass façade where residents can study, socialize, work, etc. while other residents are engaging in various social activities. The Northwest corner will engage the pedestrian immediately as they are traveling along Grant Street toward 4th Avenue, with colorful street art, lit up in the stair well. As you are nearing the corner of 4th, a commercial space has been designed that allows for an interesting future retail alternative.

The site is currently an unimproved surface **parking** lot with 40 parking spots. The current 40 parking spots are in high demand with current data indicating an 80% usage rate. As proposed, those 40 spots will be reduced to 25 spaces which are creatively hidden behind the façade along 4th & Grant. Given the 108 resident units included in our proposed building, the 30,000 rentable space located in the Chase building directly to the North and the proximity to PSU's campus, the 24 parking spaces are critical to the parking demand in this area.

Given the sites **location** within the University District, its proximity to Portland State University, OHSU, and Downtown, our target residents include OHSU and PSU staff and faculty, students and medical residents, employees of nearby businesses, including Under Armor, CH2M Hill, etc. PSU alone has approximately 30,000 students as well as 6,900 employees; while OHSU has 4,500 students and 2,800 faculty. Under Armor's 70,000 square foot campus one block to the south will house over 200 employees starting in 2016 further increasing the demand. Downtown studio units to serve this strong demand pool are non-existent (1,026 in the fall of 2015) driving up rents and forcing these individuals to live out of the downtown area and commute.

Due to the high demand and the limited supply **affordability** in the Downtown core has become an issues with average Downtown studio rents at $969, excluding utilities, in the fall of 2015. Class A studio (average 545 square feet) rents were higher averaging $1,500 excluding utilities and $1,619 including utilities. Kōz is currently estimating rents in its market rate studio units at $1050 - $1,100, including utilities and all furnishings and our 1-bedroom loft units at $1,300 - $1,350. In addition, Kōz has applied for the Portland Housing Bureau's MULTE program. We have attended a pre-application meeting and it approved will provide 22 affordable units at 60% AMI in the heart of Downtown Portland ($772, including utilities and furnishings, for the studios and $827 for the 1-bedroom lofts).



Interior Circulation Pattern

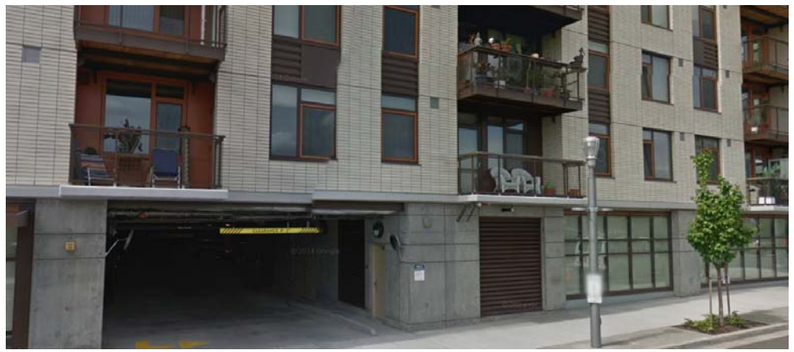
Focus on Sorefront Glazing

Exterior Brick Carried into the Interior at Storefront Window Locations

Brick is used to order the exterior façade and window of the residential units. At key points along the internal circulation path floor to ceiling storefront is used to lighten the transition from brick to metal. These architectural moments are further emphasized by pulling the exterior brick cladding into the interior.

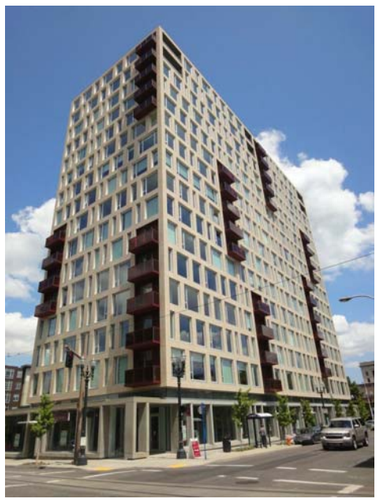
EXAMPLE OF METAL MATERIALS

MASSING CONCEPT



EXAMPLE OF BRICK WITH CONCRETE BASE

EXAMPLE OF BRICK WITH CONCRETE BASE

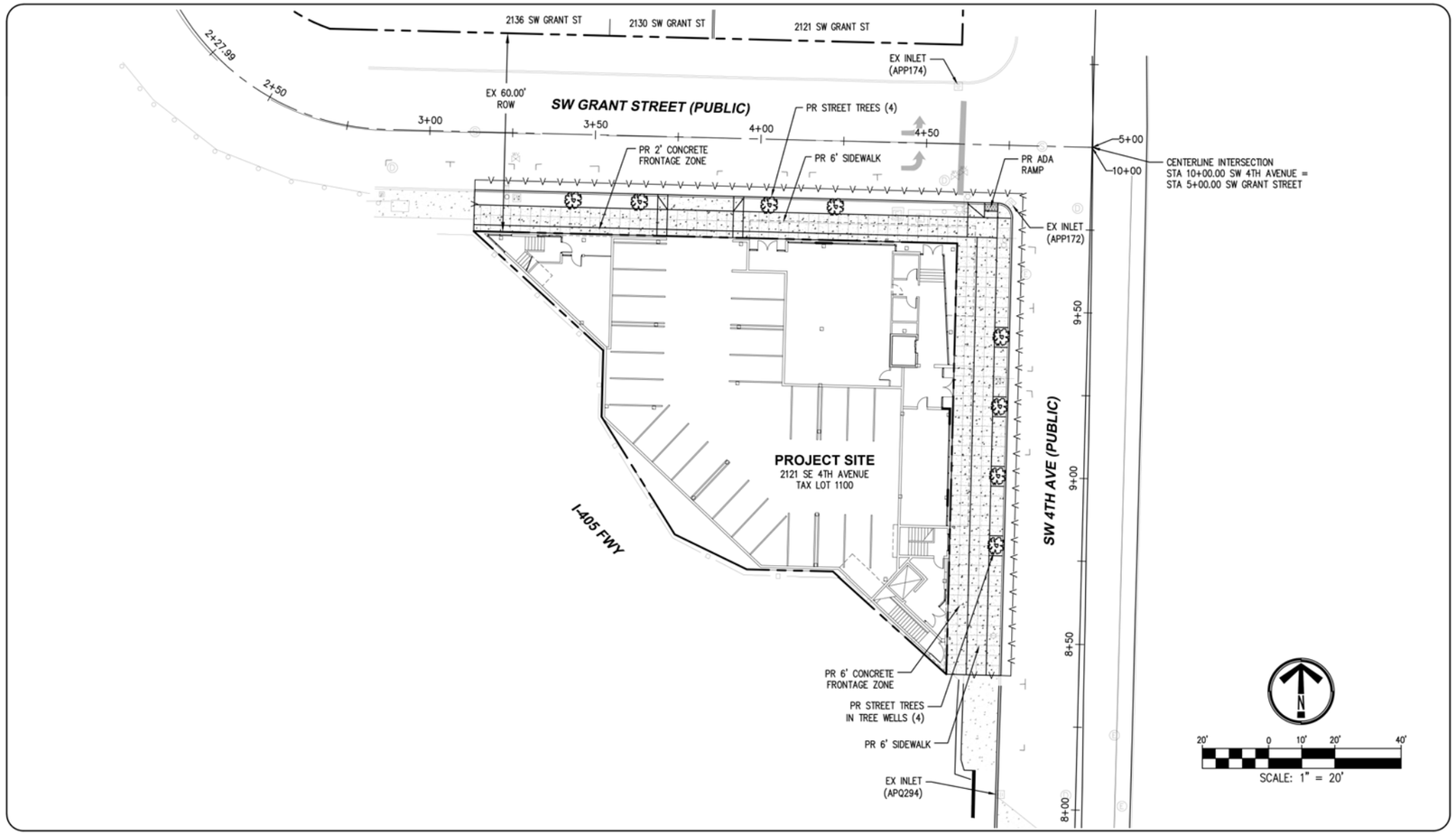


EXAMPLE OF MASSING AND CONCRETE BASE WITH METAL SIDING

EXAMPLE OF TRANSPARENT STEEL BALCONY

PUBLIC IMPROVEMENTS

SW 4TH AVENUE AND SW GRANT STREET



LEGEND

EXISTING

- RIGHT OF WAY (ROW) LINE
- CENTERLINE
- LOT LINE
- SANITARY SEWER
- STORM LINE
- WATER LINE
- GAS LINE
- BURIED ELECTRIC LINE
- FENCE LINE
- CURB
- ASPHALTIC CONCRETE (AC)
- CONCRETE
- ELECTRICAL MANHOLE
- SIGN
- UTILITY/LIGHT POLE
- UTILITY POLE/GUY WIRE
- GAS VALVE
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- SANTIARY SEWER MANHOLE
- STORM INLET
- STORM SEWER MANHOLE
- COMMUNICATION MANHOLE
- PARKING METER
- TREE

PROPOSED

- SAWCUT LINE
- SANITARY SEWER LATERAL
- WATER LINE
- STORM LATERAL
- STANDARD CURB
- SIDEWALK
- STREET TREE

NOTICE TO EXCAVATORS:

ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER.
(NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS 503-232-1987).

POTENTIAL UNDERGROUND FACILITY OWNERS

Dig Safely.

Call the Oregon One-Call Center
DIAL 811 or 1-800-332-2344

EMERGENCY TELEPHONE NUMBERS

NW NATURAL GAS	
M-F 7am-6pm	503-226-4211 Ext.4313
AFTER HOURS	503-226-4211
PGE	503-464-7777
CENTURYLINK	1-800-573-1311
CITY BUREAU OF MAINTENANCE	503-823-1700
CITY WATER	503-823-4874
VERIZON	1-800-483-1000

STORMWATER NARRATIVE

PUBLIC

STORMWATER WILL BE BE ROUTED THROUGH AN EXISTING INLET (APP172) ON THE SW CORNER OF SW GRANT STREET AND SW 4TH AVENUE. THE TOTAL DEVELOPED AREA IN THE RIGHT-OF-WAY (SIDEWALK, CURB, DRIVEWAY, AC) IS 4,503 SF.

PRIVATE

DUE TO LOW INFILTRATION RATES, THE ONSITE RUNOFF WILL BE TREATED AND DISCHARGE INTO THE EXISTING 12" PUBLIC STORM IN SW GRANT ST.

ENGINEER'S NOTE TO CONTRACTOR

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITIES EXCEPT THOSE SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN ON THESE DRAWINGS. THE CONTRACTOR FURTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN OR NOT SHOWN ON THESE DRAWINGS.

THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.

PROJECT CONTACTS

APPLICANT:
KOZ DEVELOPMENT
1208 TENTH STREET
SUITE 201
SNOHOMISH, WA 98290

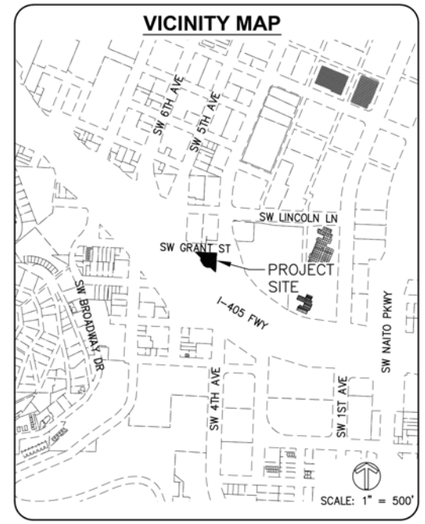
CIVIL ENGINEER:
EMERIO DESIGN, LLC
8285 SW NIMBUS AVE, STE 180
BEAVERTON, OR 97008
(503) 639-9592 (F)
CONTACT: BUCK SMITH, P.E.
(503) 310-4661 (P)

SURVEYOR:
CHASE JONES & ASSOCIATES INC.
716 S.E. 11TH AVENUE
PORTLAND, OREGON 97214
CONTACT: ERRIC D. JONES
(503) 228-9844

ABBREVIATIONS

EX	- EXISTING	RT	- RIGHT	ELEV	- ELEVATION
PR	- PROPOSED	LT	- LEFT	BOW	- BACK OF WALK ELEVATION
SF	- SQUARE FEET	COP	- CITY OF PORTLAND	DG	- DEPRESSED GUTTER ELEVATION
ROW	- RIGHT OF WAY	STD	- STANDARD	DN	- DRAINAGE NOTCH ELEVATION
STA	- STATION	DWG	- DRAWING	FG	- TOPSOIL FINISHED GRADE ELEVATION
CL	- CENTERLINE	SS	- SANITARY SEWER	G	- GUTTER ELEVATION
PC	- POINT OF CURVATURE	MH	- MANHOLE	SW	- SIDEWALK ELEVATION
PT	- POINT OF TANGENCY	CO	- CLEANOUT	TC	- TOP OF CURB ELEVATION
PVC	- POINT OF VERTICAL CURVATURE	CSP	- CORROGATED STEEL PIPE	TP	- TOP OF PAVEMENT ELEVATION
PVT	- POINT OF VERTICAL TANGENCY	CI	- CAST IRON	TW	- TOP OF WALL ELEVATION
				TD	- TOP OF CHECKDAM ELEVATION

VICINITY MAP



DRAWING INDEX

SITE INFORMATION

SITE ADDRESS:
2211 4TH AVENUE
PORTLAND, OREGON 97201

TAX LOT 1100, MAP 1S 1E 04DD 01100
S.E. 1/4 SECTION 4, T.1S., R.1E., W.M.,
CITY OF PORTLAND, MULTNOMAH COUNTY, OREGON

BENCH MARK INFORMATION

THE DATUM FOR THIS SURVEY IS BASED UPON CITY OF PORTLAND BENCHMARK NO. 4106, LOCATED AT THE NE CORNER OF THE SOUTH END OF VIA DUCT OVER I-405 (S 598).

ELEVATION= 182.165, COP DATUM.

FILE: 426-002_01_COVR.DWG 1 COVER SHEET 3/30/2016 8:41:48 AM - BSMITH

NO.	DATE	DESCRIPTION	APPD.

REVISIONS

CONSTRUCTED BY
PROJECT COMPLETED
MAP CORRECTED BY
CHECKED BY

FINAL MAP DATA

DESIGNED BY	RBS	DATE APPROVED	
CAD BY	RBS	DIV. ENGINEER	
CHECKED BY	RBS	BES REVIEWER	
		PBOT REVIEWER	

APPROVAL:

PBOT PRINCIPAL ENGINEER REG. PROF. ENGR. 51704PE

PBOT CITY ENGINEER REG. PROF. ENGR. 51538PE

PORTLAND
BUREAU OF TRANSPORTATION

STEVE NOVICK COMMISSIONER

STEVE TOWNSEN, P.E. CITY ENGINEER

EMERIO Design
6107 SW MURRAY BLVD. SUITE 147
BEAVERTON, OREGON 97008
TEL: (503) 515-5528
FAX: (503) 639-9592
www.emeriodesign.com

REGISTERED PROFESSIONAL ENGINEER 73617 OREGON JAN. 8, 2009 ROBERT BUCHANAN SMITH EXPIRES: 06/30/2016

PUBLIC IMPROVEMENTS
SW 4TH AVENUE AND
SW GRANT STREET
COVER SHEET

PBOT JOB NO.

SHEET NO. 1 OF 5

GENERAL NOTES

1. ERRORS AND OMISSIONS ARE THE RESPONSIBILITY OF THE 'ENGINEER OF RECORD'. IF ERRORS OR OMISSIONS ARE FOUND AFTER THE PERMIT HAS BEEN ISSUED, THE PERMITTEE OR ITS CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD (BUCK SMITH OF EMERIO DESIGN, 503-310-4661) TO HAVE THE CORRECTIONS MADE. ALL CHANGES WILL REQUIRE THE APPROVAL OF THE CITY ENGINEER PRIOR TO THE WORK BEGINNING.
2. THE CONTRACTOR SHALL HAVE AT ALL TIMES ON-SITE, THE APPROVED CONSTRUCTION DRAWINGS & SPECIAL SPECIFICATIONS, CITY OF PORTLAND STANDARD SPECIFICATIONS & STANDARD DRAWINGS, AND ALL OTHER APPLICABLE SPECIFICATIONS BOOKS AND MANUALS. ELECTRONIC EQUIVALENT ARE ACCEPTABLE.
3. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THESE DRAWINGS AND THE APPLICABLE REQUIREMENTS OF THE 2010 EDITION OF THE CITY OF PORTLAND STANDARD CONSTRUCTION SPECIFICATIONS AND ALL REVISIONS AND SPECIAL SPECIFICATIONS.
4. A PRECONSTRUCTION CONFERENCE WITH CITY STAFF AND AN APPROVED TEMPORARY TRAFFIC CONTROL PLAN (ISSUED IN CONJUNCTION WITH A STREET/SIDEWALK CLOSURE PERMIT) ARE REQUIRED BEFORE COMMENCING WORK. SEE PERMIT FOR SCHEDLING A PRECONSTTION CONFERENCE AND ACQUISITION OF THE TTCP.
5. ELEVATIONS ARE BASED ON CITY OF PORTLAND DATUM FROM BENCH MARK NO. 4106, ELEVATION = 182.165, LOCATED AT THE NE CORNER OF THE SOUTH END OF VIA DUCT OVER I-405 (S 598).
6. ATTENTION EXCAVATORS: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THESE RULES FROM THE CENTER BY CALLING [503.232.1987]. IF YOU HAVE ANY QUESTIONS ABOUT THE RULES, YOU MAY CONTACT THE CALL CENTER. YOU MUST NOTIFY THE CENTER AT LEAST 2 BUSINESS DAYS, BUT NOT MORE THAN 10 BUSINESS DAYS, BEFORE COMMENCING AN EXCAVATION. CALL [811 OR 1-800-332-2344].

ENCROACHMENTS

7. STREET FURNISHINGS ARE SHOWN FOR REFERENCE ONLY. THE INSTALLATION OF ALL STREET FURNITURE INCLUDING BUT NOT LIMITED TO BENCHES, NON CITY INSTALLED BIKE RACKS, GARBAGE CANS, ELECTRICAL SYSTEMS (CONDUIT, CONDUCTORS, OUTLETS), AND PUBLIC ART, ARE NOT AUTHORIZED UNDER THIS PERMIT. A SEPARATE REVOCABLE PERMIT IS REQUIRED.

UNANTICIPATED CONTAMINATED MATERIAL

8. REMOVE AND DISPOSE (AT A PROPER LOCATION OR LANDFILL) ALL MATERIALS EXCAVATED FROM WORK IN THE RIGHT-OF-WAY. FOR DISPOSAL ON PRIVATE PROPERTY, SECURE A FILL PERMIT, PRIOR TO BEGINNING WORK FROM THE BUREAU OF DEVELOPMENT SERVICES (BDS). PROVIDE A COPY OF THE APPROVED FILL PERMIT TO THE STREET CONSTRUCTION INSPECTOR.

   FOR UNANTICIPATED CONTAMINATED MEDIA ENCOUNTERED, THE PERMITTEE/APPLICANT OR ITS AGENT SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE MANAGEMENT, AND DISPOSAL OF CONTAMINATED MEDIA ENCOUNTERED. THE PERMITTEE IS ALSO RESPONSIBLE FOR ALL RESULTANT DELAYS.

   THE PERMITTEE OR ITS AGENT SHALL PROVIDE THE CITY (ENGINEERING AND INSPECTION) WITH COPIES OF ALL DISPOSAL PERMITS FROM THE PERMITTED DISPOSAL FACILITY, ANALYTICAL RESULTS USED TO GAIN ACCEPTANCE OF THE CONTAMINATED MEDIA, AND DISPOSAL RECEIPTS/DAILY WEIGH SLIPS. DAILY WEIGH SLIP AMOUNTS SHALL BE CHECKED AGAINST INSPECTOR'S DAILY REPORTS. THE PERMITTEE MUST USE AN OREGON FACILITY FOR DISPOSAL OF THE CONTAMINATED MEDIA.

UTILITES

9. UTILITIES SHOWN ON THESE PLANS ARE FOR INFORMATION AND COORDINATION PURPOSES ONLY AND ARE NOT AUTHORIZED FOR INSTALLATION UNDER THE PUBLIC STREET IMPROVEMENT PERMIT. PRIVATE AND PUBLIC UTILITY COMPANIES ARE REQUIRED TO SECURE SEPARATE UTILITY PERMITS FROM THE PBOT FOR ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
10. COORDINATION OF ALL UTILITY RELOCATES, REMOVALS, OR INSTALLATION WITHIN THE LIMITS OF WORK IS THE RESPONSIBILITY OF THE PERMITTEE/CONTRACTOR.
11. STORM AND SANITARY SEWERS ARE BEING CONSTRUCTED UNDER JOB #_____, AS APPROVED BY THE BUREAU OF ENVIRONMENTAL SERVICES.
12. WATER MAINS AND SERVICES ARE BEING CONSTRUCTED UNDER JOB # _____, AS APPROVED BY THE WATER BUREAU.

STREET PAVEMENT

12. ALL MANHOLE LIDS AND VALVE BOXES SHALL BE ADJUSTED TO FINISHED STREET GRADE.
13. THE PBOT INSPECTOR WILL DETERMINE THE EXACT LIMITS OF SKINPATCHING - LEVEL 2 ASPHALT CONCRETE.
14. THE STREET INSPECTOR WILL MAKE THE FINAL DETERMINATION OF THE LIMITS OF PAVEMENT RESTORATION, INCLUDING SAWCUT LINES AND SKIN PATCHING, THE PERMITTEE/CONTRACTOR SHALL CONSULT WITH THE STREET INSPECTOR PRIOR TO SAWCUTTING OR DEMOLISHING OF PAVEMENT.
15. SAWCUTS SHALL BE STRAIGHT MATCHLINES TO CREATE A BUTT JOINT BETWEEN THE EXISTING PAVEMENT AND NEW PAVEMENT AND ALL NEW PAVEMENT JOINTS SHALL BE SAND SEALED.
16. EXISTING PAVEMENT SECTION WIDTHS OF 2 FEET OR LESS BETWEEN PROPOSED SAWCUT AND EXISTING PAVEMENT EDGE (I.E. UTILITY TRENCH REPAIR), SHALL BE RESTORED PER STD. DWG. P-505.
17. PAVEMENT SECTION SHALL BE AS SHOWN ON THE STREET TYPICAL SECTION(S) OR MATCH EXISTING PAVEMENT IF EXISTING IS A THICKER SECTION.

CURBS, SIDEWALKS, AND DRIVEWAYS

18. UTILITY LIDS, MANHOLE COVERS, VALVE COVERS (THAT ARE NOT SHOWN ON THESE CONSTRUCTION DRAWINGS) ARE NOT ALLOWED IN THE THROUGH PEDESTRIAN ZONE. THEY MUST BE PLACED IN THE SIDEWALK FURNISHING OR BUILDING ZONE IF THE PROPER PBOT UTILITY PERMIT HAS BEEN SECURED.
19. FULL HEIGHT CURBS SHALL BE CONSTRUCTED AT ALL LOCATIONS UNLESS A NEW DRIVEWAY IS CONSTRUCTED AT THE SAME TIME AS THE CURB.
20. ALL SIDEWALK CONTRACTION JOINTS SHALL BE PER SECTION 00759.49 - 'CONTRACTION JOINTS' OF THE STANDARD CONSTRUCTION SPECIFICATION AND CITY STANDARD DWG P-551.
21. NO FUTURE DRIVEWAYS SHALL BE CONSTRUCTED UNLESS THERE IS A BUILDING PERMIT ISSUED FOR AN ON-SITE PARKING SPACE, OR OTHER APPROVAL FROM BDS.
22. CONTRACTOR MAY USE CEMENT OR ASPHALT CONCRETE FROM THE PRE-APPROVED MIX DESIGNS LIST IF AVAILABLE. IF NOT, THE CONTRACTOR WILL NEED TO SUBMIT A MIX DESIGN FOR APPROVAL.
23. USE ONLY APPROVED DETECTABLE WARNING DEVICES FROM THE CITY'S CONSTRUCTION PRODUCTS LIST (CPL).
24. ALL DRIVEWAYS ARE REQURIED TO HAVE A MINIMUM OF 3 FEET OF HARD SURFACING BEHIND SSIDEWALK (SEE STD DWG P-536)

TRAFFIC AND PARKING CONTROL

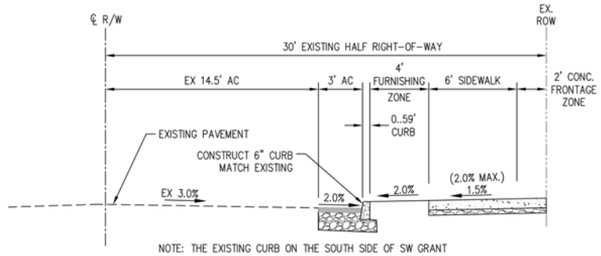
28. THE CONTRACTOR SHALL HAVE ACQUIRED AN APPROVED TEMPORARY TRAFFIC CONTROL PLAN (TTCP) PRIOR TO CLOSURE OF ANY STREET OR SIDEWALK. THE TTCP IS PART OF THE STREET/SIDEWALK CLOSURE PERMIT AND IS ACQUIRED FROM THE PERMIT CENTER LOCATED AT 1900 SW 4TH AVENUE. PROVIDE THE STREET INSPECTOR A COPY (PAPER OR ELECTRONIC) OF THE TTCP. CHANGES TO THE TTCP WILL REQUIRE A REVISION TO THE STREET/SIDEWALK CLOSURE PERMIT.
29. THE CONTRACTOR SHALL NOT REMOVE OR COVER ANY TRAFFIC CONTROL SIGNS, PAVEMENT MARKINGS, OR BARRICADES THAT ARE NOT IDENTIFIED ON THE APPROVED TEMPORARY TRAFFIC CONTROL PLAN.
30. THE CONTRACTOR SHALL MAINTAIN ALL NECESSARY TEMPORARY TRAFFIC CONTROL DEVICES (INCLUDING BUT NOT LIMITED TO THE FOLLOWING - SIGNS, PAVEMENT MARKINGS, AND BARRICADES) UNTIL THE PERMANENT TRAFFIC CONTROL DEVICES ARE INSTALLED.
31. WHEN WORK INTERFERES WITH THE OPERATION OF A TRIMET BUS OR BUS STOP, CONTACT TRIMET (RUSS BONAHAM OR KELLEY BURNES, TRI-MET OPERATIONS AT 503-962-4949) A MINIMUM OF 10 CALENDAR DAYS PRIOR TO CLOSING OR DISRUPTING TRIMET'S OPERATION.
32. THE CONTRACTOR SHALL INSTALL OR REINSTALL ALL PERMANENT TRAFFIC CONTROL SIGNING, CURB AND PAVEMENT MARKINGS, AND BARRICADES.
33. THE CONTRACTOR SHALL SUBMIT MATERIALS LIST FOR APPROVAL BY CONSTRUCTION MANAGER AND NOTIFY THE TRAFFIC ENGINEER, JENNIE TOWER AT 503-823-7738 10 CALENDAR DAYS PRIOR TO INSTALLING PERMANENT TRAFFIC CONTROL SIGNING, CURB AND PAVEMENT MARKINGS, AND BARRICADES.
34. ALL NEW SIGN MATERIALS SHALL COMPLY WITH SECTION 2910 OF THE CITY OF PORTLAND STANDARD CONSTRUCTION SPECIFICATIONS. ALL SIGNS SHALL BE TYPE III OR IV BACKGROUND SHEETING ON ALUMINUM SIGN BLANKS. SIGN TYPES FOR EACH SIGN, AS SPECIFIED IN SECTION 2910.02, ARE NOTED IN THE PLANS.
35. SIGNS AND SIGN POSTS REMOVED BY THE PERMITTEE OR ITS AGENT SHALL BE DELIVERED TO THE BUREAU OF MAINTENANCE, ALBINA YARD. CONTACT JIM BUHLER AT 503-823-4056 TO ARRANGE A DELIVERY TIME. REMOVE ALL SIGNS, CONCRETE AND DEBRIS FROM THE POST PRIOR TO DELIVERY.
36. ALL CURB AND PAVEMENT MARKING MATERIALS SHALL BE ON THE CITY'S CONSTRUCTION PRODUCTS LIST (CPL) OR THE STATE'S QUALIFIED PRODUCTS LIST (QPL). ALL MATERIALS SHALL BE INSTALLED IN CONFORMANCE WITH THE MANUFACTURERS APPROVED APPLICATION PROCEDURE.
37. ALL LONGITUDINAL LINE WORK TO BE METHOD B (NON-PROFILE) EXTRUDED THERMOPLASTIC, 120 MILS THICK
38. ALL TRANSVERSE LINE WORK, LEGENDS, SYMBOLS, AND ARROWS SHALL BE TYPE 'B-HS' PERFORMED THERMOPLASTIC. BIKE LANE STENCILS, GREEN BICYCLE LANE MARKINGS, AND BIKE PATH RAILROAD MARKINGS SHALL BE 90 MILS THICK. ALL OTHER TRANSVERSE PAVEMENT MARKINGS SHALL BE 120-125 MILS THICK.
39. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY CURB OR PAVEMENT MARKINGS DAMAGED OR REMOVED DUE TO CONTRACTOR'S OPERATION.
40. IN METERED DISTRICTS, ALL PARKING CONTROL SIGNING, METERS, POSTS AND PAVEMENT STRIPING & MARKINGS WILL BE INSTALLED BY CITY FORCES. NOTIFY PARKING CONTROL: DONOVAN GRABOWSKI, PHONE NO. 503-823-0487. ALL COSTS ASSOCIATED WITH THIS WORK WILL BE CHARGED TO THE PERMIT. PARKING SIGNS OUTSIDE OF THE METERED DISTRICTS WILL BE INSTALLED BY THE CONTRACTOR. CONTACT PARKING CONTROL 10 WORKING DAYS PRIOR TO INSTALLATION TO LOCATE EXACT SIGN LOCATIONS.

TREES

43. ALL TREE REMOVAL SHALL COMPLY WITH THE FEDERAL MIGRATORY BIRD TREATY ACT. SEE THE SPECIAL PROVISIONS FOR REQUIREMENTS PRIOR TO CUTTING OF ANY TREE.
44. ALL GROUND DISTURBANCES NEAR TREES REQUIRES ROOT INSPECTION!! CONTACT URBAN FORESTRY (LUKE MILLER AT 503-823-4025) PRIOR TO ALL EXCAVATIONS ADJACENT TO TREES. CONSULTATION WITH THE URBAN FORESTER IS REQUIRED BEFORE CUTTING OF ROOTS.
45. FOR ALTERNATE TREE SPECIES OR ALTERNATE TREE PLANTING LOCATION APPROVAL (PRIOR TO PLANTING), CONTACT LUKE MILLER AT 503-823-4025.

EROSION CONTROL

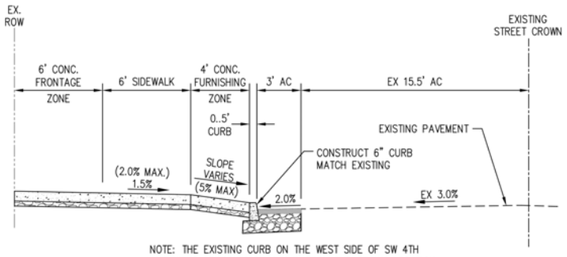
47. EROSION/SEDIMENTATION CONTROL (ESC) IS REQUIRED ON THIS PROJECT. IMPLEMENTATION OF THE ESC AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE PERMITTEE OR IT'S AGENT UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED. THE PERMITTEE OR IT'S AGENT SHALL PROVIDE INLET PROTECTION TO DOWNSTREAM INLETS FROM THE SITE PER THE EROSION CONTROL MANUAL [MARCH 2008]. CATCH BASIN AND STORM DRAIN INLET PROTECTION SHALL BE INSTALLED PER DETAIL DRAWINGS 4.3-B AND 4.3-G.



NOTE: THE EXISTING CURB ON THE SOUTH SIDE OF SW GRANT STREET IS APPROXIMATELY 17.5' FROM THE CENTERLINE.

SW GRANT ST – TYPICAL SECTION

SCALE: NTS



NOTE: THE EXISTING CURB ON THE WEST SIDE OF SW 4TH AVENUE IS APPROXIMATELY 18.5' FROM THE CROWN LOCATION.

SW 4TH AVE – TYPICAL SECTION

SCALE: NTS

FILE: 426-002_02_NOTE-TYP-SEC.DWG 2 NOTES AND TYPICAL SECTIONS 3/30/2016 8:42:14 AM - BSMITH

NO.	DATE	DESCRIPTION	APPD.

REVISIONS

CONSTRUCTED BY _____
PROJECT COMPLETED _____
MAP CORRECTED BY _____
CHECKED BY _____

FINAL MAP DATA

DESIGNED BY RBS		DATE APPROVED	
CAD BY RBS		DIV. ENGINEER	
CHECKED BY RBS		BES REVIEWER	
		PBOT REVIEWER	

APPROVAL:

PBOT PRINCIPAL ENGINEER REG. PROF. ENGR. 51704PE

PBOT CITY ENGINEER REG. PROF. ENGR. 51538PE

PORTLAND BUREAU OF TRANSPORTATION

STEVE NOVICK COMMISSIONER

STEVE TOWNSEN, P.E. CITY ENGINEER

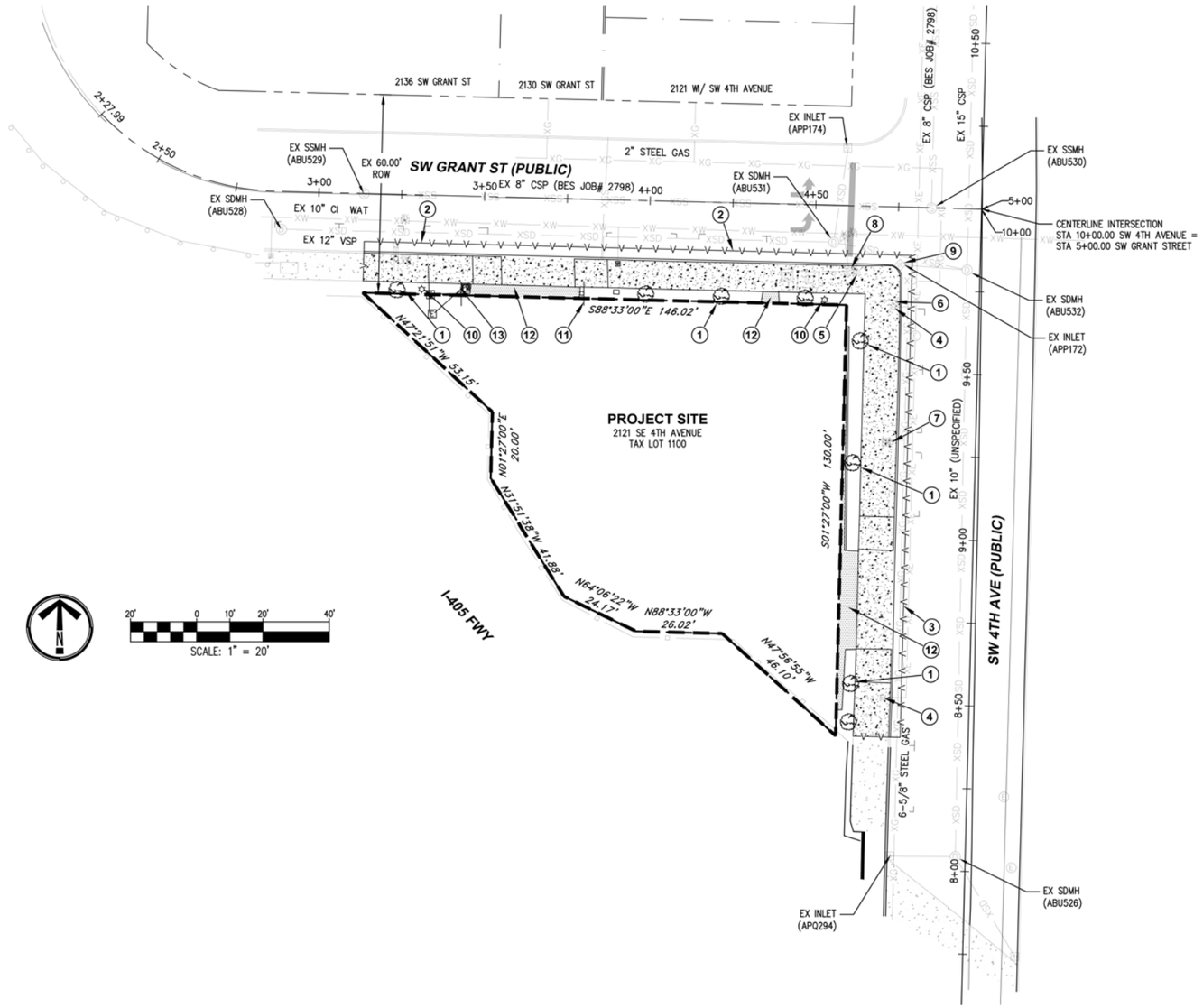
EMERIO Design
6107 SW MURRAY BLVD. SUITE 147
BEAVERTON, OREGON 97008
TEL: (503) 515-5528
FAX: (503) 639-9592
www.emeriodesign.com

REGISTERED PROFESSIONAL ENGINEER 73617 OREGON JAN. 8, 2009 ROBERT BUCHANAN SMITH EXPIRES: 06/30/2016

PUBLIC IMPROVEMENTS
SW 4TH AVENUE AND
SW GRANT STREET
NOTES AND TYPICAL SECTIONS

PBOT JOB NO. _____

SHEET NO. 2 OF 5



DEMOLITION NOTES

1. EX VEGETATION IN FURNISHING ZONE TO BE REMOVE, INCLUDING TREES, SHRUBS AND BUSHES
2. SAWCUT AND REMOVE EXISTING AC, CURB & SIDEWALK FROM STA 3+13.98, 17.5'RT GRANT STREET, TO STA 4+75.74, 17.5'RT GRANT STREET
3. SAWCUT AND REMOVE EXISTING AC, CURB & SIDEWALK FROM STA 8+40.00, 20.5'LT 4TH AVE, TO STA 9+82.45, 20.5'LT 4TH AVE
4. EX LIGHT POLE TO BE RETAINED AND PROTECTED
5. EX STOP SIGN / LIGHT POLE TO BE RETAINED AND PROTECTED
6. EX "STREET NAME" SIGN TO BE REMOVED AND REINSTALLED ON NEW POST
7. EX PARKING METER AND "NO PARKING" SIGN TO BE REMOVED AND REINSTALLED.
8. EX FIRE HYDRANT TO BE RETAINED AND PROTECTED
9. EX INLET (APP172) RIM TO BE RECONSTRUCTED
10. EX PARKING LOT LIGHT POLE TO BE REMOVED
11. EX PARKING SIGHT TO BE REMOVED
12. EX ASPHALT TO BE REMOVED
13. EX PARKING LOT PARKING METER MACHINE TO BE REMOVED

FILE: 426-002_03_EXTG.DWG 3 EXISTING CONDITIONS 3/30/2016 8:42:40 AM - BSMITH

NO.	DATE	DESCRIPTION	APPD.

REVISIONS

CONSTRUCTED BY
PROJECT COMPLETED
MAP CORRECTED BY
CHECKED BY

FINAL MAP DATA

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CAD BY RBS	DIV. ENGINEER	
CHECKED BY RBS	BES REVIEWER	
	PBOT REVIEWER	

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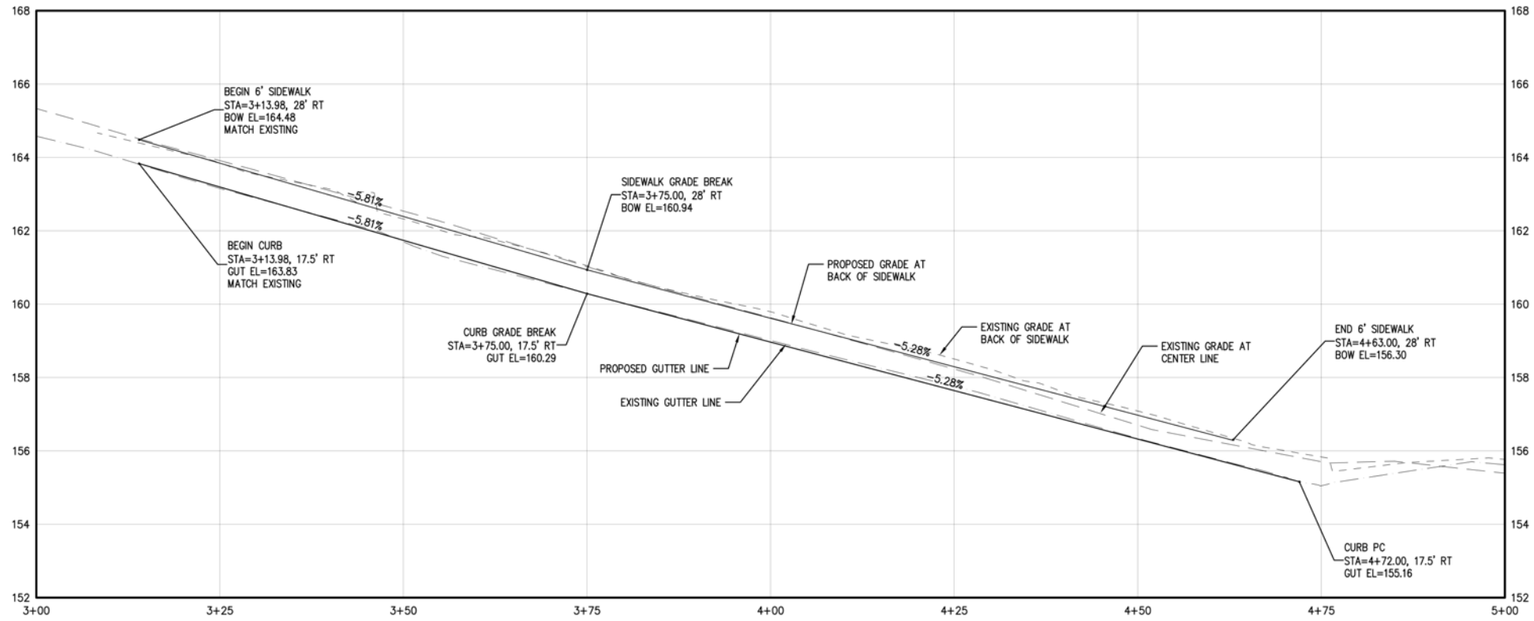
PUBLIC IMPROVEMENTS
SW 4TH AVENUE AND
SW GRANT STREET
EXISTING CONDITIONS

PBOT JOB NO.

SHEET NO. 3 OF 5

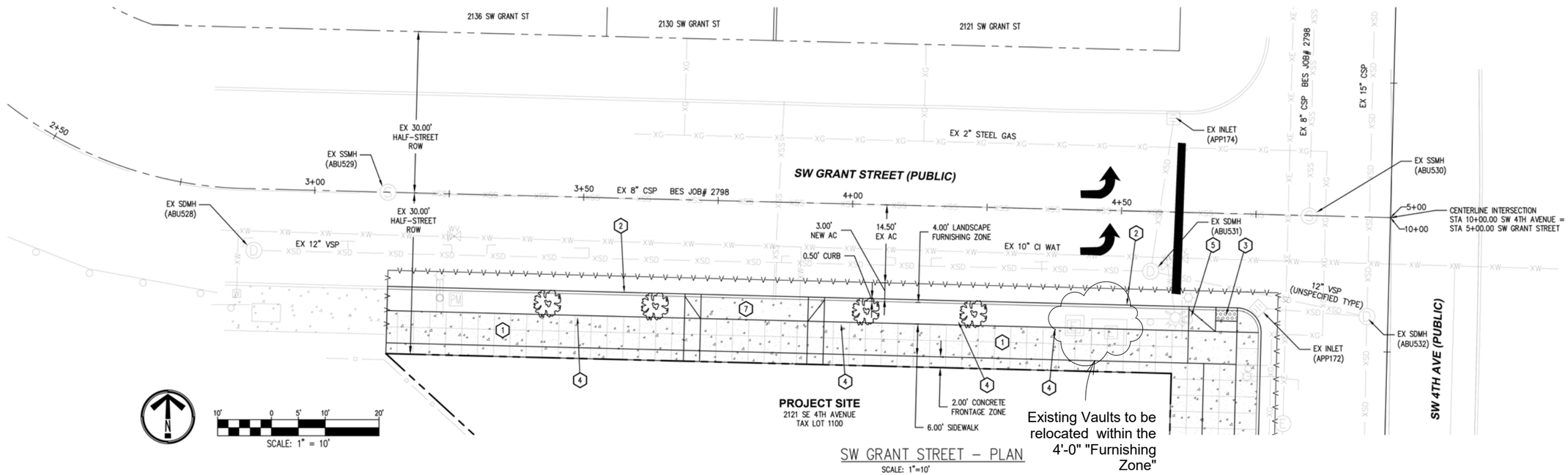


SW GRANT STREET – PROFILE

VERTICAL SCALE: 1" = 2'
HORIZONTAL SCALE: 1" = 10'

CONSTRUCTION NOTES

1. CONSTRUCT 6' SIDEWALK PER STD DWG P-551 WITH 3'X3' SCORE PATTERN.
2. CONSTRUCT STANDARD CURB & GUTTER PER STD DWG P-540. 6" CURB EXPOSURE.
3. CONSTRUCT MONOLITHIC SINGLE ADA RAMP PER COP STD DWG P-548
4. INSTALL 2½" CALIPER STREET
5. RE-INSTALL EXISTING STOP/STREET SIGN ON NEW POST
6. CONSTRUCT CONCRETE FRONTAGE ZONE BETWEEN BACK OF SIDEWALK AND PROPERTY LINE. SCORE EVERY 3'.
7. CONSTRUCT 20' CONCRETE DRIVEWAY AND DRIVEWAY CONNECTION PER STD. DWG P-528 & P-536



SW GRANT STREET – PLAN

SCALE: 1"=10'

FILE: 426-002_04_GRANT.DWG 4 SW GRANT ST PLAN AND PROFILE 3/30/2016 8:43:04 AM – BSMITH

NO.	DATE	DESCRIPTION	APPD.
		REVISIONS	

CONSTRUCTED BY
PROJECT COMPLETED
MAP CORRECTED BY
CHECKED BY
FINAL MAP DATA

DESIGNED BY RBS
CAD BY RBS
CHECKED BY RBS
DATE APPROVED
DIV. ENGINEER
BES REVIEWER
PBOT REVIEWER

APPROVAL:

PBOT PRINCIPAL ENGINEER REG. PROF. ENGR. 51704PE

PBOT CITY ENGINEER REG. PROF. ENGR. 51538PE

PORTLAND
BUREAU OF TRANSPORTATION

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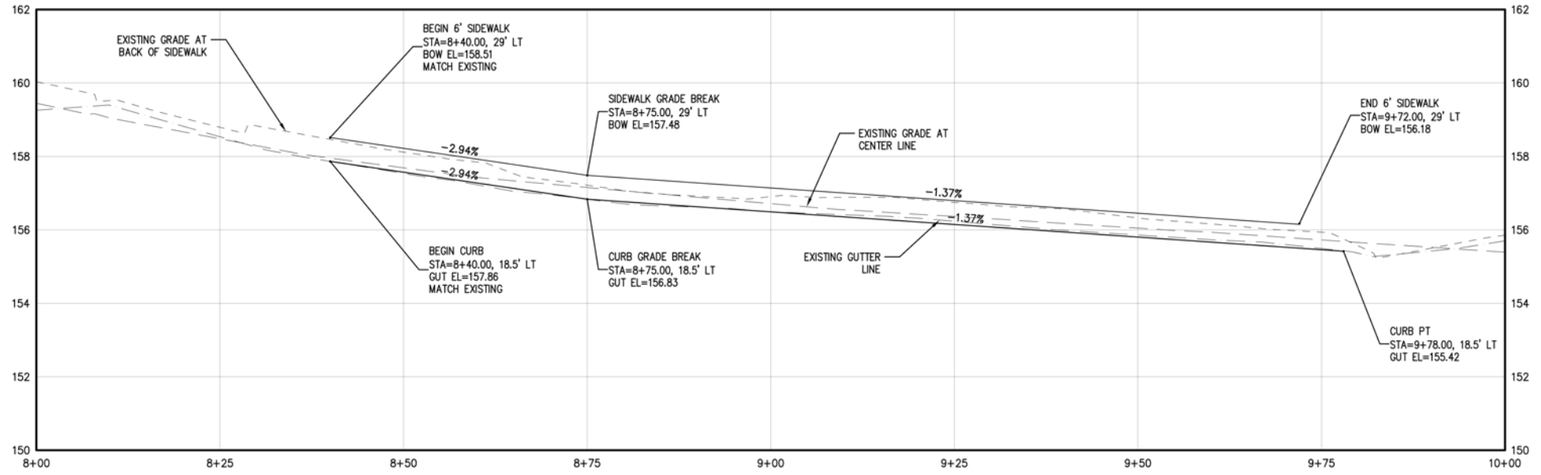
PUBLIC IMPROVEMENTS
SW 4TH AVENUE AND
SW GRANT STREET
SW GRANT ST PLAN AND PROFILE

PBOT JOB NO.

SHEET NO. 4 OF 5



SW 4TH AVENUE – PROFILE

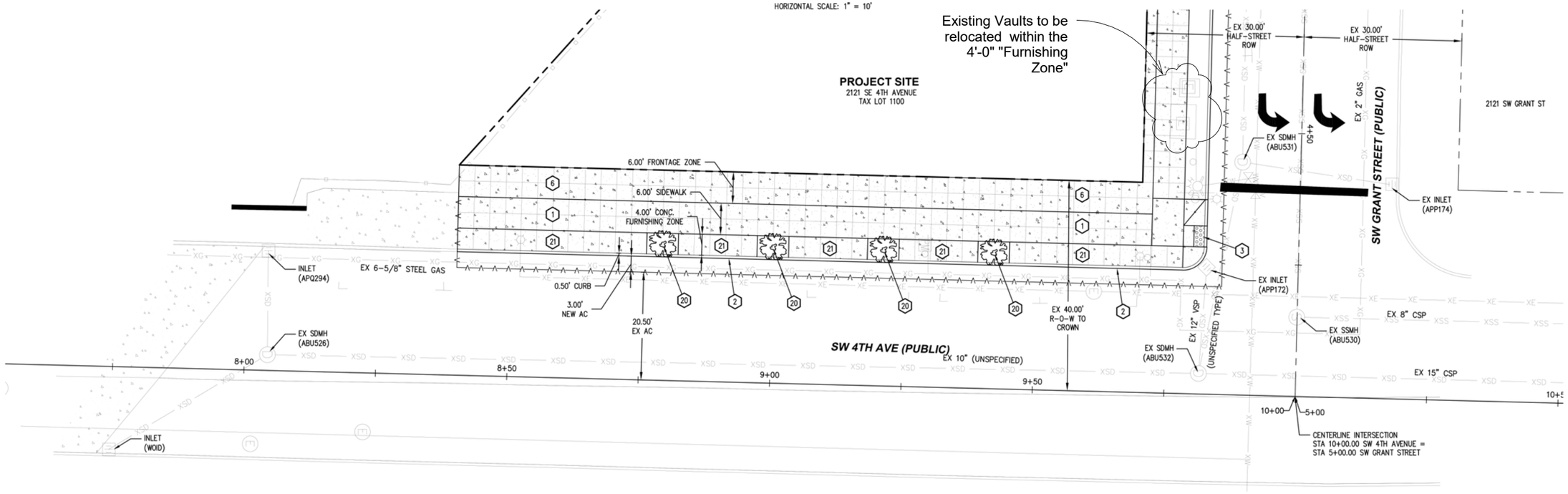
VERTICAL SCALE: 1" = 2'
HORIZONTAL SCALE: 1" = 10'

CONSTRUCTION NOTES

1. CONSTRUCT 6' SIDEWALK PER STD DWG P-551 WITH 3'X3' SCORE PATTERN.
2. CONSTRUCT STANDARD CURB & GUTTER PER STD DWG P-540. 6" CURB EXPOSURE.
3. CONSTRUCT SINGLE ADA RAMP PER COP STD DWG P-548
6. CONSTRUCT CONCRETE FRONTAGE ZONE BETWEEN BACK OF SIDEWALK AND PROPERTY LINE. SCORE EVERY 3'
20. INSTALL 2-1/2" CALIPER TREE IN 4'x6' TREE WELLS
21. CONSTRUCT CONCRETE FURNISHING ZONE BETWEEN TREE WELLS. SCORE EVERY 3'

PROJECT SITE
2121 SE 4TH AVENUE
TAX LOT 1100

Existing Vaults to be relocated within the 4'-0" "Furnishing Zone"



SW 4TH AVENUE – PLAN
SCALE: 1"=10'

N
10' 0 5' 10' 20'
SCALE: 1" = 10'

FILE: 426-002_05_4TH.DWG 5 SW 4TH AVE PLAN AND PROFILE 3/30/2016 8:43:27 AM – BSMITH

NO.	DATE	DESCRIPTION	APPD.

REVISIONS

CONSTRUCTED BY
PROJECT COMPLETED
MAP CORRECTED BY
CHECKED BY

FINAL MAP DATA

DESIGNED BY	DATE APPROVED
RBS	
CAD BY	DIV. ENGINEER
RBS	
CHECKED BY	BES REVIEWER
RBS	
	PBOT REVIEWER

APPROVAL:

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PUBLIC IMPROVEMENTS
SW 4TH AVENUE AND
SW GRANT STREET
SW 4TH AVE PLAN AND PROFILE

PBOT JOB NO.

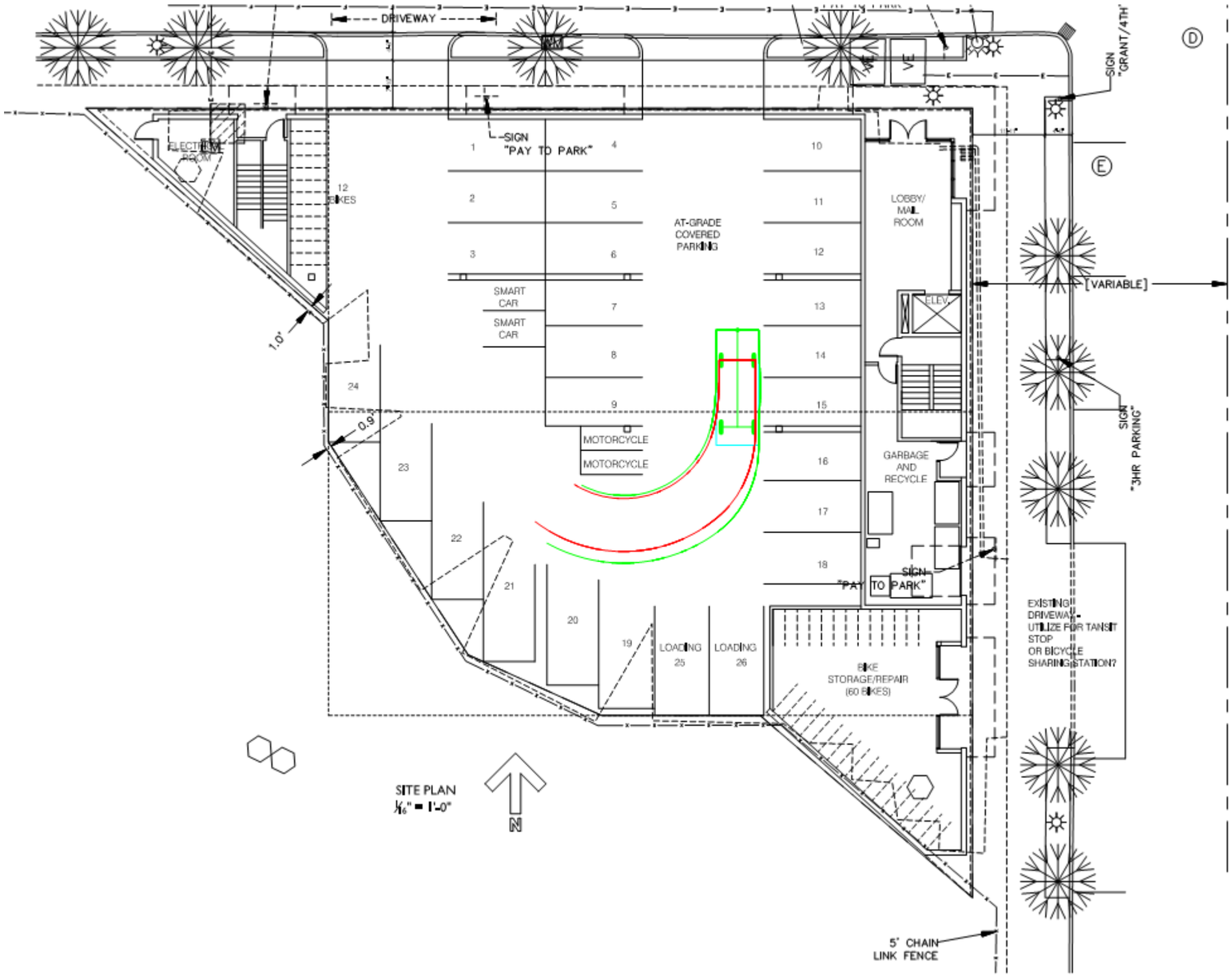
SHEET NO.
5 OF 5

PREVIOUS CONCEPT PLAN
PRE-APPLICATION [EA 15-114048]
DESIGN ADVICE REQUEST [15-153663]

Comments:
1.) Garage access: Queuing for cars out of the parking garage requires the gate to be located 20’ from the sidewalk.
2.) Vault location.
3.) Loading zone requirements, type A or B

Summary of changes:
1.) The parking garage gate is not intended for daily use, and would remain in the open position while the parking area is in use. The use of a gate would be to provide security when the parking area is closed. A warning system is planned for the single entry/exit.
2.) Utility vaults serving the project are planned to be located at grade within the covered parking area. In the event a utility vault cannot be located or relocated onto the site, the vault shall be located within the 4’ furnishing zone per city standards.
3.) Loading and unloading is proposed to be located within the covered parking area, loading activities would either temporarily utilize the on-site parking or use the drive isle as needed. A standard B loading zone 18’ long, 9’ deep and 10’ high would fit in the proposed parking garage.

Summary of changes:
1.) Reduction of driveway access to parking garage.
2.) Reduction of main level parking, increase of "active use" along 4th and Grant streets with increase of storefront glazing and building function along 4th and Grant.
3.) Wall angle and eroded corner of the main floor residential lobby emphasizes the pedestrian transition zone.



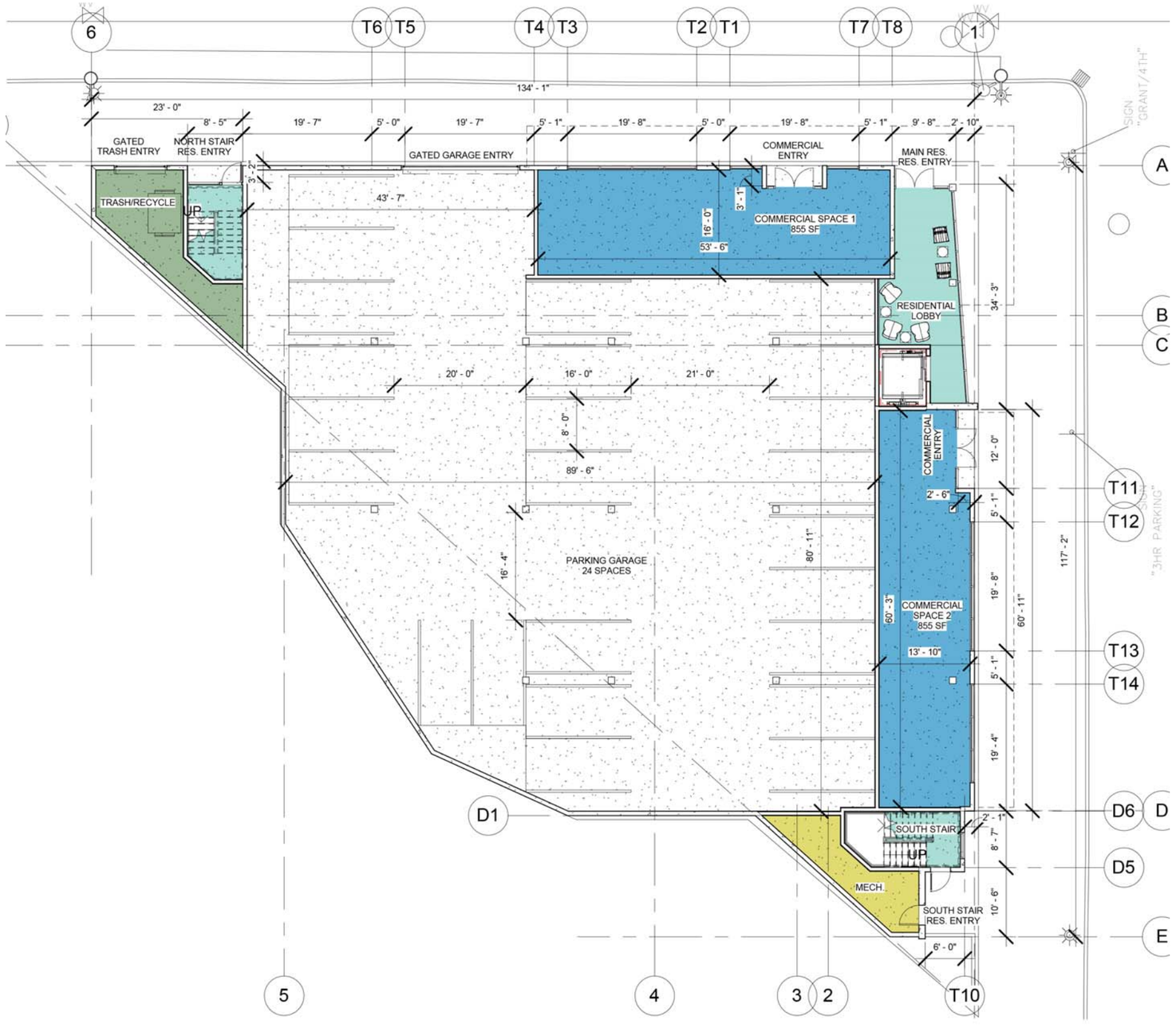
PREVIOUS TYPICAL SITE PLAN

PREVIOUS CONCEPT PLAN
PRE-APPLICATION [EA 15-114048]
DESIGN ADVICE REQUEST [15-153663]

Comments:
1.) Reduce access to parking garage to "one garage opening".
2.) Increase ground floor "active use", reduce "extensive blank walls".
3.) Develop transition zones through site.

Summary of changes:
1.) Reduction of driveway access to parking garage.
2.) Reduction of main level parking, increase of "active use" along 4th and Grant streets with increase of storefront glazing and building function along 4th and Grant.
3.) Wall angle and eroded corner of the main floor residential lobby emphasizes the pedestrian transition zone.

PREVIOUS TYPICAL MAIN LEVEL PLAN



PREVIOUS TYPICAL MAIN LEVEL PLAN

PREVIOUS CONCEPT PLAN
PRE-APPLICATION [EA 15-114048]
DESIGN ADVICE REQUEST [15-153663]

Comments:
1.) Massing Scale and Form - reduction in bulk.
2.) Outdoor space as a destination.
3.) Balconies shall have a projected max. encroachment of 4'-0".

Summary of changes:
1.) Revised shape of building to reduce building mass.
2.) Addition of second level exterior courtyard above grade level parking.
3.) Projection of balconies at 2nd level and above shall be less than 4;-0"
4.) Glazing wall and elevator lobby orientation.
5.) Configuration of dwelling unit interior to include bike storage.

PREVIOUS TYPICAL PLAN 2

PREVIOUS TYPICAL PLAN 2

PREVIOUS CONCEPT PLAN
PRE-APPLICATION [EA 15-114048]
DESIGN ADVICE REQUEST [15-153663]

Comments:
1.) Massing Scale and Form - reduction in bulk.
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Summary of changes:
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2.) Projection of balconies at 2nd level and above shall be less than 4;-0"
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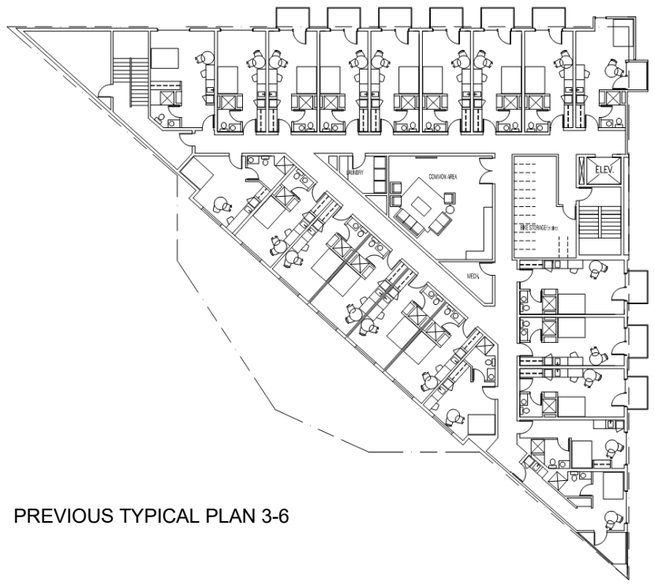

PREVIOUS TYPICAL PLAN 3-6

PREVIOUS TYPICAL PLAN 3-6

PREVIOUS APPLICATION ELEVATION

STUDY ELEVATION

STUDY ELEVATION

PREVIOUS CONCEPT PLAN
PRE-APPLICATION [EA 15-114048]
DESIGN ADVICE REQUEST [15-153663]

Comments:
1.) Massing Scale and Form - reduction in bulk.
2.) Materials: Suggestion to explore masonry based maerial to replace the metal as a primary cladding system.
3.) Rain Garden Planter on Building Wall.
4.) Ground level board form design - Better detailing is required.
5.) Vents and Louvers. Not clear how these are handled.
6.) Missing pedestrian amenities.
7.) Active corners.
8.) Parking lot access.

Summary of changes:
1.) Revised shape of building to reduce building mass, shifts in material and facade help to reduce mass.
2.) The metal siding has been exchanged with masonary brick to become the primary cladding material, while the vertical ribbed metal becomes the accent material.
3.) The hanging rain gardens on the facade have been removed from the project.
4.) Board form concrete shall be 3" uniform horizontal board form.
5.) All vents and louvers for the residential floors are to be terminated through the roof to minimize penitrations in the facade. The exception to this rule would be free air vents within the VPI vinyl windows which would be intgrated into the window and have very low visibility. Grade level vents and louvers are to be located in the spandral glazing above the canopy.
6.) Canopies, seating, and site amenities have been added and thoughtfully placed in a rhythm that compliments the architecture within the overall facade and at the pedestrian level.
7.) Active uses are not required within this zone, however, to the extent possible the grade level facades have been maximized for active uses along SW 4th and SW Grant.
8.) Parking lot access has been reduced to one point of access.

PREVIOUS APPLICATION ELEVATION

STUDY ELEVATION

STUDY ELEVATION

PREVIOUS CONCEPT PLAN
PRE-APPLICATION [EA 15-114048]
DESIGN ADVICE REQUEST [15-153663]

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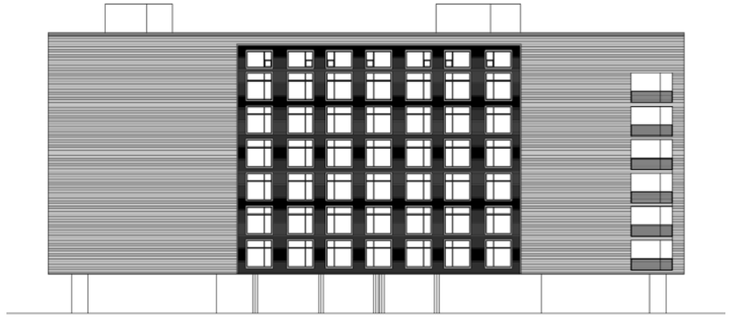

PREVIOUS APPLICATION ELEVATION

PREVIOUS CONCEPT PLAN
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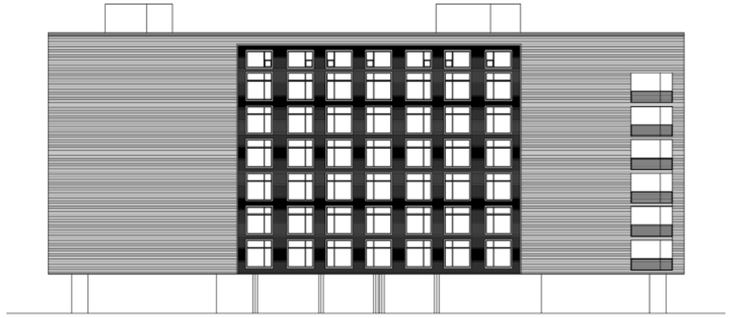
DESIGN ADVICE REQUEST [15-153663]

Comments:
1.) Massing Scale and Form - reduction in bulk.
2.) Materials: Suggestion to explore masonry based maerial to replace the metal as a primary cladding system.
3.) Vents and Louvers. Not clear how these are handled.
4.) South elevation treated like "back of house".

Summary of changes:
1.) Revised shape of building to reduce building mass, shifts in material and facade help to reduce mass.
2.) The metal siding has been exchanged with masonary brick to become the
3.) All vents and louvers for the residential floors are to be terminated through the roof to minimize penitrations in the facade. The exception to this rule would be free air vents within the VPI vinyl windows which would be intgrated into the window and have very low visibility. Grade level vents and louvers are to be located in the spandral glazing above the canopy.
 and at the pedestrian level.
4.) The South and West elevations, facing I-405, have been redesigned to provide more intrest and architectural features. The shape of the building respondes to its triangular site and has been optimized to reduce the overall mass from the former design.



PREVIOUS APPLICATION ELEVATION

STUDY ELEVATION

STUDY ELEVATION

PREVIOUS CONCEPT PLAN
PRE-APPLICATION [EA 15-114048]
DESIGN ADVICE REQUEST [15-153663]

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PREVIOUS APPLICATION PERSPECTIVE

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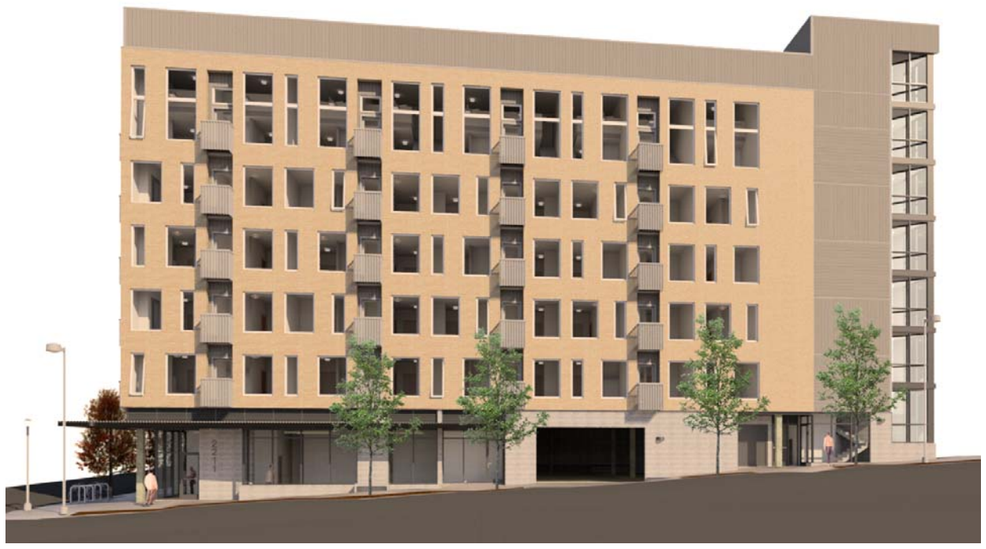
STUDY MODEL VIEWS



DESCRIPTION

The Impact Elite family of wall luminaires is the ideal complement to site design. Incorporating modular LightBAR™ technology, the Impact Elite luminaire provides outstanding uniformity and energy-conscious illumination. Combined with a rugged construction, the Impact Elite luminaire is the ideal facade and security luminaire for zones surrounding schools, office complexes, apartments and recreational facilities. UL/cUL listed for wet locations.

McGraw-Edison

Catalog #		Type	
Project			
Comments		Date	
Prepared by			

SPECIFICATION FEATURES

Construction
Heavy-wall, die-cast aluminum housing and removable hinged door frame for precise tolerance control and repeatability. Hinged door inset for clean mating with housing surface and secured via two captive fasteners. Optional tamper-resistant Torx™ head fasteners offer vandal resistant access to the electrical chamber.

Optics
Choice of six patented, high-efficiency AccuLED Optics™ distributions. Optics are precisely designed to shape the light output, maximizing efficiency and application spacing. AccuLED Optics technology creates consistent distributions with the scalability to meet customized application requirements. Offered Standard in 4000K (+/- 275K) CCT and minimum 70 CRI. Optional 3000K CCT, 5000K CCT and 5700K CCT.

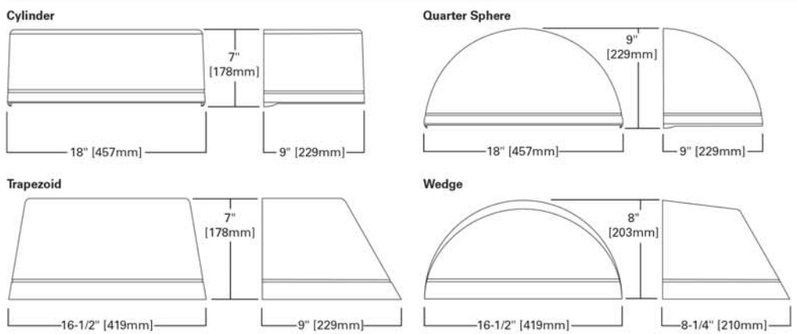
Electrical
LED drivers mount to die-cast aluminum back housing for optimal heat sinking, operation efficacy, and prolonged life. Standard drivers feature electronic universal voltage (120-277V 50/60Hz), 347V 60Hz or 480V 60Hz operation, greater than 0.9 power factor, less than 20% harmonic distortion, and are suitable for operation in -40°C to 40°C ambient environments. All fixtures are shipped standard with 10kV/10kA common – and differential – mode surge protection. LightBARs feature an IP66 enclosure rating and maintain greater than 95% lumen maintenance at 60,000 hours per IESNA TM-21. Emergency egress options for -20°C ambient environments and occupancy sensor available.

Mounting
Gasketed and zinc plated rigid steel mounting attachment fits directly to 4" j-box or wall with the Impact Elite "Hook-N-Lock" mechanism for quick installation. Secured with two captive corrosion resistant black oxide coated allen head set screws concealed but accessible from bottom of fixture.

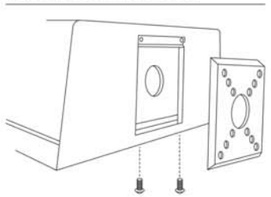
Finish
Cast components finished in a five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult the McGraw-Edison Architectural Colors brochure for the complete selection.

Warranty
Five-year warranty.

DIMENSIONS



HOOK-N-LOCK MOUNTING



ISC/ISS/IST/ISW
IMPACT ELITE LED

1 - 2 LightBARs
Solid State LED

WALL MOUNT LUMINAIRE

CERTIFICATION DATA
UL/cUL Listed
LM79 / LM80 Compliant
IP66 LightBARs
ISO 9001
DesignLights Consortium® Qualified*

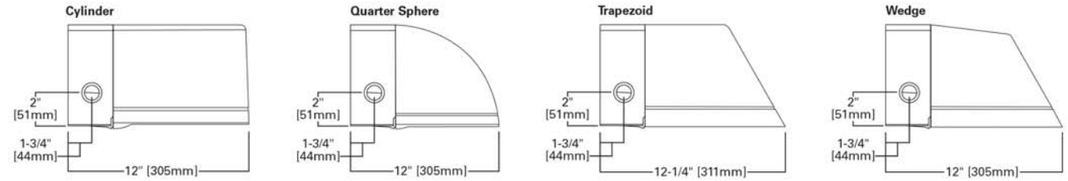
ENERGY DATA
Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120-277V/50 & 60Hz, 347V/60Hz, 480V/60Hz
-40°C Minimum Temperature
40°C Ambient Temperature Rating

SHIPPING DATA
Approximate Net Weight:
18 lbs. (8 kgs.)

*www.designlights.org

TD514002EN
2015-06-03 10:00:35

THRUWAY BACK BOX



POWER AND LUMENS BY BAR COUNT

Number of LightBARs		E01	E02	F01	F02
		21 LED LightBAR		7 LED LightBAR	
Drive Current		350mA		1A	
Power (Watts)	120-277V	25W	47W	26W	50W
Current (A)	120V	0.22	0.40	0.22	0.42
	277V	0.10	0.18	0.10	0.19
Power (Watts)	347V or 480V	31W	52W	32W	55W
Current (A)	347V	0.11	0.16	0.11	0.17
	480V	0.16	0.18	0.16	0.18
Optics					
BL2	Lumens	2,738	5,476	2,260	4,521
	Bug Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1
BL3	Lumens	2,702	5,405	2,231	4,462
	Bug Rating	B1-U0-G1	B1-U0-G2	B1-U0-G1	B1-U0-G1
BL4	Lumens	2,613	5,225	2,157	4,313
	Bug Rating	B1-U0-G1	B1-U0-G2	B1-U0-G1	B1-U0-G1
GZW	Lumens	2,785	5,570	2,299	4,598
	Bug Rating	B2-U0-G2	B3-U0-G3	B1-U0-G1	B2-U0-G2
SLR/SLL	Lumens	2,435	4,869	2,010	4,020
	Bug Rating	B1-U0-G1	B1-U0-G2	B1-U0-G1	B1-U0-G2

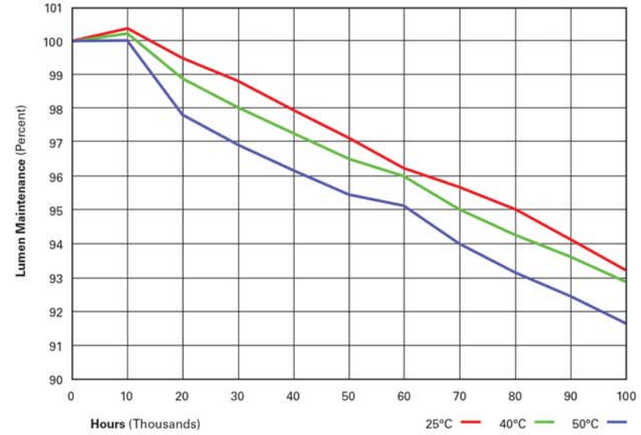
LUMEN MAINTENANCE

Ambient Temperature	25,000 Hours*	50,000 Hours*	60,000 Hours*	100,000 Hours	Theoretical L70 (Hours)
25°C	> 99%	> 97%	> 96%	> 93%	> 450,000
40°C	> 98%	> 97%	> 96%	> 92%	> 425,000
50°C	> 97%	> 96%	> 95%	> 91%	> 400,000

* Per IESNA TM-21 data.

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.02
15°C	1.01
25°C	1.00
40°C	0.99



ORDERING INFORMATION

Sample Number: ISC-E02-LED-E1-BL3-GM

Product Family [1]	Number of LightBARs [2,3]	Lamp Type	Voltage	Distribution	Color [5]
ISC=Impact Elite LED Small Cylinder **ISS**=Impact Elite LED Small Quarter Sphere **IST**=Impact Elite LED Small Trapezoid **ISW**=Impact Elite LED Small Wedge	**E01**=(1) 21 LED LightBAR **E02**=(2) 21 LED LightBARs **F01**=(1) 7 LED LightBAR **F02**=(2) 7 LED LightBARs	**LED**=Solid State Light Emitting Diodes	**E1**=Electronic (120-277V) **347**=347V **480**=480V [4]	**BL2**=Type II w/Back Light Control **BL3**=Type III w/Back Light Control **BL4**=Type IV w/Back Light Control **GZW**=Wall Grazer Wide **SLL**=90° Spill Light Eliminator Left **SLR**=90° Spill Light Eliminator Right	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White

Options (Add as Suffix)	Accessories (Order Separately) [11]
2L=Two Circuits [6] **7030**=70 CRI / 3000K CCT [7] **7050**=70 CRI / 5000K CCT [7] **7060**=70 CRI / 5700K CCT [7] **8030**=80 CRI / 3000K CCT [7] **P**=Button Type Photocontrol (Available in 120, 208, 240 or 277V. Must Specify Voltage) **OSB**=Occupancy Sensor with Back Box (Specify 120V or 277V) [8] **BBB-XX**=Battery Pack with Back Box (Specify 120V or 277V) [9] **CWB-XX**=Cold Weather Battery Pack with Back Box (Specify 120V or 277V) [10] **DIM**=0-10V Dimming Drivers **LCF**=LightBAR Cover Plate Matches Housing Finish **ULG**=Uplight Glow **TR**=Tamper Resistant Hardware	**MA1253**=10kV Circuit Module Replacement **MA1254-XX**=Thruway Back Box - Impact Elite Trapezoid **MA1255-XX**=Thruway Back Box - Impact Elite Cylinder **MA1256-XX**=Thruway Back Box - Impact Elite Quarter Sphere **MA1257-XX**=Thruway Back Box - Impact Elite Wedge

NOTES:
1. DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
2. Standard 4000K CCT and greater than 70 CRI. LightBARs for downlight use only.
3. 21 LED LightBAR powered by 350mA and 7 LED LightBAR powered by 1A.
4. Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
5. Custom and RAL color matching available upon request. Consult your lighting representative at Eaton for more information.
6. Low-level output varies by bar count. Consult factory. Not available with 347V or 480V. Available with two bars (E02 or F02) only.
7. Extended lead times apply.
8. Available with E02 or F02, only one bar on street side will be wired to sensor. Time delay factory setting 15-minutes. When ordered with PC option, both bars are connected to photocontrol as primary switching means. Standard sensor lens covers 8' mounting height, 360° coverage, maximum 48' diameter. Not available in all configurations or with BBB or CWB options.
9. Specify 120V or 277V. LED standard integral battery pack is rated for minimum operating temperature 32°F (0°C). Operates one bar for 90-minutes. Not available in all configurations or with OSB option. Consult factory.
10. Specify 120V or 277V. LED cold weather integral battery pack is rated for minimum operating temperature -4°F (-20°C). Operates one bar for 90-minutes. Not available in all configurations or with OSB option. Consult factory.
11. Replace XX with color suffix.

Eaton
1121 Highway 74 South
Peachtree City, GA 30269
P: 770-486-4800
www.eaton.com/lighting

Specifications and dimensions subject to change without notice.

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2015-06-03 10:00:35

CITY OF PORTLAND BUREAU OF TRANSPORTATION

Steve Novick
Commissioner

Leah Treat
Director

Structurally Pre-Approved Vaults for Use in the Right-of-Way

Vault Model	Date Approved	Manufacturer	Bureau
1020	10/4/2001	Utility Vault Company	
1024-106	7/19/2000	Utility Vault Company	
233-LA	4/28/1997	Pipe Vault Company, Utility Vault Company	
25-TA	4/28/1997	Utility Vault Company	
253-TA	4/28/1997	Utility Vault Company	
264-TA	4/28/1997	Utility Vault Company	
3030-LA	4/28/1997	Utility Vault Company	
38-TA	4/28/1997	Utility Vault Company	
440-LA	4/28/1997	Utility Vault Company	
444-LA	4/28/1997	Utility Vault Company	
444-MFS	-	Pipe Vault Company	
446-LA	4/28/1997	Utility Vault Company	
4484-LA	4/28/1997	Utility Vault Company	
4484-TA	4/28/1997	Utility Vault Company	
4484-TCA	4/28/1997	Utility Vault Company	
463-TA	8/29/2003	Utility Vault Company	
466-TA	4/28/1997	Utility Vault Company	
467-TA	4/28/1997	Utility Vault Company	
4686	4/28/1997	Utility Vault Company	
496-LA	4/28/1997	Utility Vault Company	
504-LA	4/28/1997	Utility Vault Company	
506-LA	4/28/1997	Utility Vault Company	
5106-LA	4/28/1997	Utility Vault Company	
5106-TA	4/28/1997	Pipe Vault Company, Utility Vault Company	
5106-TCA	4/28/1997	Utility Vault Company	
554	-	Pipe Vault Company	
555-WA	4/28/1997	Utility Vault Company	
556	-	Pipe Vault Company	
557-LA	4/28/1997	Utility Vault Company	
575-LA	4/28/1997	Utility Vault Company	PWB
577	-	Pipe Vault Company	
577-LA	4/28/1997	Utility Vault Company	
612	-	Pipe Vault Company	
612-2 Peak Diversion Stormfilter	5/29/2014	Utility Vault Company	BES
612-LA	4/28/1997	Utility Vault Company	
612-7-TA	4/28/1997	Utility Vault Company	
612-7-TCA	4/28/1997	Utility Vault Company	
616-9-TA	4/28/1997	Utility Vault Company	
620-LA	4/28/1997	Utility Vault Company	
644-SECT-25LA	4/28/1997	Utility Vault Company	
660-LA	4/28/1997	Utility Vault Company	
687	4/28/1997	Utility Vault Company	PWB
687-LA	4/28/1997	Utility Vault Company	
687-SM	-	Utility Vault Company	BES
687-TA	4/28/1997	Utility Vault Company	
712	4/28/1997	Pipe Vault Company, Utility Vault Company	
776-LA	4/28/1997	Utility Vault Company	
810	4/28/1997	Utility Vault Company	PWB
810-TA	4/28/1997	Utility Vault Company	
814	-	Pipe Vault Company	PWB
814-LA	4/28/1997	Utility Vault Company	
814-TA	4/28/1997	Utility Vault Company	
816	4/28/1997	Utility Vault Company	
818	-	Pipe Vault Company	
818-LA	11/29/1999	Utility Vault Company	
818-TA	4/28/1997	Utility Vault Company	
824-Panel Vault	4/28/1997	Utility Vault Company	
990-TA	-	Utility Vault Company	
GTE-35	4/28/1997	Utility Vault Company	
Newbasis 3048 (sidewalk only)	8/6/2012	Utility Vault Company	
Synertech 1118	1/1/2001	Utility Vault Company	
Synertech 1212	1/2/2001	Utility Vault Company	
Synertech 1324	1/3/2001	Utility Vault Company	
Synertech 1730	1/4/2001	Utility Vault Company	
Synertech 2436	1/5/2001	Utility Vault Company	
Synertech 3048	1/6/2001	Utility Vault Company	
Synertech 3660	1/7/2001	Utility Vault Company	

1120 SW Fifth Avenue, Suite 800 • Portland, OR 97204 • 503-823-5185
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308.2.07 UTILITY ACCESS DOORS - SLIP RESISTANCE

Access doors shall be constructed of steel, aluminum, or concrete with an approved non-slip surface having a static coefficient of friction between 0.60 and 1.00 as determined by ASTM Designation C 1028-89. Access doors on inclined surfaces greater than 4% shall have a coefficient of friction between 0.80 and 1.00.

Owners are responsible to maintain the non-slip characteristics of the access door over its life in the sidewalk area.

Approved Metal Non-slip surfaces (July 2003)

Product	**COF**	**Manufacturer**
SlipNOT Grip Plate Grade 1 (Fine) Grade 2 (Medium) in Galvanized Steel or Aluminum	 0.95 0.98	SlipNOT Safety Flooring, W.S. Molnar Company, Detroit, MI Website: www.slipnot.com
Mebac Grade 3, Galvanized Steel Mebac Grade 2, Galvanized Steel Mebac Grade 2, Aluminum EZ Weld, Aluminum	0.96 0.93	IKG Mebac Slip Resistant Metal Surfaces, IKG Industries, Harsco Corporation, Clark, NJ Website: www.ikgindustries.com
Algrip 2000	0.80	Grating Pacific LLC, Seattle, WA Website: www.gratingpacific.com
ALCOA Aluminum Tread Plate - Lightly sandblasted	0.87	LW Products, Woodinville, WA Website: www.lwproducts.net/
Gratemaster Transformer Vault Ventilation Grate used by PGE 13.5" X 13.5" surface area	0.70	Gratemaster Inc. PO Box 1040 North Plains, OR 97133-1040
Synertech Underground Products Oldcastle Precast underground enclosures – Used by Qwest High Density Polymer Concrete	0.88	Utility Vault Company Division of Oldcastle Precast, Inc. Website: www.oldcastle-precast.com Wilsonville, OR [503.682.2844]
Syracuse Castings Safety Sure Grip Diamond Plate, Syracuse Castings, Cicero NY Used by BWW	0.94	Utility Vault Company Division of Oldcastle Precast, Inc. Website: www.oldcastle-precast.com Wilsonville, OR [503.682.2844]
US Castings, Entiat, WA 332 Aluminum Cast Doors for Utility Vault Company	0.98	Utility Vault Company Division of Oldcastle Precast, Inc. Website: www.oldcastle-precast.com Wilsonville, OR [503.682.2844]
Qwest 30 Cast Iron Manhole cover Qwest, Attn: Scott Miller 8021 SW Capitol Hill Road / 110 Portland, OR 97219	0.80	Utility Vault Company Division of Oldcastle Precast, Inc. Website: www.oldcastle-precast.com Wilsonville, OR [503.682.2844]

Additional products may be approved by the City Engineer on an "approved equal" basis. COF – Coefficient of Friction (wet)

STRINSP/SPECS 98/308.2.07 UTILITY ACCESS DOORS - SLIP RESISTANCE