

Development Services

From Concept to Construction

Phone: 503-823-7300 Email: bds@portlandoregon.gov 1900 SW 4th Ave, Portland, OR 97201

More Contact Info (<http://www.portlandoregon.gov/bds/article/519984>)



APPEAL SUMMARY

Status: Decision Rendered

Appeal ID: 22190	Project Address: 1500 SW Taylor St
Hearing Date: 12/11/19	Appellant Name: Charles Kidwell
Case No.: B-003	Appellant Phone: 5032282840
Appeal Type: Building	Plans Examiner/Inspector: Steve Mortensen
Project Type: commercial	Stories: 7 Occupancy: B, R-2, S-2 Construction Type: I-A, III-A
Building/Business Name: 1500 SW Taylor Apts	Fire Sprinklers: Yes - Throughout
Appeal Involves: Erection of a new structure	LUR or Permit Application No.: 19-178898-CO
Plan Submitted Option: pdf [File 1] [File 2] [File 3] [File 4] [File 5] [File 6]	Proposed use: Multi-Family Residential

APPEAL INFORMATION SHEET

Appeal item 1

Code Section	403.4.7 Smoke Removal
Requires	<p>403.4.7 Smoke Removal. To facilitate smoke removal in post-fire salvage and overhaul operations, buildings and structures shall be equipped with natural or mechanical ventilation for removal of products of combustion in accordance with one of the following:</p> <p>Easily identifiable, manually operable windows or panels shall be distributed around the perimeter of each floor at not more than 50-foot intervals. The area of operable windows or panels shall be not less than 40 square feet per 50 linear feet of perimeter.</p> <p>Mechanical air-handling equipment providing one exhaust air change every 15 minutes for the area involved. Return and exhaust air shall be moved directly to the outside without recirculation to other portions of the building.</p> <p>Any other approved design that will produce equivalent results.</p> <p>The proposed Building Design is compliant with provision #3 above.</p>
Proposed Design	<p>The proposed building occupies the entirety of Parcel I & Parcel 2, Block 319, bounded by SW Taylor St. on the north, by SW 15th Ave. on the east and by property under other ownership to the south & west.</p> <p>The south and west walls of the building are directly adjacent (less than 1 foot) from the property lines of lots under other ownership. See Exhibits 1 & 2 for the building orientation to the adjacent properties.</p> <p>Due to the proximity of the east and south walls to the property lines, no windows are allowed according to Table 705.8 Exterior Wall Openings. Therefore, both of those facades have no</p>

windows.

The north and east exterior walls facing the streets and the west façade that is not adjacent to the property line are fully compliant with the ventilation requirements of section 403.4.7 Smoke Removal.

This means that all proposed apartments units meet the intent of the Smoke Removal ventilation requirement. The absence of windows at the facades adjacent to the property lines does not diminish the quantity of windows available to fire department personnel for post-fire ventilation. See Exhibit #3 for a summary of windows provided at each level of the Apartment Building which demonstrates compliance with the applicable code requirement.

See Exhibits #4, 5 & 6 for illustrations of each building façade and window configuration. Also note that the building has an automatic sprinkler system per 903.3.1.1 throughout.

Reason for alternative The apartment units at the ends of the building adjacent to the property lines have the exact same amount of window ventilation as the other apartments that are not at the ends of the building. In all cases, all apartments in the building are provided with operable windows that are fully compliant with the ventilation requirements of section 403.4.7 Smoke Removal. Therefore, the proposed Building Design is compliant with 403.4.7 provision #3. We believe that the proposed building design provides operable windows for post-fire ventilation equivalent the intent of OSSC 403.4.7 Smoke Removal. We believe that the proposed design meets or exceeds the criteria for approval and request that it be approved as proposed.

Appeal item 2

Code Section OSSC Table 503; General Building Height and Area Limitations. Other related sections: 303.1.1, 303.1.2 and 504.2

Requires Occupied rooftop use, Group B Occupancy as an accessory to R-2 Occupancy allowed. The building height and area shall not exceed the limits specified in Table 503 based on the type of construction as determined by Section 602 and the occupancies as determined by Sections 302 & 303. Per section 303.1.1 Small buildings and tenant spaces; A building or tenant space used for assembly purposes with an occupant load of less than 50 persons shall be classified as a Group B occupancy.

303.1.2 Small assembly spaces. The following rooms and spaces shall not be classified as Assembly occupancies:

A room or space used for assembly purposes with an occupant load of less than 50 persons and accessory to another occupancy shall be classified as a Group B occupancy or as part of that occupancy.

A room or space used for assembly purposes that is less than 750 square feet in area and accessory to another occupancy shall be classified as a Group B occupancy or as part of that occupancy.

The proposed roof deck is compliant with these provisions.

Per Table 503, the maximum number of stories allowed for a B Occupancy in Type IIIA Construction and R-2 occupancy is 6 stories when equipped with an approved automatic sprinkler system in accordance with Section 903.3.1.1 per section 504.2.

504.2 Automatic sprinkler system increase. Where a building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, the value specified in Table 503 for maximum building height is increased by 20 feet and the maximum number of stories is increased by one.

Proposed Design The proposed project consists of a 5 Story Type IIIA Construction Residential building above a 2 Level Type IA 'Building Podium'.

Per 509.2 the building is 5 stories of Type IIIA construction over a Type IA Podium with mixed uses.

The proposed design includes an occupied roof deck above the residential use.

The building rooftop has a designated patio deck of 749 SF for the use of the apartment residents only. The paved patio deck will include open seating and amenities for urban outdoor use. The patio roof deck is open on all four sides (no enclosures), with perimeter railings to restrict access to the surrounding roof areas. There are no overhead structures proposed.

For the purposes of assigning an occupancy classification in this patio deck area, the Business Group B was used since occupancy is under 50 (even though the space will be restricted for use exclusively by building residents which classifies the main occupancy as R-2). Section 303.1.1 and 303.1.2 acknowledge that small assembly spaces are allowed to be figured as a B Group therefore the area will serve 49 occupants.

There are two paved walkways connecting to the two exit stair enclosures, which is not included in the patio deck area calculations. This provides two means of egress from the patio deck along a well-defined illuminated egress path to separate two-hour rated stairways. Both of the stair/exits extend continuously through the building and terminate at grade onto the public way.

The building will be equipped an approved automatic sprinkler system per 903.3.1.1 throughout.

Reason for alternative The proposed roof deck is not a habitable space per OSSC 202 (i.e. It does not include any space for living, sleeping, cooking, bathrooms, toilet rooms, closets, halls, storage or utility spaces). This area is only accessible from the dwelling unit floors below and is not open to, or available for rent by the general public. The roof deck will only be used by the residents of the building and their guests.

Table 503 identifies "Height limitations shown as stories and feet above grade plane" and the occupied roof deck is not considered a story. We believe that the proposed design provides equivalent or greater accommodations for the use of this area as summarized below:

- ? The roof deck has a very clear exiting system to evacuate occupants from the roof deck in the event of a fire. This includes providing an egress path across the deck surface that in the event of a loss of power will have a back-up source of illumination at the walking surface.
- ? The roof deck is open to two public streets which allow frontage increases to the south and east.
- ? Fire apparatus access is available along the both north (SW Taylor) and east SW 15 Ave) frontages.
- ? The roof deck is constructed with a 1 hour rated roof/ ceiling assembly.
- ? The roof structure has been designed to accommodate the live load requirements of occupancy.

We believe that the proposed design meets or exceeds the criteria for approval and request that it be approved as proposed.

Appeal item 3

Code Section OSSC Section 603

Requires Types I and II Construction are those types of construction in which the building elements listed in Table 601 are of not combustible materials except as listed in Section 603 of this code.

603.1 Allowable materials.

Combustible materials shall be permitted in buildings of Type I or II construction in the following applications and in accordance with Sections 603.1.1 through 603.1.3:

Roof coverings that have an A, B or C classification.

Combustible exterior wall coverings, balconies and similar projections and bay or oriel windows in accordance with Chapter 14.

1403.5 Vertical and lateral flame propagation.

Exterior walls on buildings of Type I, II, III or IV construction that are greater than 40 feet in height above grade plane and contain a combustible water-resistive barrier shall be tested in accordance

with and comply with the acceptance criteria of NFPA 285. For the purpose of this section, fenestration products and flashing of fenestrations shall not be considered part of the water resistive barrier.

Proposed Design	<p>The proposed building design is a mixed-use apartment building, with 5-stories of Type IIIA construction, over 2 levels of Type IA construction. The building and parking structure both have full sprinkler coverage per section 9.3.1.1.</p> <p>The construction of the canopies located above the ground story entrances include a wood material finish that is attached to the non-combustible supporting steel frame. The canopy structure is steel, and tops of the canopies are covered with standing seam metal or plate steel. All non-combustible materials.</p> <p>The underside of the canopy will be finished with a tropical hardwood soffit. Either Ipe, Red Balau, Tiger Wood, Sapele or Kumaru. Tropical hardwoods are known for their resistance to attack by both fungi and insects, as well as having a Class A fire rating - the same rating given to concrete and steel. All of these tropical hardwoods have a Class A Flame Spread Index (not more than 25). Final selection of the tropical hardwood type to be used will be based on availability in FSC wood supply; based on availability, the owner will select one of the woods indicated above.</p> <p>See the attached PDF drawing exhibits for location and construction information regarding where applied wood finish has been added to the underside of the steel canopy structure);</p> <p>? A401 – Ground Floor Plan RCP</p> <p>? A850/854 – Typical Canopy Plan & Canopy Section Detail</p> <p>See attached wood product information for proposed tropical hardwoods.</p>
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Reason for alternative	<p>The applied tropical hardwood finish provides a softer/warmer more appealing appearance to the occupants while maintaining fire resistive properties. As well as offers a contrast to the brick and steel.</p> <p>The primary framing which holds the canopy in place is steel, and is non-combustible, so the structural assembly meets the criteria set forth in the OSSC for allowed combustible element. And the tropical hardwood holds a Class A fire rating and has a flame spread index of not more than 25.</p> <p>We believe that the proposed design meets or exceeds the criteria for approval and request that it be approved as proposed.</p>
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APPEAL DECISION

1. Post fire smoke removal by natural ventilation only without distribution of windows around full building perimeter: Granted as proposed.

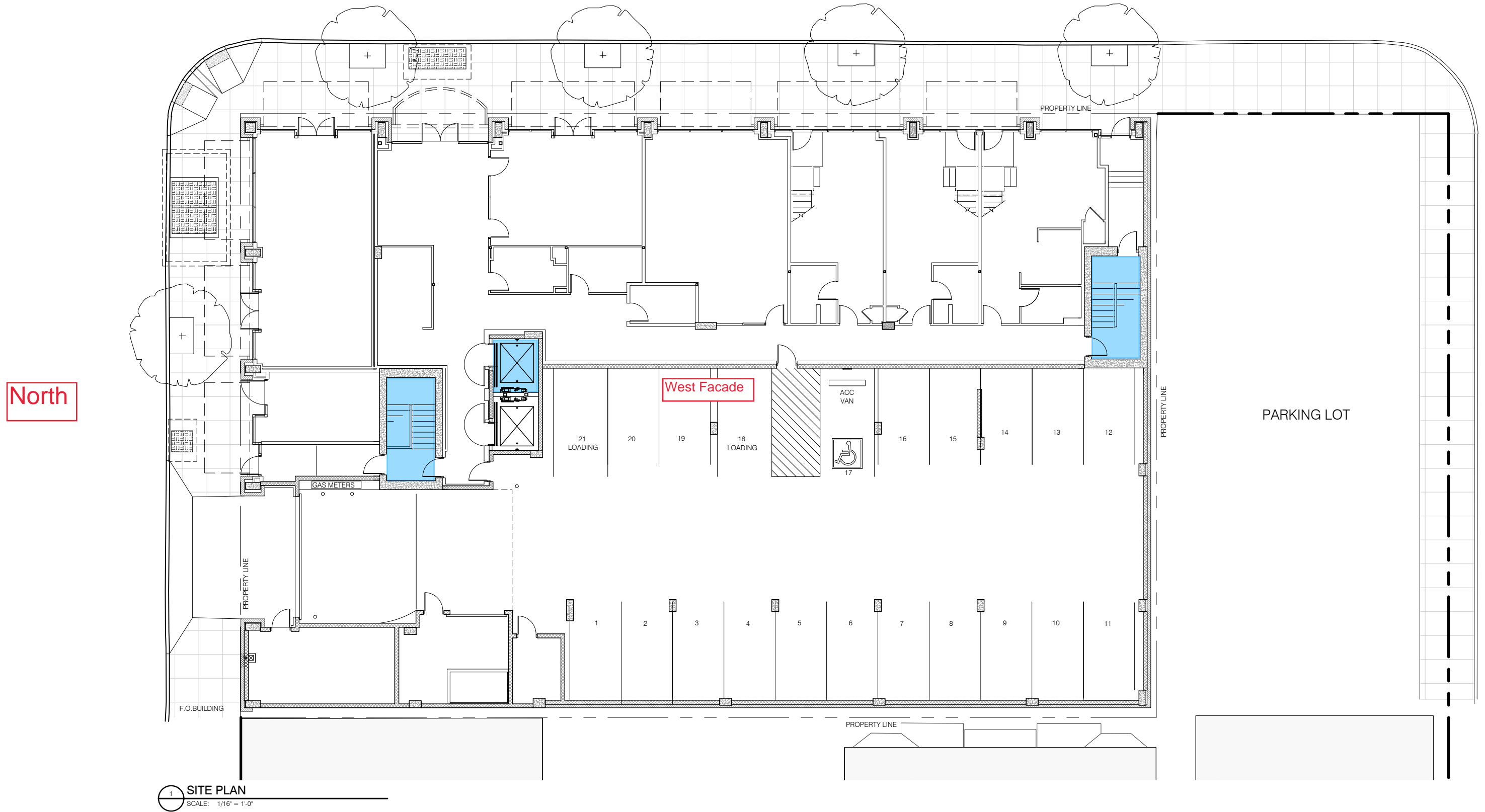
2. Roof deck located above maximum number of stories: Granted as proposed per ICC approved 2018 IBC model code change lifting restriction on location of roof decks in a fully sprinkled building and with occupant notification in the area of the occupied roof. Elements or structures enclosing the occupied roof areas shall not extend more than 48" inches above the surface of the occupied roof. Fire Marshal's office may revoke if found to be in violation of this appeal.

3. Use of combustible Class A tropical wood cladding at canopy soffits: Granted as proposed.

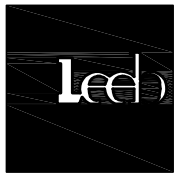
Appellant may contact John Butler (503 823-7339) with questions.

The Administrative Appeal Board finds that the information submitted by the appellant demonstrates that the approved modifications or alternate methods are consistent with the intent of the code; do not lessen health, safety, accessibility, life, fire safety or structural requirements; and that special conditions unique to this project make strict application of those code sections impractical.

Pursuant to City Code Chapter 24.10, you may appeal this decision to the Building Code Board of Appeal within 90 calendar days of the date this decision is published. For information on the appeals process, go to www.portlandoregon.gov/bds/appealsinfo, call (503) 823-7300 or come in to the Development Services Center.



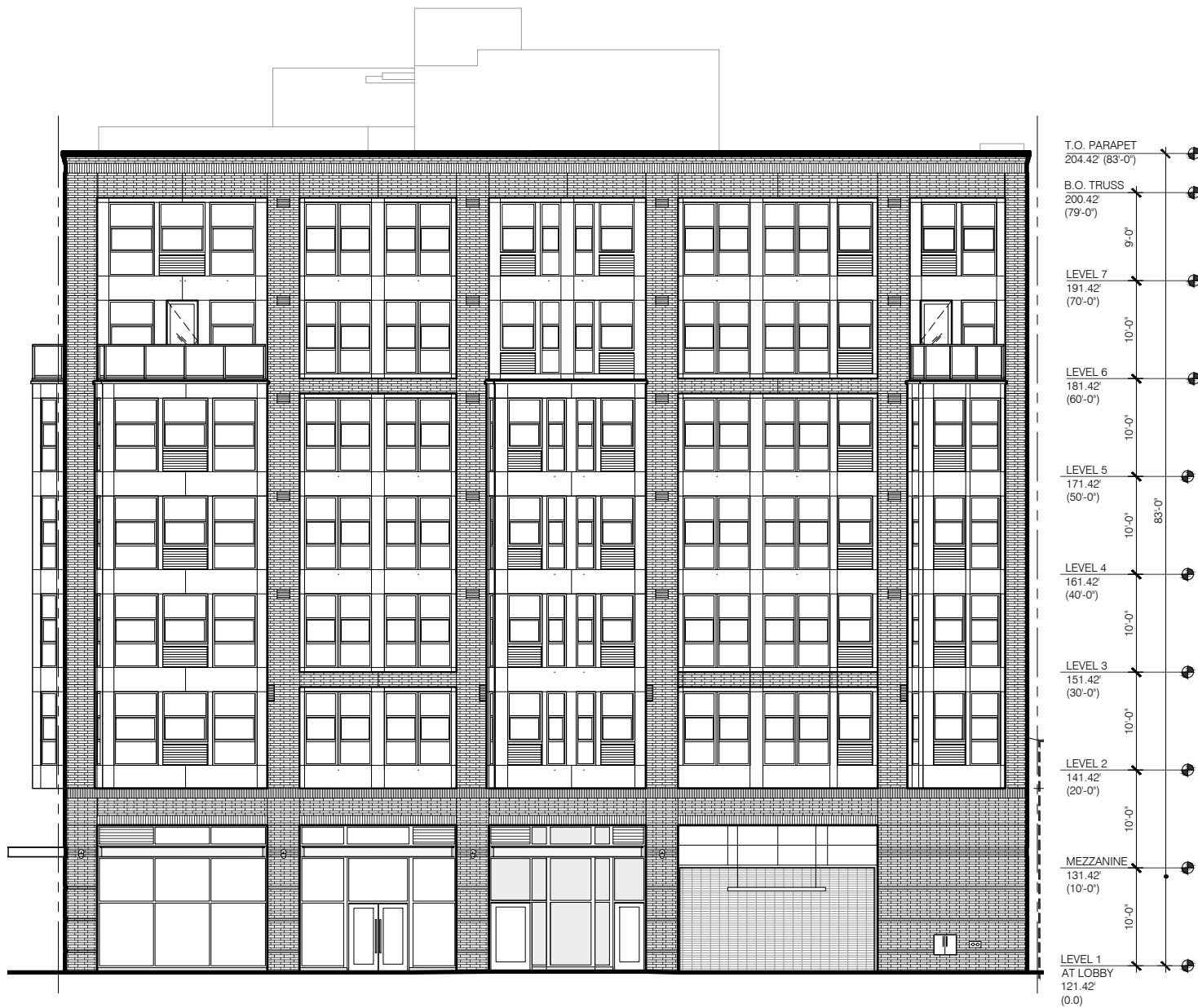
1 SITE PLAN
SCALE: 1/16" = 1'-0"



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Portland Or 97204
Phone 503.228.2840
leebarc.com

1500 TAYLOR STREET
Portland, Oregon
for SHELTER HOLDINGS

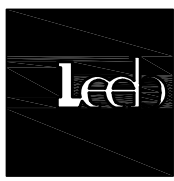
G103
Scale: 1/16" = 1'-0"
Date: 22 Nov 2019
By: JW / CTK



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



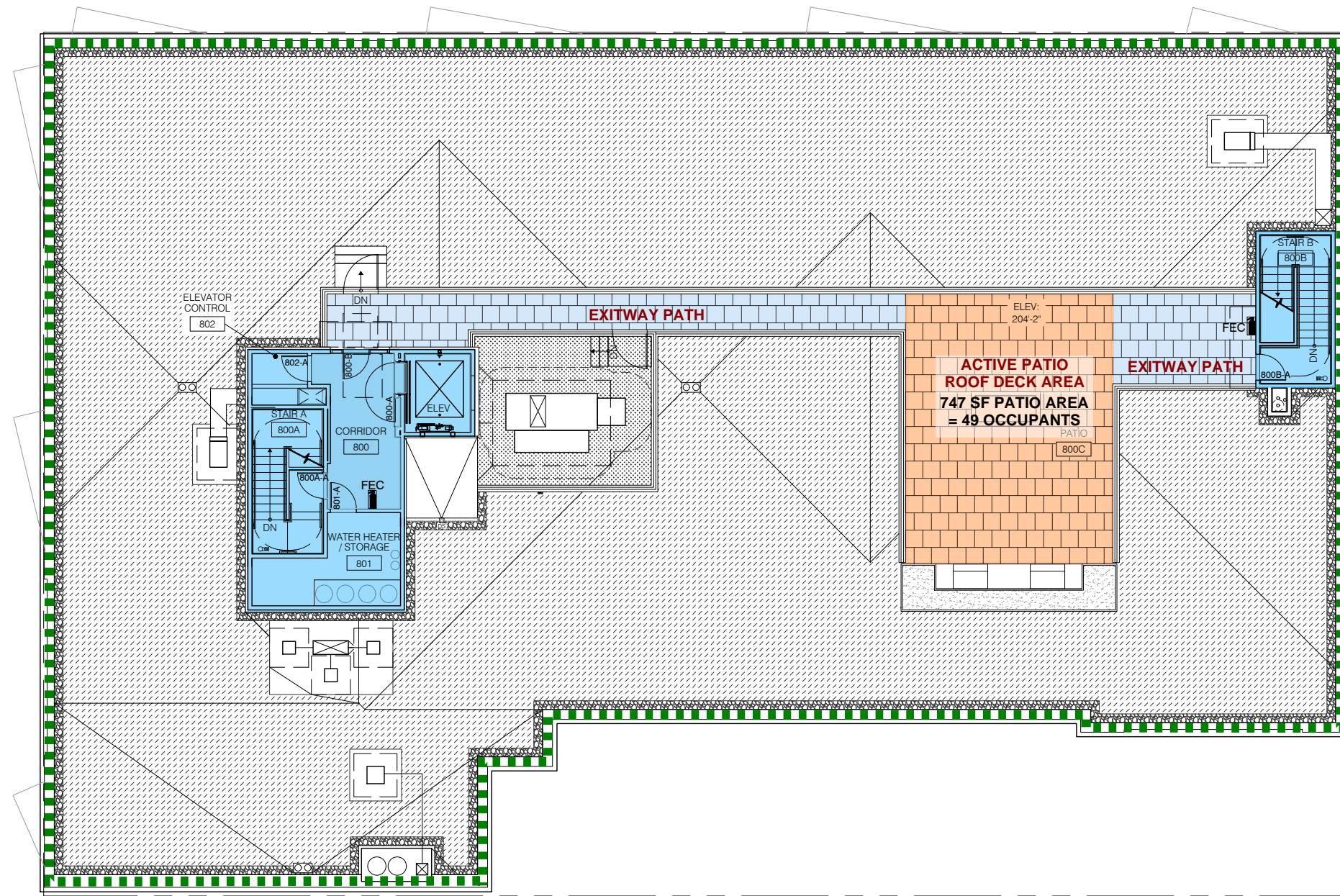
2 BUILDING SECTION
SCALE: 1/8" = 1'-0"



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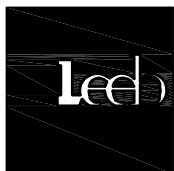
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A602 / A611
Scale: 1/8" = 1'-0"
Date: 22 Nov 2019
By: JW / CTK



1 ROOF PLAN
SCALE: 1/16" = 1'-0"

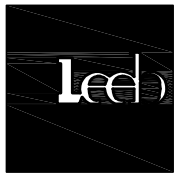
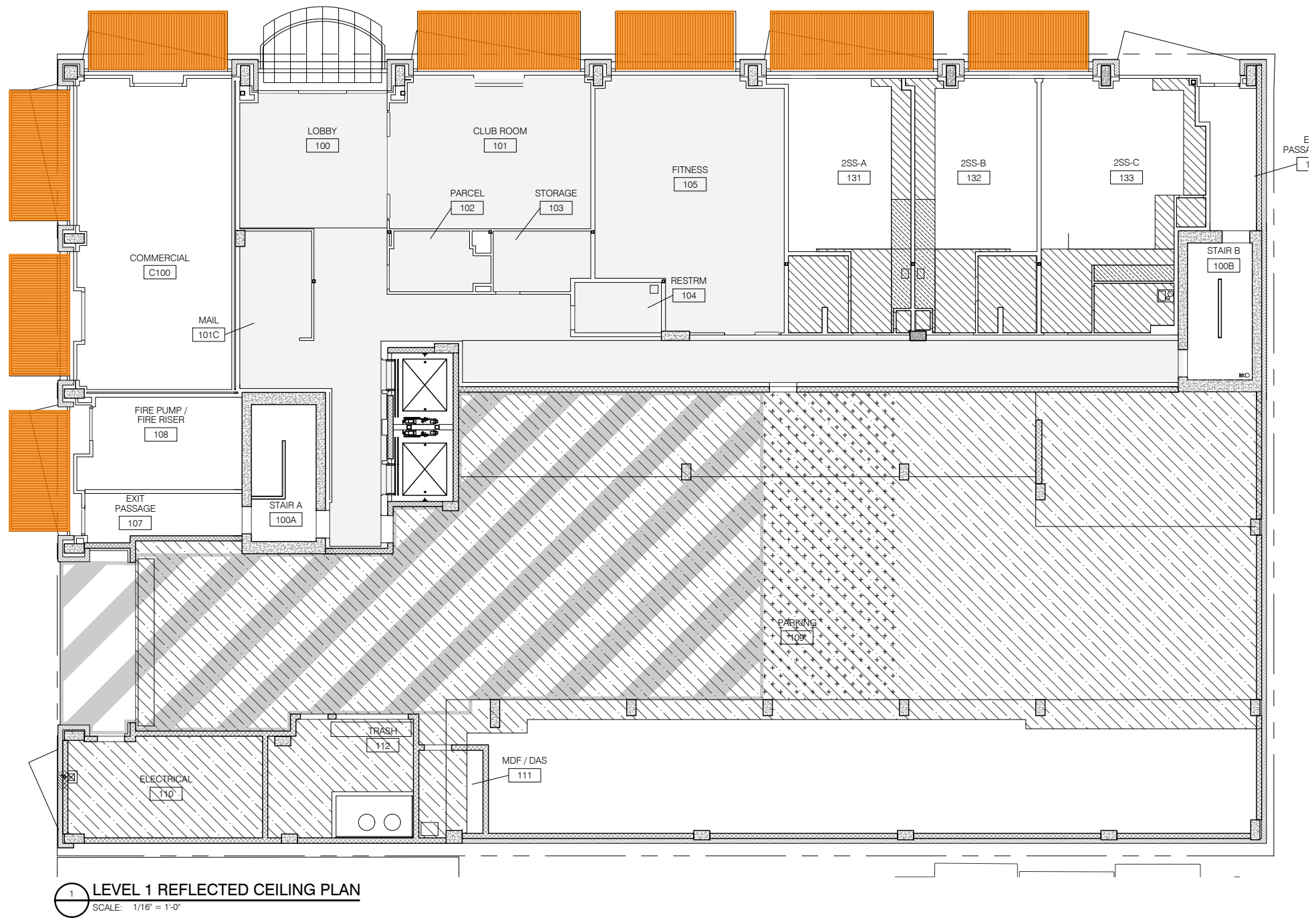
STAIR | ELEVATOR LOBBIES: 795sf
ACTIVE PATIO ROOF DECK AREA: 747sf
 TOTAL ROOF: 12,382sf



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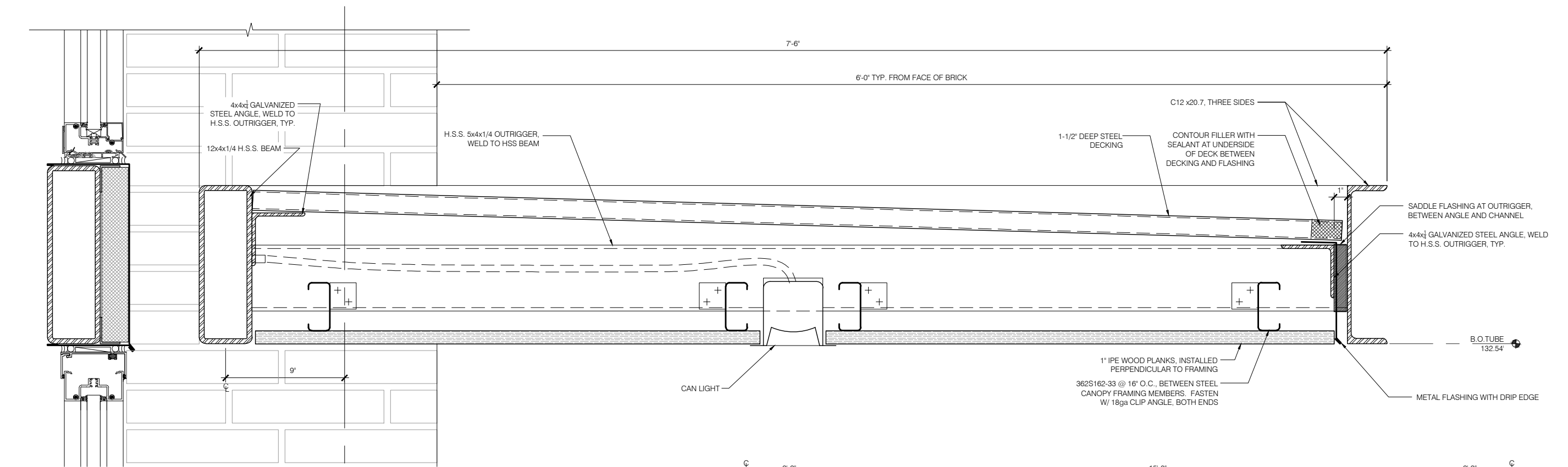
A109
 Scale: 1/16" = 1'-0"
 Date: 22 Nov 2019
 By: JW / CTK



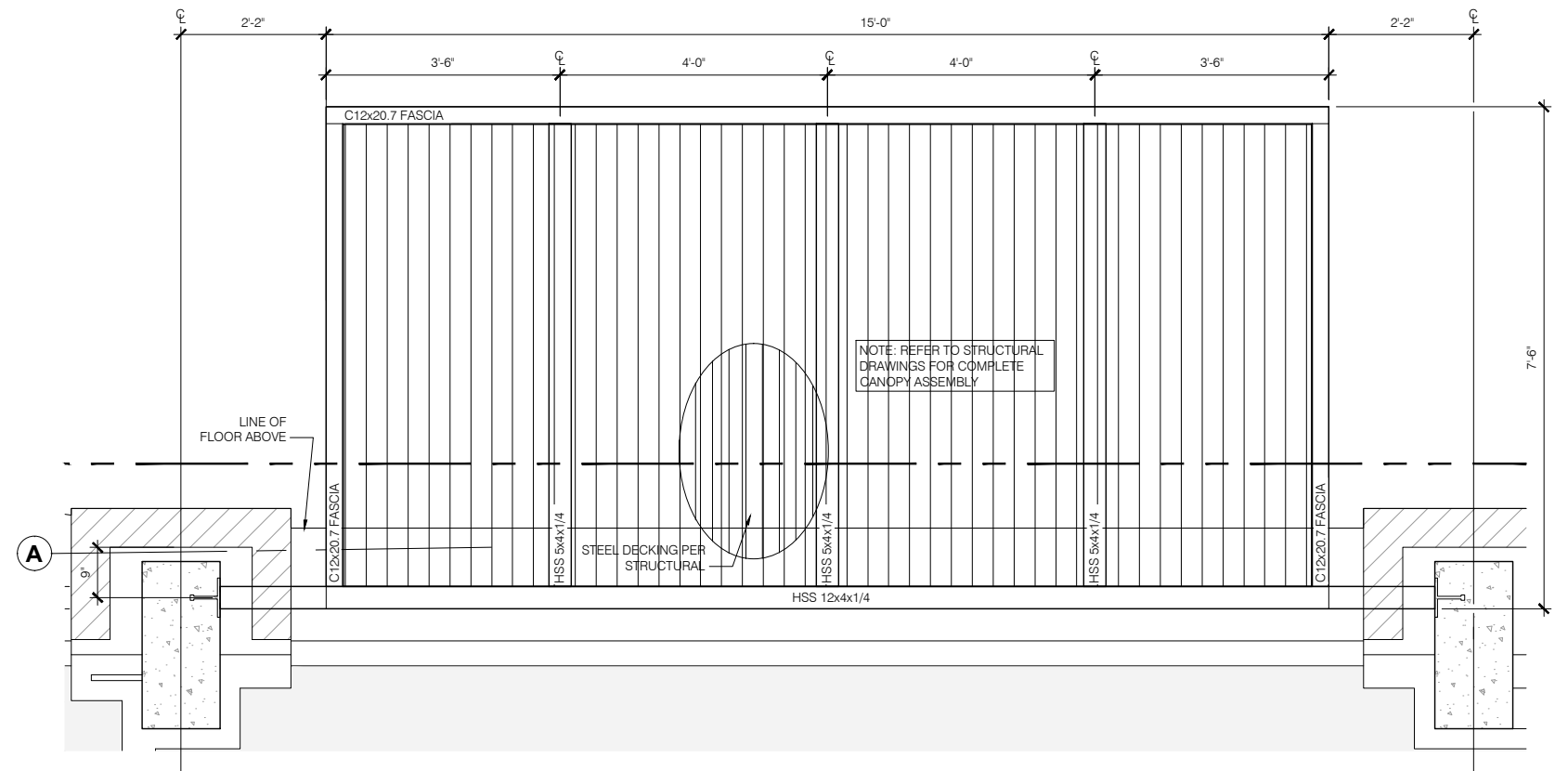
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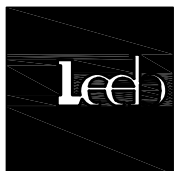
A401
 Scale: 1/16" = 1'-0"
 Date: 22 Nov 2019
 By: JW / CTK



1 TYPICAL CANOPY SECTION - LEVEL 1
SCALE: 1-1/2" = 1'-0"



2 TYPICAL CANOPY - LEVEL 1
SCALE: 3/8" = 1'-0"



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A850/A854
Scale: Per Drawing
Date: 22 Nov 2019
By: JW / CTK



Innovative Products

February 2016

TESTING DATA

Bison Innovative Products

At Bison, we use nationally accepted criteria and independent testing labs to test our products and systems. Where necessary, Bison specifications provide a Factor of Safety (FoS) based on actual testing data and conforming with industry standards. Please contact us for more information on a specific test or for copies of the actual test reports.

Bison Pedestals & Accessories Material Testing				
Test	Description			Bison Results
ASTM D792 ASTM D638 ASTM G155 ASTM G26 ASTM D790 ASTM D256 0 ASTM D5420 50.0 ASTM D2240 ASTM D648 231 ASTM D648 231 ASTM D635 ASTM D 1929	<i>Specific Gravity</i> <i>Tensile Strength, 2.0 in/min</i> <i>Accelerated Weathering / Light Exposure</i> <i>Flexural Modulus, tangent</i> <i>Izod Impact-Notched at 23 °C</i> <i>Gardner Impact</i> <i>Shore "D" Hardness</i> <i>Heat Deflection Temperature At 66 psi</i> <i>Heat Deflection Temperature At 264 psi</i> <i>Fire — Rate of Burning</i> <i>Fire — Ignition Temperature of Plastics</i> <i>Fire — Self Extinguishing — Spontaneous Ignition</i> <i>Fire — Self Extinguishing — Flash Ignition</i>			1.06 23/23 °C 3800 (27) psi (MPa) Complies with ±10% 290000 (2001) psi (MPa) (38) ft-lb/in (J/m) (5.6) in-lb (J) 71 231 °F (111°C) 144 °F / (63°C) 144 °F / (63°C) C-2 800°F 750 °F
UL 790 — TGFU R38623	Testing Requirements for Roofing Components			Class A
UL 94 FBC TAS 110-2000	<i>Any Class A, B or C roof system with <u>Non-Combustible Surfacing</u></i> <i>Fire — Resin Characteristics</i> <i>Fire — Resin Characteristics Horizontal Burn</i>			HB — Horizontal Burn Pass
Versadjust™ Pedestals				
Bison Product	Category	Test	Description	Bison Results
Versadjust™	Load: Axial Compression	ICC-ES AC300-2010	Uniform Load	Maximum Load 1250 lbs FoS:3
Versadjust™	Tab Shear	Shear Load	Shear Load Strength of Tabs	139 lbs average load. The tabs yielded and deformed but did not break or fracture
Versadjust™	Fire - Rate of Burning	ASTM D635	Determine the rate of burn in a horizontal position for the material used to manufacture the Versadjust™ Pedestal	Result C-2 Material complies with FBC (HVHZ) 2612.2 prescriptive requirements
Versadjust™	Fire - Determining Ignition Temperature of Plastics	ASTM D 1929	Determine the ignition property for the material used to manufacture the Versadjust™ Pedestal Material complies with FBC (HVHZ) 2612.2 prescriptive requirements	Flash Ignition Temperature (FIT) is 750 ° F Spontaneous Ignition Temperature (SIT) for the pedestal products is 800° F which meets or exceed IBC 2606.4: Self-Ignition Temperature of 650°F or greater.
Level.it™ Pedestals				
Bison Product	Category	Test	Description	Bison Results
Level.it™	Load: Axial Compression	ICC-ES AC300-2010	Uniform Load	Maximum Load 750 lbs FoS:3
Level.it™	Tab Shear	Shear Load	Shear Load Strength of Tabs	157 lbs average load. The tabs yielded and deformed but did not break or fracture
Level.it™ & Stepstone Concrete Pavers	Los Angeles Research Report	System	Los Angeles Building Code Research Report	LARR #25754

This disclosure is intended to provide additional information with regard to testing in relation to the Bison Pedestal Paver System, and is not intended as a guarantee or warranty of any kind, including but not limited to warranties of merchantability or fitness for a particular purpose. None of the information in this release is intended to substitute for the engineer's, specifier's, architect's, builder's, contractor's or owner's own analysis, investigation, and due diligence regarding the appropriate choice, application, installation and construction of a Bison Pedestal Paver System in any particular location or application, which is not the responsibility of Bison.



KAYU[®]-Batu[™] is a Red Balau hardwood species. It is as versatile as it is uniquely beautiful; darker reddish-brown in color and skillfully selected; the result of over 30 years of extensive worldwide importing of hardwoods for the U.S. and Canadian markets.

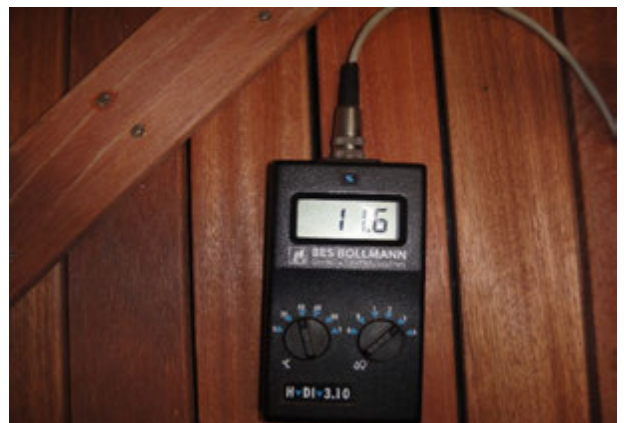
100% Natural and 100% Organic

Aside from **KAYU[®]-Batu[™]** being one of homeowners' favorite species for its natural warm beauty and long-lasting durability; Its dense cell structure serves as a natural deterrent to decay, insects and mold. Reliable for longevity, durability and low-maintenance.

A proven performer for decades in the most demanding applications with a class A Flame Spread Rating (same as concrete and steel). 100% clear grade, kiln dried for consistency, a 25 year limited warranty and always carefully inspected by Kayu exclusive graders.

KAYU[®]-Batu[™] Hardwood Decking

- ✓ Carefully selected Red Balau exotic hardwood species; as versatile as it is uniquely beautiful with a darker reddish- brown in color.
- ✓ 100% Lacey Act and SVLK compliant,
- ✓ 25 Year Limited Warranty.
- ✓ 100% clear grade; always inspected by KAYU exclusive graders.
- ✓ 100% natural and 100% organic, with no preservatives or additives.
- ✓ Kiln dried for consistent application.
- ✓ Average density of 60 Lbs/Ft3 / 960 kg/M3. Almost 2x denser than Cedar.
- ✓ Excellent value compared to similar hardwoods and composites.
- ✓ Wood grain that naturally saturates stain and oil with superior ease and an expert finish.
- ✓ Reliable for strength, longevity and durability.
- ✓ Low and easy maintenance; allow to weather to silver patina color or clean, wash & oil to bring back the decks natural beauty and warmth.
- ✓ Naturally resistant to decay, insects and mold, even in extreme environments.
- ✓ Class A Flame Spread Rating (same as concrete and steel). Excellent choice for homes and buildings in High Fire Severity Zones.



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| ✓ FENCING | ✓ SOFFITS & FASCIA | ✓ ROUGH SAWN LUMBER |

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Disclaimer:

KAYU® hardwood decking products are carefully selected and inspected to ensure the finest quality. However, all natural wood is subject to expansion and contraction as the moisture in the environment surrounding the wood changes. Shrinkage, expansion, checking and other movement are normal occurrences in all hardwood decking. Natural wood products are subject to variances in color, grain, density and performance.

CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION
OFFICE OF THE STATE FIRE MARSHAL
FIRE ENGINEERING - BUILDING MATERIALS LISTING PROGRAM



LISTING SERVICE

LISTING No. 8110-2069:0001 Page 1 of 1

CATEGORY: 8110 -- DECKING FOR WILDLAND URBAN INTERFACE (W.U.I.)

LISTEE: KAYU INTERNATIONAL INC. 11117 SW Greenburg Rd., Tigard, OR 97223
Contact: Natalie Smith (503) 557-7296 Fax (503) 557-7262
Email: Natalie@kayu.com

DESIGN: KAYU® Batu (Red Balau) solid hardwood board, reddish brown color, covers products
*nominal 1" and thicker x nominal 4" and wider, nominal density of 55.8 lbs/cubic feet.
Refer to the manufacturer's installation instructions and product data sheets.

RATING: Class A Flame Spread.

INSTALLATION: In accordance with listee's printed installation instructions, applicable codes and ordinances
and in a manner acceptable to the authority having jurisdiction.

MARKING: Listee name, Model number, rating and SFM label.

APPROVAL: Listed as decking material for use in the Wildland Urban Interface areas.

NOTE: Test Protocol 12-7A-4A

*Rev. 11-28-12 gt



This listing is based upon technical data submitted by the applicant. CSFM Fire Engineering staff has reviewed the test results and/or other data but does not make an independent verification of any claims. This listing is not an endorsement or recommendation of the item listed. This listing should not be used to verify correct operational requirements or installation criteria. Refer to listee's data sheet, installation instructions and/or other

Date Issued: **July 01, 2018**

Listing Expires **June 30, 2019**


Authorized By: **DAVID CASTILLO**, Program Coordinator
Fire Engineering Division

IPE OUTLET

J Gibson McIlvain Company · Est 1798

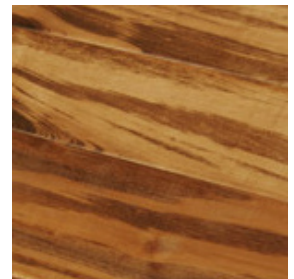
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Tigerwood: An Ipe Alternative

LAST UPDATED ON  JANUARY 15, 2016 BY J GIBSON MCILVAIN

What makes Goncalo Alves wood an alternative to Ipe?

Because Ipe is the premier decking species, hands down, all other quality decking choices can be considered Ipe alternatives, because if money were no object, we'd recommend Ipe to everyone. Since affordability is often a concern, though, many other tropical hardwoods are excellent choices. Tigerwood may be one of the few that we would understand even our least financially confined customers choosing over Ipe, due to its distinctive appearance. True to its name, Tigerwood has a brownish orange base color with dark stripes, similar to that of a tiger. The orange hue darkens over time to a deeper reddish brown. Even still, this eye-catching species has a lot more to offer than looks.



Tigerwood

Tigerwood, or the Goncalo Alves tree, grows in South American nations such as Brazil, Guatemala, and Peru, as well as in African nations such as Nigeria, the Democratic Republic of Congo, and Sierra Leone. Plantation-grown options also exist, making it a highly sustainable, or green, lumber species, despite its troubled history. The overharvesting that

once led to African deforestation has given way to more responsible harvesting in South America. In addition, over-logging of the African variety is made difficult by export restrictions; of course, such restrictions also ensure that Tigerwood remains a higher-end species. The Tigerwood tree not only is harvested for its excellent lumber, but it also produces abundant nuts that are similar in flavor to hazelnuts; uses include being ground into flour or used as cooking oil.

Because Tigerwood dries well, it is quite stable in most climates. However, kiln-drying is necessary to achieve optimum stability. This species is highly water and insect resistant, making it a long-time favorite for railroad ties and bridge pilings. Of course, the visual appeal makes it also a favorite for furniture and cabinetry as well as for hardwood veneers.

Increasingly popular for both interior flooring and decking applications, Tigerwood's unique appearance is a challenge for those hoping to attain a consistent appearance but a major plus for those looking for a distinctive look. Its smooth texture feels great on bare feet but can lead to slippage issues.

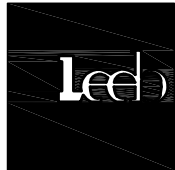
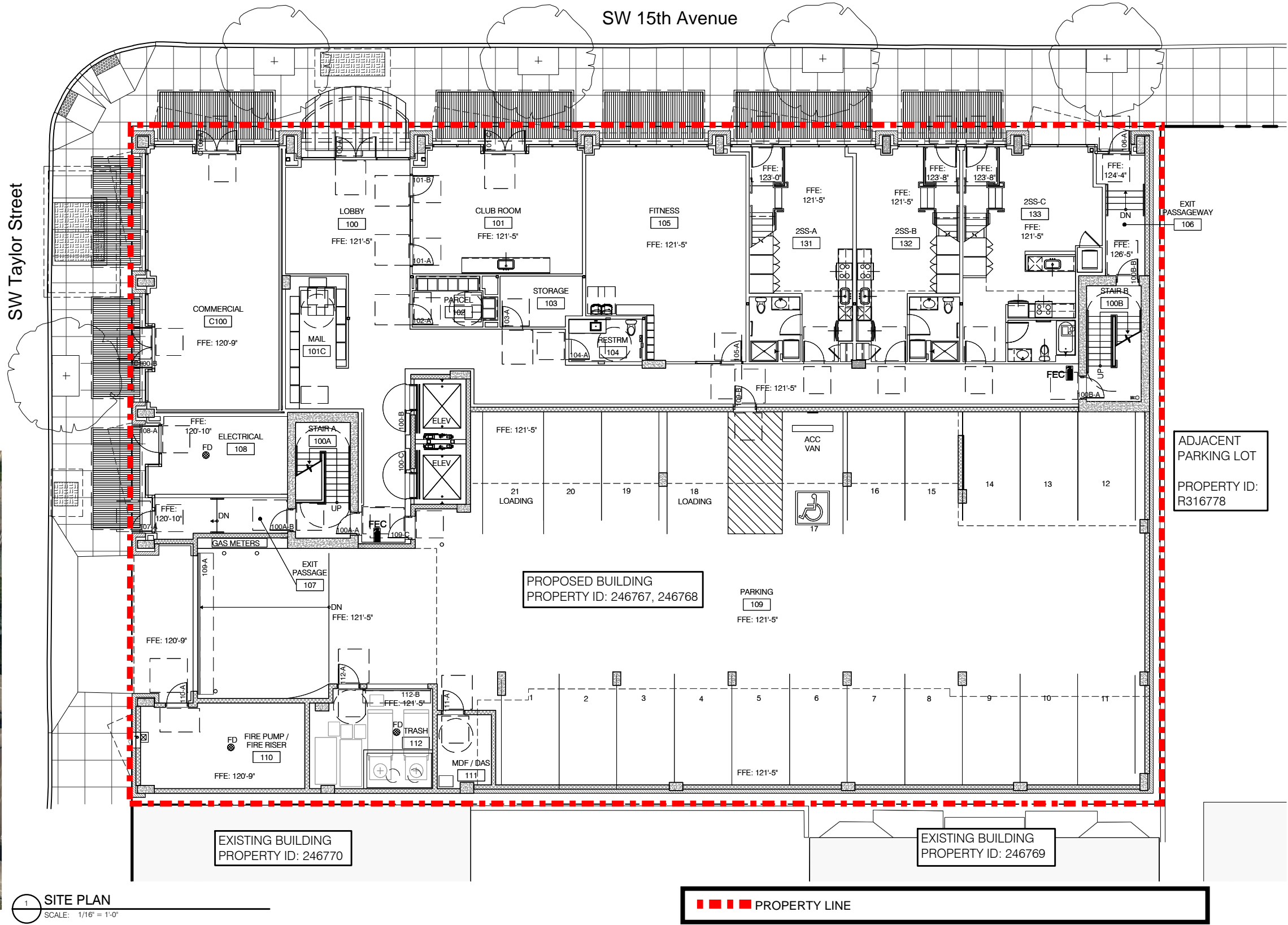
Sometimes people confuse Tigerwood trees or lumber for Zebrawood. Native to Brazil, Zebrawood has a darker heartwood that appears dark brown or black. The sustainability issues of Zebrawood are similar to older issues related to sustainability with Tigerwood. J. Gibson McIlvain fastidiously checks out all our partner mills and ensures that an untainted supply chain is in place. Our quality control process is also second-to-none.

Since we ensure both environmentally and socially responsible practices and the highest quality lumber available, we offer our customers a unique opportunity. With a wide variety of hardwoods, softwoods, hardwood plywood, and custom millwork available, we provide an additional opportunity for one-stop shopping that helps you save on shipping and valuable time and run-around.

IPE ALTERNATIVES

While no wood species will have exactly the same set of characteristics that makes Ipe such an ideal wood, certain species may offer comparable strengths, making them possible Ipe-substitutes depending on your particular project and environment. Learn about each Ipe alternative below:

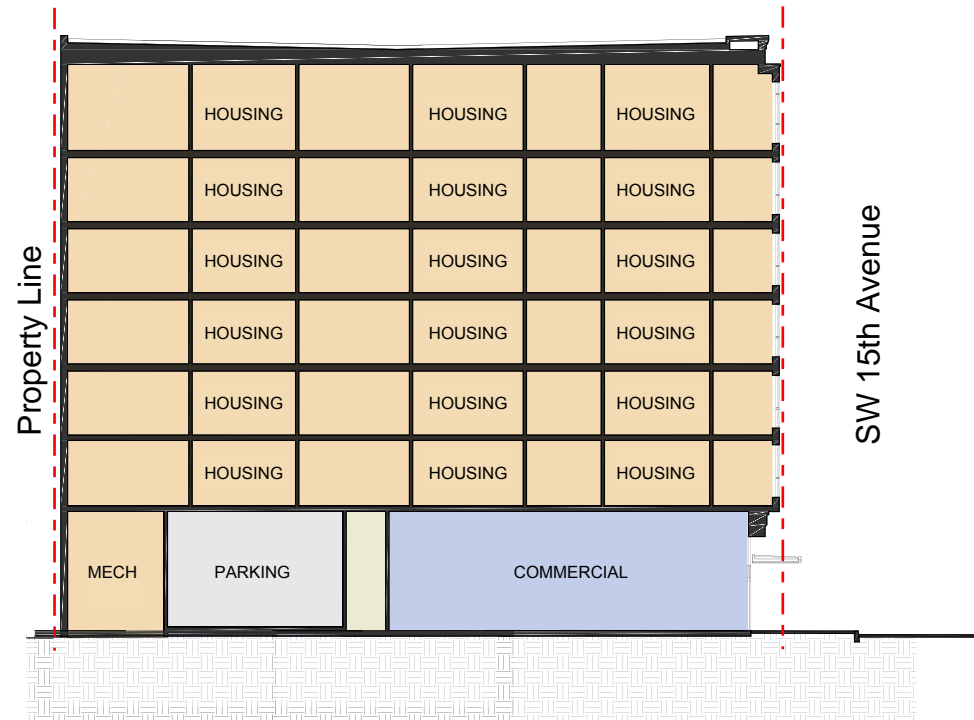
Site Aerial Photo (Existing)



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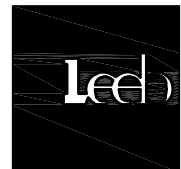
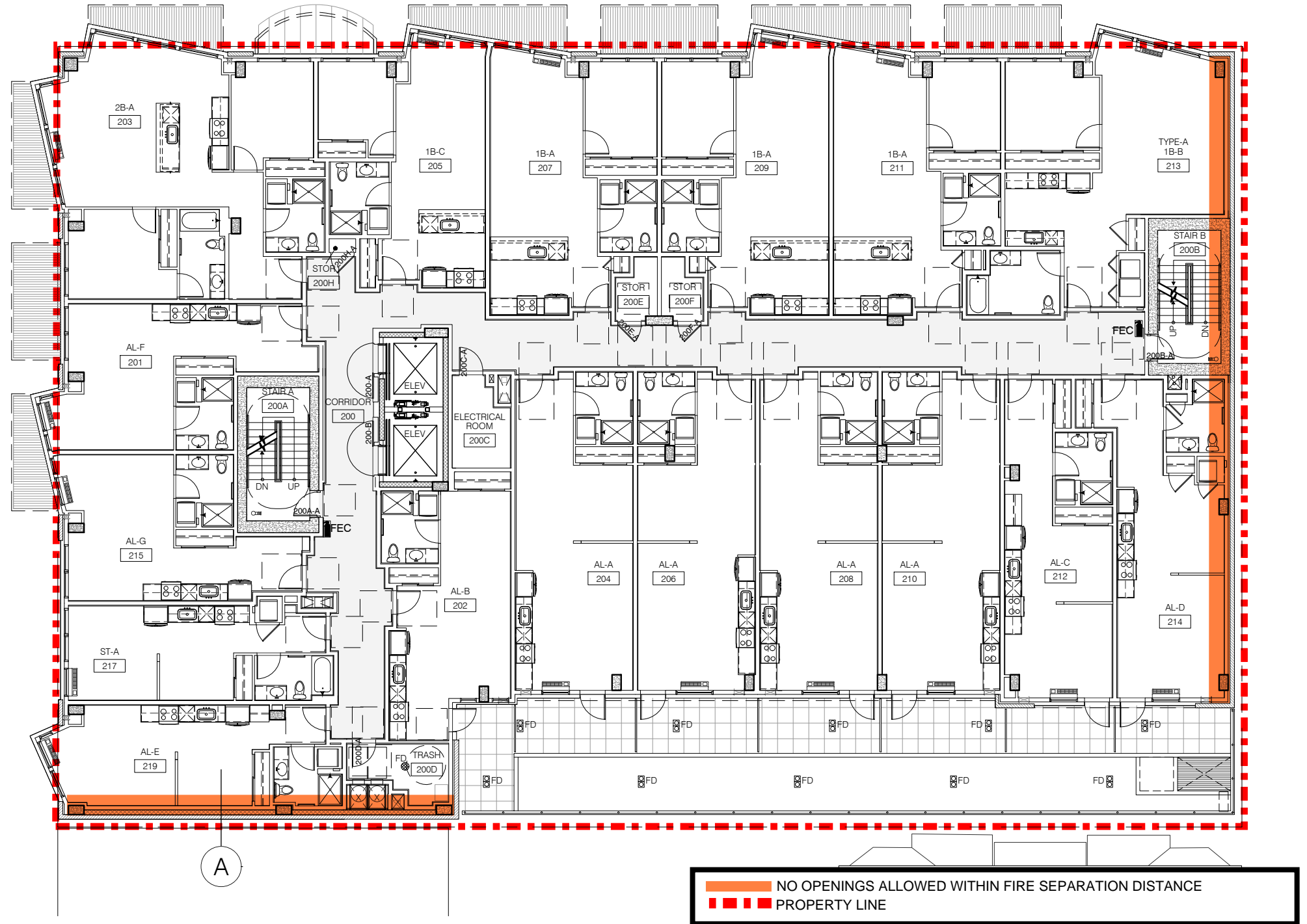
Exhibit 1
Scale: 1/16" = 1'-0"
Date: 04 Dec 2019
By: JW / CTK



A SECTION

0' 10' 20'

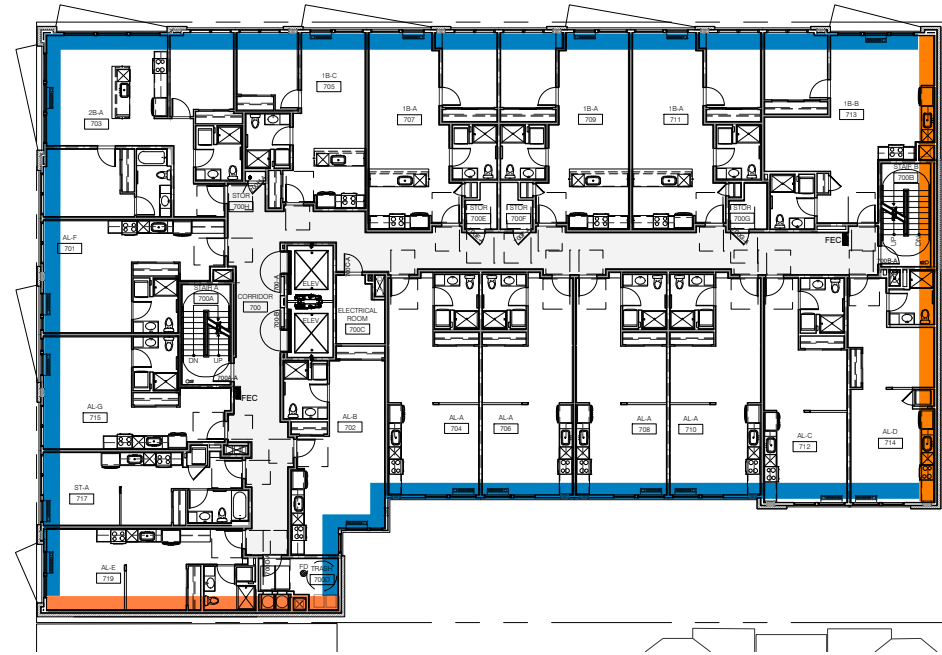
1 LEVEL 2 PLAN
SCALE: 1/16" = 1'-0"



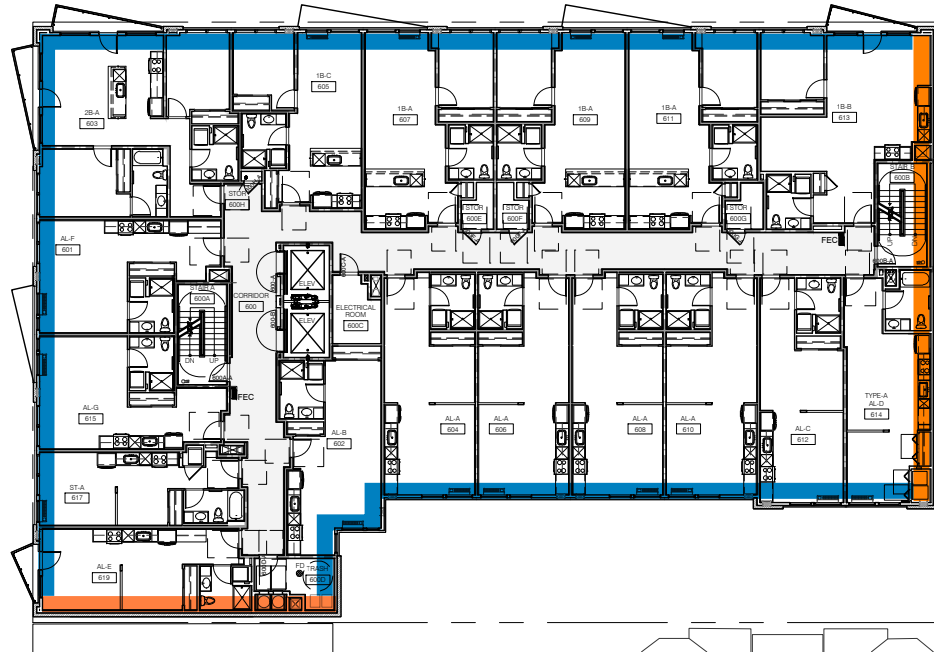
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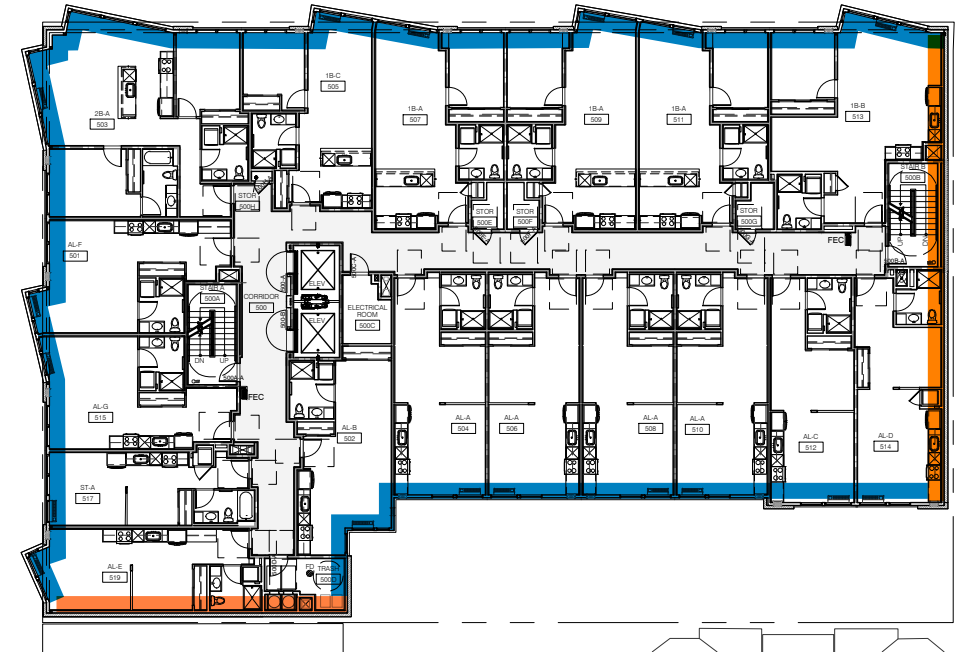
Exhibit 2
Scale: 1/16" = 1'-0"
Date: 04 Dec 2019
By: JW / CTK



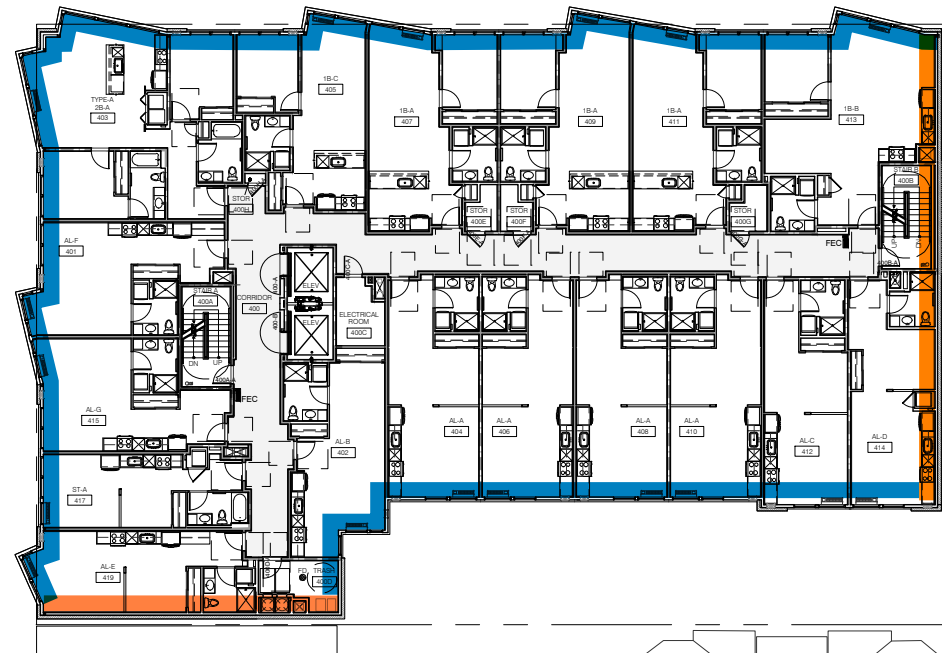
LEVEL 7
 TOTAL L.F. OF EXTERIOR WALL: 449'-10"
 TOTAL AREA OF OPERABLE WINDOWS: 410 sf
 OPERABLE WINDOW AREA PER 50 L.F. OF WALL: 45.6 sf



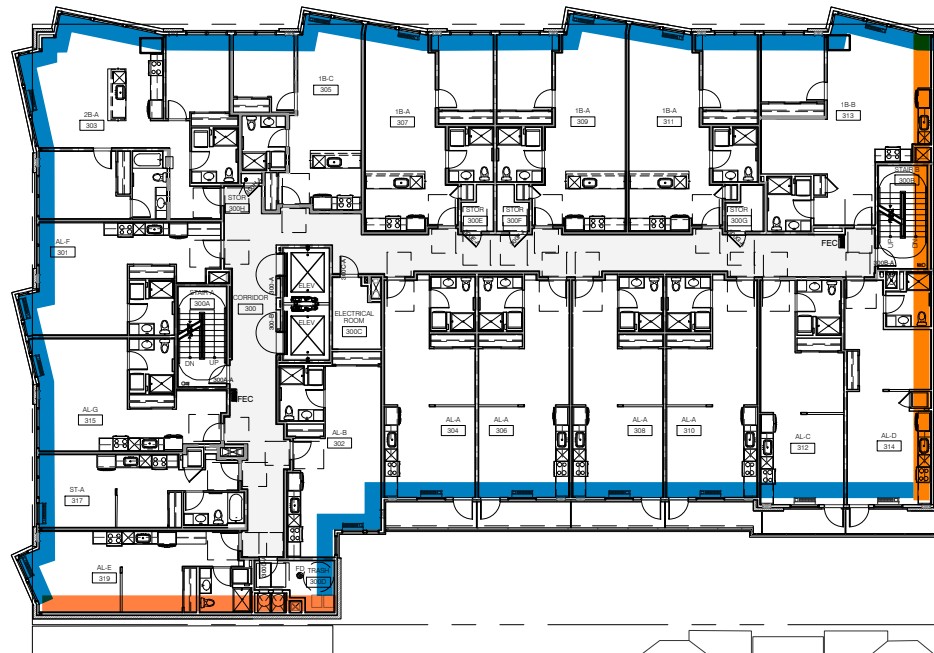
LEVEL 6
 TOTAL L.F. OF EXTERIOR WALL: 449'-10"
 TOTAL AREA OF OPERABLE WINDOWS: 479 sf
 OPERABLE WINDOW AREA PER 50 L.F. OF WALL: 53.3 sf



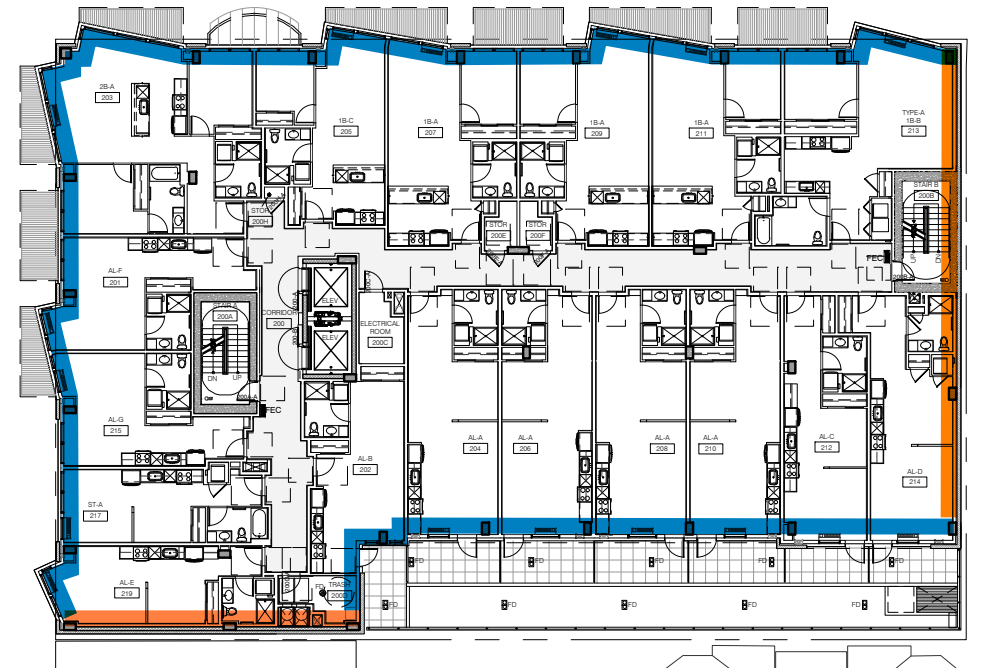
LEVEL 5
 TOTAL L.F. OF EXTERIOR WALL: 518'-6"
 TOTAL AREA OF OPERABLE WINDOWS: 438 sf
 OPERABLE WINDOW AREA PER 50 L.F. OF WALL: 42.27 sf



LEVEL 4
 TOTAL L.F. OF EXTERIOR WALL: 518'-6"
 TOTAL AREA OF OPERABLE WINDOWS: 438 sf
 OPERABLE WINDOW AREA PER 50 L.F. OF WALL: 42.27 sf

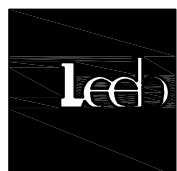


LEVEL 3
 TOTAL L.F. OF EXTERIOR WALL: 518'-6"
 TOTAL AREA OF OPERABLE WINDOWS: 475 sf
 OPERABLE WINDOW AREA PER 50 L.F. OF WALL: 45.8 sf



LEVEL 2
 TOTAL L.F. OF EXTERIOR WALL: 519'-4"
 TOTAL AREA OF OPERABLE WINDOWS: 552 sf
 OPERABLE WINDOW AREA PER 50 L.F. OF WALL: 53.2 sf

NO OPENINGS ALLOWED WITHIN FIRE SEPARATION DISTANCE
 WALL AREAS WITH OPERABLE WINDOWS



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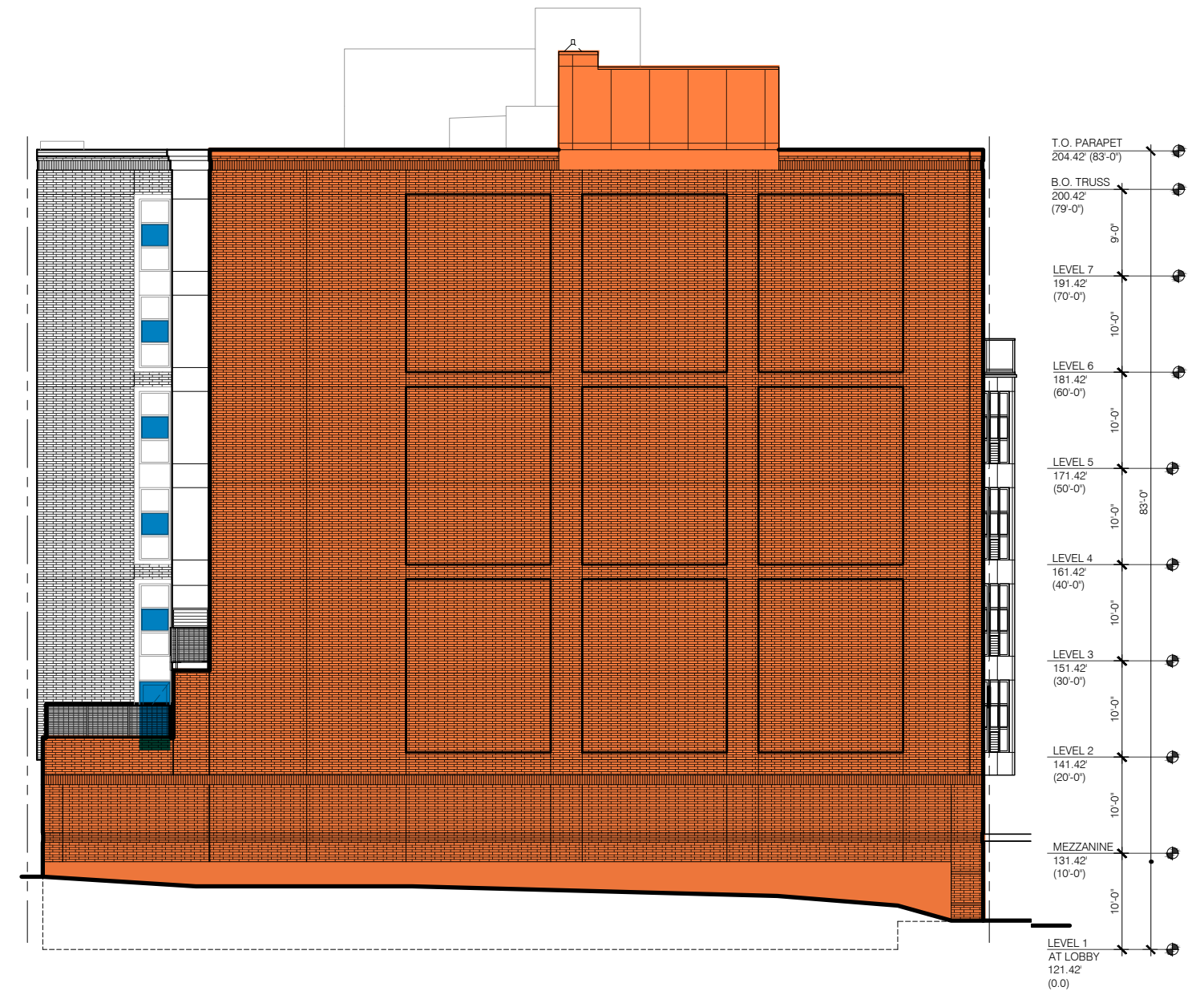
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Exhibit 3
 Scale: 1/16" = 1'-0"
 Date: 04 Dec 2019
 By: JW / CTK



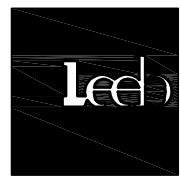
NO OPENINGS ALLOWED WITHIN FIRE SEPARATION DISTANCE
OPERABLE WINDOWS

1 NORTH ELEVATION
SCALE: 1/16" = 1'-0"



NO OPENINGS ALLOWED WITHIN FIRE SEPARATION DISTANCE
OPERABLE WINDOWS

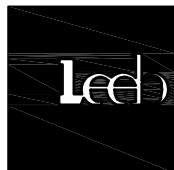
2 SOUTH ELEVATION
SCALE: 1/16" = 1'-0"



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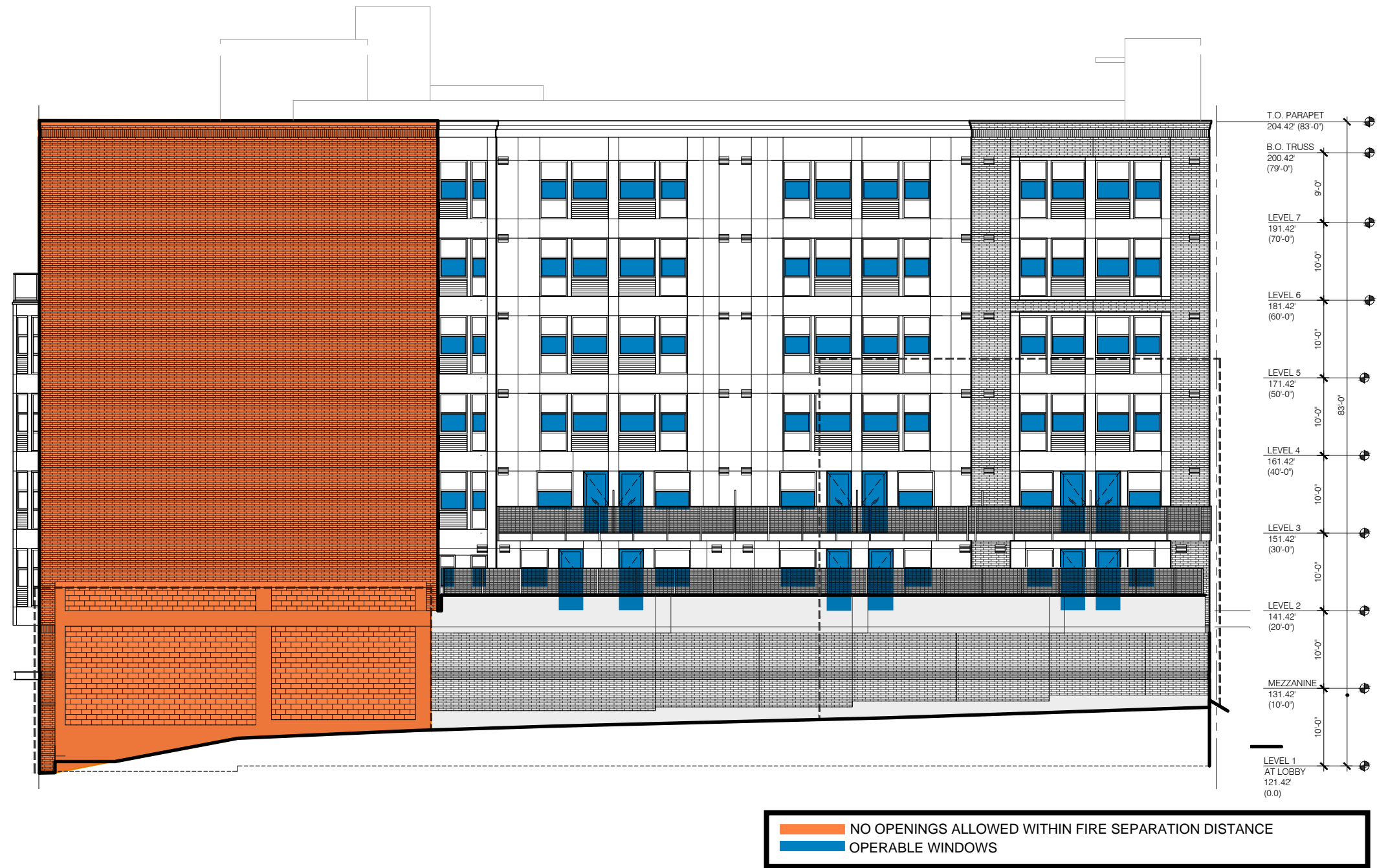
Exhibit 4
Scale: 1/16" = 1'-0"
Date: 04 Dec 2019
By: JW / CTK



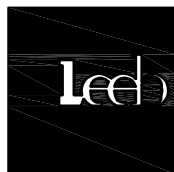
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Exhibit 5
Scale: 1/16" = 1'-0"
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1 WEST ELEVATION
SCALE: 1/16" = 1'-0"



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Exhibit 6
Scale: 1/16" = 1'-0"
Date: 04 Dec 2019
By: JW / CTK