

Development Services

From Concept to Construction

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APPEAL SUMMARY

Status: Decision Rendered

Appeal ID: 14914	Project Address: 1177 SW Market St
Hearing Date: 4/12/17	Appellant Name: Michael Barrett
Case No.: B-009	Appellant Phone: 503-445-7895
Appeal Type: Building	Plans Examiner/Inspector: Kathy Aulwes
Project Type: commercial	Stories: 14 Occupancy: R-2 Construction Type: 1-A
Building/Business Name:	Fire Sprinklers: Yes - Fully Sprinklered
Appeal Involves: Erection of a new structure	LUR or Permit Application No.: 16-173209-CO
Plan Submitted Option: pdf [File 1] [File 2] [File 3] Proposed use: Multifamily Apartments	

APPEAL INFORMATION SHEET

Appeal item 1

Code Section	2014 OSSC 716.2, 716.4 and Table 716.5
Requires	Fire rated glazing is required at openings under Section 716 and is limited in size per Table 716.5
Proposed Design	<p>See Exhibit 01 -Fire Sprinkler @ Glazing for more information:</p> <p>The project proposes using a water curtain system at non-rated glazing assemblies to provide the required protection at openings within a 1 hour smoke barrier.</p> <p>An amenity club room is located directly off the project's fire service access elevator lobby. In lieu of fire rated glazing and rated assemblies, the proposed design incorporates a non-rated storefront system and glazing to provide a visual connection between the lobby and the shared amenity space. A rated hollow metal frame and door is provided to meet the smoke seal requirements of an FSAE lobby, but a non-rated glazed transom and non-rated glazing with the door is proposed.</p> <p>A fire suppression system on both sides of the assembly is proposed to fully cover these openings as an equivalent alternate method under OSSC 716.4, exception 4 is proposed.</p>
Reason for alternative	<p>A strong visual connection is desired between the shared common space and the elevator lobby to help capture views and daylight within given the height of the tower and to allow better security and monitoring between the two spaces.</p> <p>Using water curtains is a typical equivalent approach to non-fire rated glazing as established within appeals 12062 & 14323. This appeal is submitted as confirmation for this equivalent approach project due to previous appeals 13451 & 13569.</p> <p>Smoke protection for the lobby and occupants are provided by smoke seals at the door and air gasketing a the glazing pockets similar to use of storefront as an exterior window system, helping</p>

to mitigate the concern of smoke migration. In the case of a fire, the all spaces are protected by a fire sprinkler and a second exit is provided from the common amenity room to the adjacent roof deck and to the second stair exit.

Our understanding of the fire service elevator access lobby is to provide a large staging area one or two floors below the area of emergency event of fire attack. As the request for equivalence of a water curtain is for the top floor of the tower only, we anticipate the necessitated of a staging area on this floor is less critical.

Appeal item 2

Code Section 2014 OSSC 1812

Requires

Section 1812.1 Scope. The provisions of this section apply to new Group R-2 and R-3 occupancies constructed in Baker, Clackamas, Hood River, Multnomah, Polk, Washington and Yamhill Counties for which initial building permits are issued on or after April 1, 2011

Section 1812.3.2 – Subfloor Preparation. A layer of gas permeable material shall be placed under all concrete slabs and other floor systems that directly contact the ground and are within the walls of the living spaces of the building, to facilitate future installation of a sub-slab depressurization system, if needed.

Section 1812.3.3 – Soil-gas-retarder. A minimum 6-mil polyethylene or equivalent flexible sheeting material shall be placed on top of the gas-permeable layer prior to casting the slab or placing the floor assembly to serve as a soil-gas-retarder by bridging any cracks that develop in the slab or floor assembly and to prevent concrete from entering the void spaces in the aggregate base material.

Section 1812.3.6 – Passive subslab depressurization system (basement or slab-on-grade). In basement or slab-on-grade buildings, subslab soil exhaust system ducts complying with Section 1812.3.7 shall be installed during construction...

Section 1812.3.7 – Subslab soil exhaust system ducts (SSED). SSED's shall be provided in accordance with this section and shall run continuous from below the soil-gas-retarder to the termination point described in section 18.12.3.7.5...

Proposed Design

See Exhibit 02 - Radon Control Methods for more information:

The proposed building is a quarterblock 14 story highrise, with parking, tenant amenity spaces and building support spaces on the ground floor with a mix of S, B and R-2 accessory occupancies. No dwelling units are located on the ground floor, with all R-2 accessory occupancy designated for circulation space.

All spaces on the ground level are mechanically ventilated and exhausted per IMC code requirements, adopting a similar approach to appeals 13547 & 10325.

Reason for alternative An active mechanical ventilation system on the ground floor exhausts potential radon gases prior to reaching residential spaces on the upper floors of the tower, particularly given the limited R-2 accessory use and lack of grade level living units. We believe that this approach, especially as previously adopted by other similar projects, meets the intent of Radon control methods.

Appeal item 3

Code Section 2014 OSSC 1025.1

Requires	General. Approved luminous egress path markings delineating the exit path shall be provided in high-rise buildings of Group A, B, E, I, M and R-1 occupancies in accordance with Sections 1024.1 through 1024.5
Proposed Design	<p>See Exhibit 03 -Luminous Markings for more information:</p> <p>The project proposes to omit luminous egress path markings, instead relying on other life safety requirements for high-rise apartment buildings including emergency power for lighting and stairway pressurization to provide sufficient protection for building occupants within a R-2 occupancy building.</p>
Reason for alternative	<p>Luminous egress path markings are intended to provide an extra layer of protection for individuals not necessarily familiar with a building egress paths. The proposed apartment building project is exclusive tenant use with a primary Group designation of R-2, typically not triggering the requirement for luminous egress path markings.</p> <p>In a typical configuration of multifamily housing, this project proposes common spaces - both an amenity club room and a private roof terrace at the top floor of the tower. These spaces are for tenant use only and accessible only under fob entry systems, creating a reasonable expectation that building occupants will be familiar with building egress paths.</p> <p>In line with City guidance and due to the size and nature of shared amenity spaces, these areas are listed as Group A occupancy within our code analysis in lieu of R-2 Accessory. However, as non-public spaces intended for exclusive use by R-2 occupants, these spaces fall within a middle ground between A and R-2 occupancy. We argue that this middle ground does not qualify for the code intent of luminous egress path markings, aimed at providing additional egress notification for occupants assumed to be unfamiliar with the building</p> <p>The project meets all other requirements of a multifamily high rise, including emergency back up power, back up lighting within egress paths and stair pressurization. Luminous egress path markings would unquestionably not be required the project's common spaces were listed as R-2 accessory or omitted from the design.</p>

APPEAL DECISION

1. Sprinkler protection at fixed glazing within one hour rated fire partition in lieu of fire rated glazing: Granted provided windows are non-operable and sprinklers are installed a minimum of 4 inches and a maximum of 24 inches from the opening(s) spaced at 6 feet on center. Sprinklers are to be installed on both sides of the glazing and shall be capable of wetting the entire surface. A separate permit from the Fire Marshal's Office is required. Appellant must be offering Standard NFPA 13 sprinkler protection.

2. Omission of radon control measures in mixed use building: Granted as proposed and provided continuous mechanical ventilation is installed in all first floor spaces.

3. Omission of luminous markings in R2 assembly spaces used primarily by residents and guests: Denied. Proposal does not provide equivalent Life Safety protection.

For the item granted, 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 180 calendar days of the date this decision is published. For information on the appeals process and costs,

including forms, appeal fee, payment methods and fee waivers, go to www.portlandoregon.gov/bds/appealsinfo, call (503) 823-7300 or come in to the Development Services Center.

EX 1 - FIRE SPRINKLER @ GLAZING
1177 SW MARKET ST. - 4.5.17

FIRE RATING ACHIEVED THROUGH FIRE CURTAIN

1 HOUR RATED FIRE
PARTITION

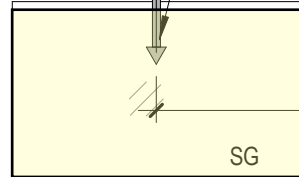
23

EQ.

EQ.

EQ.

EQ.



SG

7' - 6"
MIN 6'-0", MAX 8'-0"

SG

SG

EQ

EQ

SG

SG

SG

SG

2' - 1"

6' - 0"

10' - 0"

11' - 0"

1' - 11"

3' - 4"

6"

7' - 2"

CENTER IN WALL OPENING

NON RATED STOREFRONT
SYSTEM PROTECTED BY
WATER CURTAIN

NON-RATED GLAZING WITHIN
RATED WITHIN HOLLOW
METAL GLAZING PROTECTED
BY WATER CURTAIN

1404

EX 1 - FIRE SPRINKLER @ GLAZING
1177 SW MARKET ST. - 4.5.17

NORTH STAIR	
STAIR OCCUPANT LOAD:	98
REQUIRED WIDTH:	$98 * 0.2 = 19.6"$
PROVIDED WIDTH:	44"
PROVIDED STAIR CAPACITY:	220
REQUIRED DOOR WIDTH:	$98 * 0.15 = 14.7"$
PROVIDED DOOR WIDTH:	36"
PROVIDED DOOR CAPACITY:	240

LOBBY AND CORE	
AREA:	1010 SF
OT:	R-2
OLF:	200

EAST STAIR	
STAIR OCCUPANT LOAD:	48
REQUIRED WIDTH:	$48 * 0.2 = 9.6"$
PROVIDED WIDTH:	44"
PROVIDED STAIR CAPACITY:	220
REQUIRED DOOR WIDTH:	$48 * 0.15 = 7.2"$
PROVIDED DOOR WIDTH:	36"
PROVIDED DOOR CAPACITY:	240

SHAFT	
AREA:	16 SF
OT:	R-2 ACC
OLF:	300

SUBDUCT	
AREA:	8 SF
OT:	R-2 ACC
OLF:	300

SUBDUCT	
AREA:	8 SF
OT:	R-2 ACC
OLF:	300

EX 2 - RADON CONTRL METHODS
1177 SW MARKET ST. - 4.5.17

FIRE PUMP
AREA: 131 SF
OT: S-2
OLF: 300

LOCATION OF BELOW
GRADE FIRE TANK FOR
SECONDARY SPRINKLER
WATER SUPPLY

SEE MEZZANINE PLAN
FOR CONTINUATION
OF EXIT PASSAGEWAY

DOOR OCCUPANT LOAD: 111
REQUIRED DOOR WIDTH: $111 * 0.15 = 16.65"$
PROVIDED DOOR WIDTH: 36"
PROVIDED DOOR CAPACITY: 240

LEVEL 14 OCCUPANT LOAD AT
EXIT PASSAGEWAY ON
MEZZANINE LEVEL

2 HR RATED CEILING AT EXIT
PASSAGEWAY ABOVE

DOOR OCCUPANT LOAD: 45
REQUIRED DOOR WIDTH: $45 * 0.15 = 6.75"$
PROVIDED DOOR WIDTH: 72"
PROVIDED DOOR CAPACITY: 480

TRASH
AREA: 230 SF
OT: S-1
OLF: 300

ELEV. CONTROL RM.
AREA: 247 SF
OT: S-2
OLF: 300

PARKING
AREA: 4237 SF
OT: S-2
OLF: 200

2 HR RATED CEILING
AT STAIRWAY ABOVE

RESTROOM
AREA: 69 SF
OT: B
OLF: 100

FIRE COMMAND
AREA: 218 SF
OT: S-2
OLF: 1300

CORRIDOR
AREA: 721 SF
OT: R-2
OLF: 200

LOBBY
AREA: 638 SF
OT: B
OLF: 15

ELECTRICAL
AREA: 282 SF
OT: S-2
OLF: 300

FITNESS
AREA: 639 SF
OT: B
OLF: 50

LEASING
AREA: 126 SF
OT: B
OLF: 100

MAIL
AREA: 249 SF
OT: B
OLF: 100

SHAFT
AREA: 8 SF
OT: R-2 ACC
OLF: 200

STAIR 2
193 SF
LEVEL 14 DICTATES
HIGHEST OCCUPANT
LOAD AT 48

2 HR RATED CEILING AT
STAIRWAY ABOVE

EMERGENCY
GENERATOR AND
FUEL TANK

GENERATOR
AREA: 306 SF
OT: S-1
OLF: 300

WORK ROOM
AREA: 116 SF
OT: S-2
OLF: 300

MDF
AREA: 40 SF
OT: S-2
OLF: 300

DOG WASH
AREA: 83 SF
OT: S-2
OLF: 300

WATER RISER
AREA: 127 SF
OT: S-2
OLF: 300

REMOTE FUELING LOCATION

DOOR OCCUPANT LOAD: 11
REQUIRED DOOR WIDTH: $11 * 0.15 = 1.65"$
PROVIDED DOOR WIDTH: 36"
PROVIDED DOOR CAPACITY: 240

DOOR OCCUPANT LOAD: 70
REQUIRED DOOR WIDTH: $70 * 0.15 = 10.5"$
PROVIDED DOOR WIDTH: 36"
PROVIDED DOOR CAPACITY: 240

0' 4' 12' 20'

GROUND FLOOR PLAN FLSS A101



GROUND FLOOR PLAN

NORTH STAIR	
STAIR OCCUPANT LOAD:	98
REQUIRED WIDTH:	$98 * 0.2 = 19.6"$
PROVIDED WIDTH:	44"
PROVIDED STAIR CAPACITY:	220
REQUIRED DOOR WIDTH:	$98 * 0.15 = 14.7"$
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LOBBY AND CORE	
AREA:	1010 SF
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OLF:	200

EAST STAIR	
STAIR OCCUPANT LOAD:	48
REQUIRED WIDTH:	$48 * 0.2 = 9.6"$
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PROVIDED STAIR CAPACITY:	220
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SHAFT	
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SUBDUCT	
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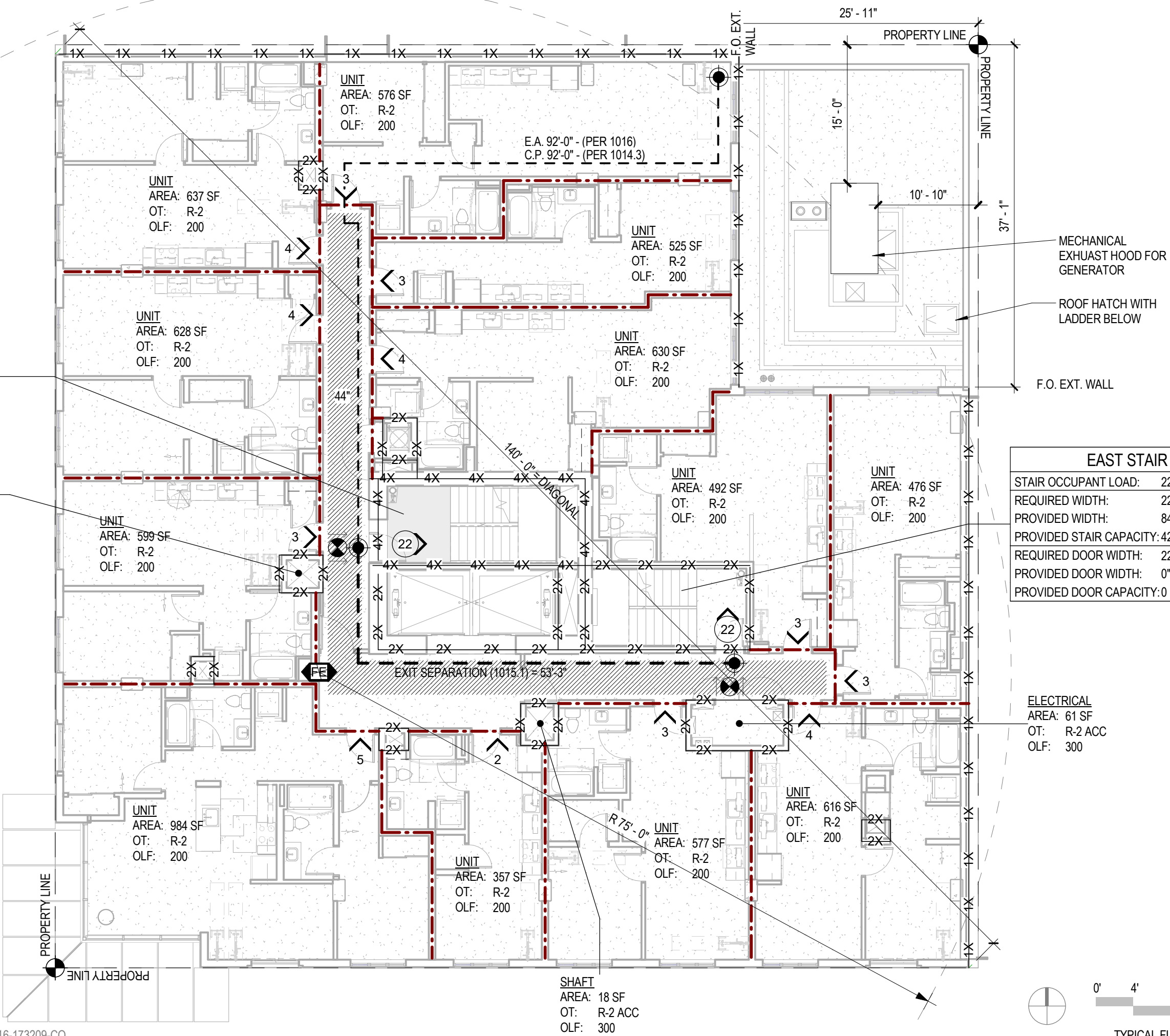
SUBDUCT	
AREA:	8 SF
OT:	R-2 ACC
OLF:	300

NORTH STAIR	
STAIR OCCUPANT LOAD:	22
REQUIRED WIDTH:	$22 \times 0.2 = 4.4"$
PROVIDED WIDTH:	44"
PROVIDED STAIR CAPACITY:	220
REQUIRED DOOR WIDTH:	$22 \times 0.15 = 3.3"$
PROVIDED DOOR WIDTH:	33.5"
PROVIDED DOOR CAPACITY:	223.333333

SHAFT
AREA: 19 SF
OT: R-2 ACC
OLF: 300

EAST STAIR	
STAIR OCCUPANT LOAD:	22
REQUIRED WIDTH:	$22 \times 0.2 = 4.4"$
PROVIDED WIDTH:	84"
PROVIDED STAIR CAPACITY:	420
REQUIRED DOOR WIDTH:	$22 \times 0.15 = 3.3"$
PROVIDED DOOR WIDTH:	0"
PROVIDED DOOR CAPACITY:	0

ELECTRICAL
AREA: 61 SF
OT: R-2 ACC
OLF: 300



EX 3 - LUMINOUS MARKINGS
1177 SW MARKET ST. - 4.5.17

FIRE PUMP
AREA: 131 SF
OT: S-2
OLF: 300

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