

HIGH-RISE PRESUBMITTAL CONFERENCE (2018 SBC)

Date: []



Seattle Department of
Construction & Inspections

PROJECT INFORMATION		APPLICANT INFORMATION	
Project Name: OneU		Contact Person: Sean Ludviksen	
Project Address: 1013 NE 45th Street		Contact Address: 101 Stewart Street, Ste 200, Seattle WA 98101	
Construction Application/Permit: # 6906292-PH		Contact Email: sludviksen@hewittseattle.com	
MUP Project: # 3037792-LU		Contact Phone: 206.696.5085	
Conference Attendees			
Name	Company	Phone	Email

PROVIDE BRIEF DESCRIPTION OF PROJECT. INCLUDE OVERALL SIZE, NUMBER OF STORIES CONSTRUCTION TYPE AND OCCUPANCIES:
 Construction of a 25 story mixed use residential high-rise building. The project will consist of 365 units, parking for 54 vehicles in 2 levels below grade, ground level commercial space, residential amenity terraces at L07-09, L16-18, and L25. Roof is unoccupied. The building will be Type 1A construction with the following occupancies: R-2, S-2, S-1, B, A-3, A-2.

The following section requires the applicant to demonstrate to the City that this project is in compliance with the high-rise building section, 403, of the 2018 Seattle Building Code. Be aware that Seattle has a significant number of amendments to the International Building Code – full text of each section is NOT reprinted here and can be found at: [http://www.seattle.gov/sdci/codes/codes-we-enforce-\(a-z\)/building-code#2018seattlebuildingcode/](http://www.seattle.gov/sdci/codes/codes-we-enforce-(a-z)/building-code#2018seattlebuildingcode/) You are required to comply with all of the Seattle amendments.

Note: The use of a code alternate or code modification request requires an additional form unless the desired Code Alternate is published in the Seattle Building or Fire Code. The form can be found at: <http://www.seattle.gov/sdci/permits/forms>

HIGH-RISE BUILDING CODE REQUIREMENTS - * DENOTES SEATTLE AMENDMENT IN SECTION

Section 403 Highrise Buildings	
403.1.1.1* Presubmittal Conference	<i>Note: At least 60 days prior to structural application-arrange a presubmittal conference; provide documentation /appropriate analyses and schematic drawings two weeks prior to conference; approved predesign meeting minutes are required prior to permit application and shall be inserted into plans as part of the permanent permit record</i>
403.1.1.2* Smoke Control Presubmittal Conference	<i>Note: At least 60 days prior to architectural application, arrange a second presubmittal conference to review the conceptual smoke control design (see SBC 909.1.1). Provide a draft 909 Concept Report two weeks prior to the smoke control presubmittal conference.</i>
403.2.3* Structural Integrity of enclosures.	Key Items: All fire service access elevators; all exit enclosures and elevator hoistway enclosures in risk category III or IV buildings; and all exit enclosures and elevator hoistways in buildings more than 420 feet in height shall comply with Sections 403.2.3.1 through 403.2.3.4.
	Proposal: Proposed project is occupancy category II and is less than 420 feet in height (grade plane to the average height of the highest roof surface (R01) other than rooftop structures complying with Section 1510) and is not required to meet the requirements of 403.2.3.
Conference discussion & decisions:	
403.3* Automatic sprinkler system	Key Items: Provide a sprinkler system in accordance with Section 903.3.1.1 and Seattle Fire Code (SFC) Section 914.3.1. (and as modified under Section 914.3.1.2 when applicable). Provide a secondary water supply where required by SFC Section 914.3.2. Describe proposed sprinkler system and secondary water supply. Fire pump rooms not directly accessible from the outside are not required to be accessible through an enclosed passageway from an interior exit stairway or exterior exit. See SFD Administrative Rule 09.03.20. High-rise building sprinkler systems shall be combination standpipe/sprinkler systems incorporating the following features: <ol style="list-style-type: none"> 1. Each floor sprinkler system shall be connected between standpipe risers. 2. Shut-off valves, water-flow devices and check valves (or pressure reducing valves) shall be provided on each floor at the sprinkler system connection to each standpipe. 3. Two four-way fire department connections serving the combination system shall be provided on separate streets well separated from each other. 4. When a mid-level fire pump is required to meet pressure requirements, two pumps with the same rating shall be installed. 5. Dry-pipe sprinkler systems serving parking garages may use a separate two-way fire department connection. The dry-pipe sprinkler system shall be supplied by the on-site water tank. 6. The standpipe risers in each required stair shall be a minimum pipe size of 6 inches.

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	<p>7. Two 2½-inch hose connections shall be provided on every floor level landing in every required stairway. If pressure reducing valves (PRV) are required, each hose connection shall be provided with its own PRV.</p> <p>8. The system shall be designed to provide a minimum flow of 300 gpm at a minimum pressure of 150 psi [maximum 205 psi at each standpipe connection] in addition to the flow and pressure requirements contained in NFPA 14.</p> <p>See attached “Seattle Requirements for High-Rise Secondary Water Supply”</p>
	<p>Proposal:</p> <p>A secondary water supply tank with capacity of 33,000 gallons of usable volume is included at and below level P02 slab. A dedicated fire pump room is located at Level P01 with a 2 hour fire-rated construction:</p> <ol style="list-style-type: none"> 1. Each floor sprinkler system shall be connected between standpipe risers. 2. Shut-off valves, water-flow devices and check valves (or pressure reducing valves) shall be provided on each floor at the sprinkler system connection to each standpipe. 3. Two four-way fire department connections serving the combination system shall be well separated from each other. Locations can be well spread apart (minimum 100’). Review location options in the meeting. Locate 10’ from doors, generator tailpipe, garage entrances. 4. At least one of the fire department connections shall be connected to the riser above a riser isolation valve. 5. Proposed tower is +/-265 feet high. A mid-level fire pump room is not provided; NFPA 14 flow and pressure to be confirmed by fire protection engineer. 6. The dry-pipe sprinkler system serving the garage and unheated spaces will be supplied by the on-site water tank. 7. The standpipe risers in each required stair shall be a minimum pipe size of 6 inches. 8. Two (2) 2½-inch hose connections shall be provided on every floor level landing in every required stairway. If pressure reducing valves (PRV) are required, each hose connection shall be provided with its own PRV. 9. The system shall be designed to provide a minimum flow of 300 gpm at a minimum pressure of 150 psi [maximum 205 psi at each standpipe connection] in addition to the flow and pressure requirements contained in NFPA 14. 10. Secondary water supply tank overflow protection shall include automatic shutoff valves meeting SFD requirements and an approved means to prevent tank from overflowing into the building. 11. Architectural plans shall be provided with sufficient detail to demonstrate useable volume. 12. Fire pump equipment will be co-located with domestic water equipment in the same room. Testing and maintenance access clearances for the fire pump equipment will be provided per NFPA 20.
<p>Conference discussion & decisions:</p>	
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<p>403.3.2* Water supply to</p>	<p>Key Items: In Type IV-A and Type IV-B buildings that are more than 120 feet in building height, required fire pumps shall be supplied by connections to not fewer</p>

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required fire pumps.	<p><i>than two water mains located in different streets.</i></p> <p><i>Exception: Two connections to the same main shall be permitted provided that the main is valved such that an interruption can be isolated so that the water supply will continue without interruption through not fewer than one of the connections.</i></p>
	Proposal:
Conference discussion & decisions:	
403.4.2 Fire alarm systems	<p>Key Items: <i>Fire alarm systems shall comply with Section 907.2.12. Describe proposed fire alarm system. Fire alarm interaction with smoke control system will be discussed at the smoke control presubmittal conference.</i></p>
	<p>Proposal:</p> <p>A life safety system shall be provided in strict compliance with the 2018 Seattle Fire Code Section 907.2.12. An addressable life safety system will be provided which will include:</p> <ol style="list-style-type: none"> 1. Automatic smoke detection system in accordance with Section 907.2.12.1. Area smoke detectors shall be located in each mechanical equipment, electrical, telephone equipment or similar room which is not provided with sprinkler protection. In each elevator machine room and in elevator lobbies. Duct smoke detection shall be installed in strict compliance with Section 907.3.1. 2. Manual fire alarm boxes in accordance with Section 907.4.2. Only one (1) manual station will be provided in the FCC as the building is fully sprinklered. 3. Automatic sprinkler system in accordance with Section 903.3.1. Water flow, pressure, hi-pressure, low-pressure and supervisory switches as required for the automatic sprinkler system shall be connected to the Life Safety System. 4. Fire department communication system in accordance with Section 907.2.13.2. City of Seattle requires DAS in all high-rise buildings. 5. Emergency voice/alarm communication system in accordance with Section 907.5.2.2. Must meet 520Hz Low Frequency Requirements. Emergency voice/alarm communication system shall be designed and installed in accordance with NFPA 72. The operation of any automatic fire detector, sprinkler water flow device or manual fire alarm box shall automatically sound and alert tone and activate visible alarms and followed by voice instructions giving directions for general evacuation. The system shall operate on a minimum of the alarming floor, the floor above and the two floors below. Speakers and visible devices shall be provided throughout the building by paging zones. At a minimum, paging zones shall be provided for each elevator group, exit stairway and floor. 6. Alarm notification appliances in accordance with Section 907.5.2.1. 75 dBA in all R-2 areas. Audible alarm notification appliances shall be provided and emit a distinctive sound that is not to be used for any purpose other than that of the fire alarm. The audible alarm notification appliances shall provide a sound pressure level of 5 decibels above the average ambient sound level or 5 decibels above the maximum sound level having a duration of at least 60 seconds, whichever is greater, in every occupiable space within the

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	<p>building.</p> <p>7. Visible alarm notification appliances in accordance with Section 907.5.2.3. Visible alarm notification appliances shall be provided in accordance with Section 907.5.2.3.1 through 907.5.2.3.3, and Administrative Rule 9.09.18, Visible Alarm Notification Devices, and any future revisions of this rule adopted.</p> <p>8. Monitoring in accordance with Section 907.6.5. The Life Safety system will be monitored by an approved supervising station in accordance with NFPA 72.</p> <p>a. To meet NFPA 72 Section 21.5, the team proposes that all FSE lobbies will be monitored by an addressable combo heat/smoke sensor that will be connected to a high temperature indicator light per level in the FCC.</p>
<p>Conference discussion & decisions:</p>	
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<p>403.4.4 Emergency voice/alarm communication systems</p>	<p>Key Items: <i>An emergency voice/alarm communication system shall be provided in accordance with SFC Section 907.5.2.2.</i></p>
	<p>Proposal: No exceptions taken to 403.4.4. A voice communication and alarm system will be provided as required by code. See 403.4.2 above (Item 5) for 907.5.2.2 requirements.</p>
<p>Conference discussion & decisions:</p>	
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<p>403.4.5 Emergency responder radio coverage</p>	<p>Key Items: <i>Emergency responder radio coverage shall be provided in accordance with SFC Section 510. For information on emergency responder radio coverage systems, see SFD Client Assistance Memo (CAM) 5123.</i></p>
	<p>Proposal: No exceptions taken to 403.4.5. Emergency responder (BDA/DAS) radio coverage will be provided as required by code, including appropriate monitoring per NFPA 72.</p>
<p>Conference discussion & decisions:</p>	
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<p>403.4.6 Fire command (Center)</p>	<p>Key Items: <i>Dedicated fire command center – provide details on the plans submitted for the pre-submittal conference. Requirements include (but are not limited to) approved location nearby, accessible to the fire service access elevators and minimum room size per SBC 911.1.6. See SFC Section 508.</i></p>
	<p>Proposal: No exceptions taken to 403.4.6 – A fire command center complying with SBC section 911.1.6 & SFC section 508 will be provided as indicated on the attached drawings. The Fire Command Center (FCC) is located on Level 1 with 2-hour fire-rated construction. Proposed total area for FCC room is min 200 sq ft, with least room dimension of 10 ft. See Sheet A1.104.</p>

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The FCC will contain the 19 items below as listed under 911.1.6/SFC 508

1. The emergency voice/alarm communication system control unit.
2. The fire department communications system.
3. Fire detection and alarm system annunciator.
4. Annunciator unit visually indicating the location of the elevators and whether they are operational.
5. Status indicators and controls for air distribution systems.
6. Firefighter's control panel required by Section 909.16 of the 2018 Seattle Fire Code for smoke control systems installed in the building, unless HOA fan control switches and associated status indicators will be included on the fire alarm control panel (FACP) in conjunction with a graphical cross section depiction of the building displaying the exit enclosures and elevators per 909.16 in lieu of a graphical depiction with HOA switches integrated within the graphic.
7. Controls for unlocking stairway doors simultaneously.
8. Sprinkler valve and water-flow detector display panels.
9. Emergency and legally required power status indicators.
10. A telephone for fire department use with controlled access to the public telephone system.
11. Fire pump status indicators.
12. Schematic building plans indicating the typical floor plan and detailing the building core, means of egress, fire protection systems, fire-fighting equipment and fire department access, and the location of fire walls, fire barriers, fire partitions, smoke barriers and smoke partitions.
13. An approved building information card that contains, but is not limited to, the following information:
 - a. General building information that includes: property name, address, the number of floors in the building (above and below grade), use and occupancy classification (for mixed uses, identify the different types of occupancies on each floor), estimated building population (i.e., day, night, weekend).
 - b. Building emergency contact information that includes: a list of the building's emergency contacts (e.g., building manager, building engineer, etc.) and their respective work phone number, cell phone number, and e-mail address.
 - c. Building construction information that includes: the type of building construction (e.g., floors, walls, columns, and roof assembly).
 - d. Exit stair information that includes: number of exit stairs in the building, each exit stair designation and floors served, location where each exit stair discharges, exit stairs that are pressurized, exit stairs provided with emergency lighting, each exit stair that allows reentry, exit stairs providing roof access, elevator information that includes: number of elevator banks, elevator bank designation, elevator car numbers and respective floors that they serve, location of elevator machine rooms, location of sky lobby, location of freight elevator banks.
 - e. Building services and system information that includes: location of mechanical rooms, location of building management system, location and

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	<p>capacity of all fuel oil tanks, location of emergency generator, and location of natural gas services.</p> <p>f. Fire protection system information that includes: location of standpipes, location of fire pump room, location of fire department connections, floors protected by automatic sprinklers, location of different types of automatic sprinkler systems installed (e.g., dry, wet, pre-action, etc.).</p> <p>g. Hazardous material information that includes: location of hazardous material, quantity of hazardous material.</p> <p>14. Work table.</p> <p>15. Generator supervision devices, manual start and stop features.</p> <p>16. Public address system, where specifically required by other sections of this code.</p> <p>17. Elevator fire recall switch in accordance with ASME A17.1.</p> <p>18. Elevator emergency or standby power selector switch(es), where emergency or legally required standby power is provided.</p> <p>19. On-site fire protection water tank fill valve control switch, tank level indicators, tank low level alarm and tank fill signal.</p>
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Conference discussion & decisions:



403.4.8 Emergency power systems	<p><i>Key Items: Provide an emergency power system complying with Chapter 27 and Section 403.4.8. Include size, location and type of generator, fuel tank fill location, and vent terminations. See Director’s Rule 8-2005 on protected above ground fuel tanks. System supervision with manual start and stop features shall be provided at the fire command Center. Provide a 2 hr. separation unless meeting the requirements for the exception for rooms within sprinklered parking garages per Section 909.11. Also see attached “Seattle Requirements for Generator Fuel Tanks” Provide location on the plans submitted for the pre-submittal conference.</i></p>
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	<p>Proposal: Emergency power will be provided to serve the building:</p> <ol style="list-style-type: none"> 1. The building shall be provided by a 600 kW generator provided with a built-in sub-base diesel fuel tank conforming to Seattle requirements for generator fuel tanks. The generator size will be shown in the final electrical permit drawings. 2. The tank shall contain less than 660 gallons of fuel storage as allowed by SFC Section 603.3.2.1 and the fuel tank shall be rated per UL2085. The fuel capacity will be sized to contain a minimum of 8 hours of run time at full load; approximately 420 gallons. 3. The generator will be located in a room on Level L01C (above the below-grade parking vehicle entry ramp). A 2-hr fire barrier constructed in accordance with Section 707, and horizontal assemblies in accordance with Section 711, will be provided. The generator room is bounded by exterior walls to the west and south. 4. The remote fuel fill station is proposed to be located on the exterior of the building facing south [see Level 1 plan A1.104 and A3.609], at least 5 feet from building openings (we would like to discuss adjacent openings) and
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	<p>property lines in accordance with 2018 Seattle Fire Code, Section 5704.2.7.5.2.</p> <ol style="list-style-type: none"> 5. Fill connection when located within a dedicated loading dock shall be within 10-feet of the exterior opening of the loading dock and the loading dock entrance doors shall have openings comprising at least 50% of the door opening. 6. The normal and emergency vents for the diesel tank is located at not less than 12-feet above adjacent grade and at least 5 feet from building openings and property lines in accordance with 2015 Seattle Fire Code, Section 5704.2.7.3.3. 7. Tank specification and tank fill and vent details shall be provided on plans indicating location (with plan and elevation views) and routing of normal and emergency vents for the diesel tanks in accordance with 2018 Seattle Fire Code, Section 5704.2.7.4 and 5704.2.7.3.3. Manifolding of emergency vents is not allowed.
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Conference discussion & decisions:



403.4.8.4* Emergency power loads	<p><i>Key Items: Provide emergency power to exit signs & means of egress illumination; elevator car lighting; emergency voice/alarm communication; fire alarm and detection systems; emergency responder radio coverage system, power and lighting for mechanical equipment rooms and fire command center; lighting for elevator cars, machine rooms, machine spaces and control rooms; Ventilation and cooling equipment for elevator machine rooms, machine spaces and control rooms; fire pumps; smoke control system; all fire service access and occupant evacuation elevators and one elevator per group per Section 3016.9. All elevators shall be transferable to an emergency power system.</i></p>
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	<p>Proposal: Emergency power as required per SBC 403.4.8.4 shall be provided.</p> <ol style="list-style-type: none"> 1. Exit signs & means of egress illumination; 2. Elevator car lighting; 3. Emergency voice/alarm communication; 4. Automatic fire detection systems; 5. Fire alarm systems; 6. Electrically powered fire pumps; 7. Power and lighting for mechanical equipment rooms and fire command center required by Section 403.4.6; 8. Lighting for elevator cars, machine rooms, machine spaces and control rooms; 9. Ventilation and cooling equipment for elevator machine rooms, machine spaces and control rooms; 10. Ventilation and automatic fire detection equipment for pressurized stairways and elevator hoistways; 11. Smoke control system; 12. A selected elevator in each group, in accordance with Section 3016.9. All elevators shall be transferable to an emergency power system.
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	<p>13. For fire service access and occupant evacuation elevators:</p> <ul style="list-style-type: none"> a. Operation of all fire service access elevator cars. b. Operation of all occupant evacuation elevators until they are recalled. c. Elevator controller cooling equipment. d. For fire service access elevators only, elevator hoistway lighting. <p>14. Emergency responder radio coverage.</p>
<p>Conference discussion & decisions:</p>	
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<p>403.5.1* Remoteness of interior exit stairways</p>	<p>Key Item: <i>Exit stairways shall be separated by not less than 30 feet or one-fourth the diagonal dimension whichever is less measured as straight line between nearest points of the outer faces of the walls of the exit enclosures. Pressurization shafts are considered to be part of the stair enclosure and are subject to the separation requirements. Primarily R occupancy buildings are allowed 15 feet.</i></p>
	<p>Proposal: Proposed building is primarily R-2 occupancy and exit enclosures meet the 15 feet separation requirement.</p>
<p>Conference discussion & decisions:</p>	
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<p>403.5.2 Additional exit stairway</p>	<p>Key Items: <i>For buildings other than Group R-2 that are more than 420 feet(128 m) in building height, one additional exit stairway meeting the requirements of Sections 1011 and 1023 shall be provided in addition to the minimum number of exits required by Section 1006.3. Amenity assembly spaces above 420 ft associated with, and ancillary to the Group R-2 occupancy do not require an additional stair. An occupant evacuation elevator per Section 403.6.2 may be provided in lieu of a required additional exit stairway per 403.5.2.</i></p>
	<p>Proposal: Proposed building is less than 420 feet height therefore no additional exit stairway is required for the tower.</p>
<p>Conference discussion & decisions:</p>	
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<p>403.5.3* Stairway door operation</p>	<p>Key Items: <i>Stairway doors must be capable of unlocking upon signal from fire command center and must unlock upon activation of fire alarm anywhere in building. Where stairway doors are not locked from the stairway side, wiring and/or conduit shall be installed to facilitate potential future installation of locking hardware.</i></p>
	<p>Proposal: No exception taken. Conduit rough-in (no wiring) for future stairwell unlocking will be provided for doors that are currently not locked. Stairway doors shall operate and conform to section 403.5.3. If a security door is provided in the staircase, it will unlock upon signal from fire command center and unlock upon activation of fire alarm system. Fail safe (unlock) will be tied to master switch located in the FCC. The roof access doors from the stairs should also unlock but not unlatch if locked.</p>
<p>Conference discussion & decisions:</p>	
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<p>403.5.3.1* Stairway communications system</p>	<p>Key Items: <i>In required stairways a telephone or other two-way communication system connected to an approved constantly attended station shall be provided at not less than every fifth floor in each exit stairway.</i></p>
	<p>Proposal: No exception taken. Two-way communications system shall be installed in compliance with 403.5.3.1.</p>
<p>Conference discussion & decisions:</p>	
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<p>403.5.4* Smoke control in exit stairways</p>	<p>Key Items: <i>Provide a smoke control system complying with Section 403.5.4. Every required exit stairway serving floors more than 75 feet above the lowest level of fire department vehicle access shall comply with Sections 909.20.5 and 1023.11. Smoke control system concepts to be further described and discussed in the smoke control presubmittal conference.</i></p> <p><i>For high-rise buildings that have a simple shaft configuration and utilize shaft pressurization for smoke control (i.e., no building-wide smoke control system), shaft pressurization fan status and controls using switches in accordance with Section 909.16.2 (or equivalent) may be installed on the main fire alarm control panel (FACP) in lieu of installing a dedicated fire-fighter’s smoke control panel. The building graphics normally provided on the smoke control panel shall be laminated and mounted in the vicinity of the FACP for quick reference by emergency responders. See SDCI Director’s Rule: Testing of Stairway and Hoistway Pressurization Systems in High Rise Buildings</i></p>
	<p>Proposal: Stair and elevator pressurization fans shall be sized to provide sufficient air to achieve the required pressure differential of 0.10-0.25 in.wg (stairwells) and 0.10-0.35 in.wg (hoistways). This differential is relative to the adjoining space for the event floor, one floor above, and two floors below; for other floors it may be relative to the ambient. Relief is provided by a dedicated relief fan, which pulls air in reverse of the typical pathway through corridor ventilation ductwork; the fan is isolated via automated dampers from the supply fan at the rooftop level. All fans shall be UL listed for smoke control, and where any wiring or related system elements are not already located within a 2-hour rated shaft, those elements shall themselves be 2-hour rated.</p> <p>In accordance with 909.16.2, controls and fan status indicators shall be located on the FACP if not installed on a dedicated smoke control panel.</p>
<p>Conference discussion & decisions:</p>	
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<p>713.14* Smoke control in elevator hoistways</p>	<p>Key items: <i>Provide hoistway opening protection with one of the following: enclosed elevator lobbies complying with Section 713.14.3; additional doors at each hoistway door opening per 713.14.3 item 3 or elevator hoistway pressurization complying with Section 909.21. Describe which option is being proposed. Pressurization concepts to be further described and discussed in the smoke control presubmittal conference.</i></p>
	<p>Proposal: []</p>

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Conference discussion & decisions:	
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403.5.5 Luminous egress path markings	Key Items: <i>Luminous egress path markings shall be provided in accordance with Section 1025.</i>
	Proposal: Applicant proposes that Luminous <u>Egress path markings are not required</u> because the project's primary occupancy is R-2. East and West Exterior Carves and Exterior Amenity Space on L25 exist primarily for use by building residents and their guests, and these spaces/occupancies are not normally occupied by non-residents or people unfamiliar with the building and its exiting systems
Conference discussion & decisions:	
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403.5.8* Stairway termination	Key Items: <i>All required interior exit stairways shall terminate at a roof in a penthouse with a door complying with Sections 1010.1.1 and 1010.1.2. The building official is permitted to approve an alternate design at the pre-design conference. The intent is for all required stairways to have at least one door or approved penthouse alternate roof hatch that opens directly to the exterior on a roof level, and that all other roof levels may be accessed via stairs, ships ladders or alternating tread devices.</i> <i>See attached "Seattle High-rise Requirements for a Roof Hatch When Approved as a Penthouse Alternate"</i>
	Proposal: Both Stair 1 and Stair 2 provide direct access to roof levels R1 and R2, (unoccupied roofs with mechanical equipment). Stair 2 continues to elevator machine room level, providing direct access within the penthouse. Applicant proposes access to Penthouse Roof within Stair 2 via ship's ladder and roof hatch complying with SFC Section 1011.12.2 in lieu of the "3x12 Penthouse Alternate". Stair 1 access to Penthouse Roof is proposed via ship's ladder from R2 adjacent to Stair 1 discharge to R2. Penthouse Roof is approximately 1,300 SF.
Conference discussion & decisions:	
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403.6* Elevators	Key Items: <i>Elevator installation and operation in high rise buildings shall comply with Chapter 30 and Section 403.6. Describe proposed primary and alternate recall floors.</i>
	Proposal: No exception taken. 1. Primary recall floor is Level 01 which is the ground level. 2. Alternate recall floor is proposed as L01C, one story above. Note that L01C opens to the Level 01 story below.
Conference discussion & decisions:	
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403.6.1* Fire service access elevator	Key Items: <i>In buildings with occupied floor more than 120 ft. above the lowest level of fire department vehicle access, a minimum of two fire service access elevators shall be provided in accordance with Section 403.6.1. Each fire service access elevator shall be served by a different machine or control room. Indicate location of</i>

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	<i>fire service access elevators, and how the water prevention requirements of Section 403.6.1.2 will be complied with. Sump capacity shall be 3000 gph per state code requirements. Note: Separate shafts and pressurizations systems are not required for the two fire service access elevators.</i>
	Proposal: Project includes Elevator 2 and Elevator 3 for fire service access elevators (FSAE). Elevator lobby finish floors are elevated above corridor floor elevations by 3/4 inches, and the elevator thresholds are planned to be 1/4 inch above elevator lobby finish flooring. Elevator lobby entries will be sloped to drain water away from elevator shafts. Sloped elevator lobby flooring information and elevator threshold details will be provided on submitted permit plans. A sump pump sized for 3,000 gallons per hour per car will be provided for the elevator shaft serving floors 120 feet above the lowest level of fire department vehicle access.
Conference discussion & decisions:	
403.8* Emergency operational plan	Key Items: <i>In accordance with SFC Section 404, the building is required to have a Fire Safety and Emergency Plan. SFC Section 9309 requires that a Fire Safety Director appointed by the building owner is responsible to oversee the preparedness and initial response of a building's fire and life safety systems and building occupants to a fire alarm, in addition to conducting annual emergency evacuation drills. For more information, see SFD CAMs 5963 and 5982.</i>
	Proposal: Project will comply.
Conference discussion & decisions:	
Chapter 7	
712* Vertical openings	Key Items: <i>The code limits the number of stories that can be in common atmosphere with one another without the required fire barrier separation between them. The plans submitted for the predesign meeting should show all architectural floor openings including those relating to escalators. If architectural floor openings reach the threshold meeting the definition of an atrium, the atrium code requirements shall be addressed. Note any garage elevators or duct system using the provisions of Section 712. Fire alarm and smoke control systems will need to be designed to take unenclosed vertical openings into account.</i>
	Proposal: Listed below are stories containing common atmosphere for discussion: <ol style="list-style-type: none"> 1. L01/L01C/L02 – L02 is proposed to have a 2. Residential townhouse units at L06/L07 and L08/L09 that have internal stairs connecting upper and lower levels. The Carve Terrace East L07-L09 and Carve Terrace West L16-L18 are exterior spaces open on 2 sides without common atmosphere, however, covered by structure. In addition to plans, please refer to Carve Terrace Exhibit sheets A3.610 and A3.611.
Conference discussion & decisions:	
CHAPTER 10, MEANS OF EGRESS	
Chapter 10* General	Key Items: <i>Provide an exiting plan and describe any issues requiring interpretation or a code alternate or code modification. Indicate occupancy loads and load factors</i>

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	<i>for all assembly type spaces. Clearly note all locations where exit access stairways are being proposed.</i>
Code Alternate/ Modification <input type="checkbox"/> (form attached)	<p>Proposal: Plans, occupancy loads, and load factors provided. See sheets T1.303 – T1.309.</p> <p>Occupancy classification for exterior, uncovered roof amenity areas at levels L25 are identified as “Exterior Space” Occupancy having a Load Factor of 15sf/occ for occupiable portions of uncovered, exterior space. Covered exterior roof amenity areas at L07-L09 and L16-L18 are classified as B Occupancy having a Load Factor of 15sf/occ for occupiable portions of covered, exterior space.</p> <p>Multi-level covered exterior spaces are broken down by floor for quantified occupancy [FOR DISCUSSION]. Additional graphics are provided on sheet T1.309 of the 3 levels and the common path of travel.</p> <p>Exterior areas that are covered by less than 2 ft of roof overhang or similar horizontal projection shall be identified as uncovered, “Exterior Space” for purposes of Occupancy and Load Factor.</p>

Conference discussion & decisions:

CHAPTER 30, ELEVATORS

3016.9* Elevator operation on emergency power - recall	<i>Key Items: Elevators shall comply with Sections 3016 through 3019 for hoistway smoke control (lobbies, extra doors or pressurization), elevator operation on emergency power, general emergency operation requirements, and phase I and phase II recall requirements.</i>
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	<p>Proposal: Elevators will comply with Sections 3016 through 3019.</p> <ol style="list-style-type: none"> 1. The building elevator hoistways will be pressurized. 2. The elevators will comply with elevator operation on emergency power general emergency operation requirements and will allow for Phase 1 & Phase 2 recall requirements. 3. The two fire service access (FSA) elevators will be equipped with emergency power that will automatically transfer upon loss of power. Both elevators are capable of running simultaneously on the generator. 4. The panel serving the lights for the residential building car and machine rooms will be fed from the generator. 5. The fire command center will be equipped with the elevator status panel for the building. <p>In an event, the elevators will recall one at a time, but both may be operated at the same time.</p>
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Conference discussion & decisions:

3020.1* & 3020.4* Construction of Hoistways, and	<i>Key Items: Construction of hoistways and hoistway enclosures shall comply with ASME A17.1 Section 2.1 as amended.</i>
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machine and control rooms	
	Proposal: Project will comply.
Conference discussion & decisions:	
OTHER	
Other	<i>Describe any significant interpretation requests or special conditions you wish to address including any issues requiring a code alternate or code modification.</i>
Code Alternate/ Modification <input type="checkbox"/> (form attached)	Proposal: <ol style="list-style-type: none"> 1. Confirmation of proposed FCC location. 2. Confirmation of proposed stairway access to Roof. 3. Confirmation of proposed occupancy classifications, common path of travel and exiting strategy for the Carve Terrace East L07-L09 and Carve Terrace West L16-L18. 4. This highrise includes 10, 2-level residential units. The intention is to use fire-retardant-treated wood for internal unit stairs within the townhouses in accordance with SBC 603.1.27 combustible material in Type I construction for Group R occupancy. Please confirm allowable per SBC 603.1.27.
Conference discussion & decisions:	

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Seattle Requirements for High-Rise Secondary Water Supply

Water Tank: An automatic secondary on-site water supply storage tank shall be provided for high-rise buildings in accordance with SFC Sec. 904.3.2, and meet the requirements of NFPA 22 and the following:

OPTION 1 Single Fire Pump with Storage Tank Having Automatic Refill Features

Tank Refill Lines:

Dual automatic refill lines, each capable of refilling the tank at a minimum rate of 110 percent of the fire pump(s) capacity, shall be installed. Ref: SFD Administrative Rule 9.03.20 or its successors

A manual tank fill bypass designed for and capable of refilling the tank at a minimum rate of 110 percent of the fire pump(s) capacity shall be provided. Ref: SFD Administrative Rule 9.03.20 or its successors

Tank Fill Valves and Control Systems: The two automatic refill lines shall have separate automatic tank fill valves that are listed for fire service and arranged for automatic operation. Each automatic tank fill valve shall be provided with a separate approved means of actuation such as float assemblies, pressure sensors, etc. that are supervised by the fire alarm system. The status of the valves (i.e., 'open', 'closed') shall be indicated at the valves and in the Fire Command Center (FCC).

The tank shall be kept filled, and the water level shall never be more than 4 inches below the designated fire service level. Ref: NFPA 22 - 14.4.3

Tank Level Indicators: Two tank level indicators are required, one located in the FCC and another in the immediate vicinity of the tank fill valves. The tank level indicator monitoring shall be provided through the fire alarm system in accordance with NFPA 72.

Two separate and distinct signals shall be initiated: one indicating that the required water level has been lowered or raised (off-normal), and the other indicating restoration. Ref: NFPA 72 - 17.16.3.1

The off-normal signal shall be initiated when the water level falls three inches or rises three inches. Ref: NFPA 72 - 17.16.3.2.1

Tank Low Level Alarm: Separate and distinct tank low level audible and visible alarms shall be provided in the FCC and in the vicinity of the tank fill valves, and activate when the tank water level drops below 50% capacity. The tank low level monitoring shall be provided

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through the fire alarm system in accordance with NFPA 72. The signaling devices shall be clearly labeled "Water Tank Low Level Alarm" or equivalent. An independent silence switch shall be provided for the tank low level alarms in the immediate vicinity of the alarm devices.

Tank Overflow Protection: An approved means to prevent the tank from overflowing into the building shall be provided. Where an automatic shutoff valve is provided, it shall be listed for fire service and have dual (redundant) means of actuation such as two float assemblies, pressure sensors, etc. that are supervised by the fire alarm system. The valve shall be supervised by the fire alarm system and status (i.e., 'open', 'closed') indicated at the valve and in the FCC.

Pump By-pass: A full size by-pass shall be installed around the storage tank and the fire pump in accordance with NFPA 20. The by-pass shall be installed on the supply side of the tank fill valves and connected to the system on the downstream side of the fire pump and any sprinkler system pressure regulating valves installed on feed mains.

OPTION 2: Two Fire Pumps and Storage Tank Without Automatic Refill Features

The primary fire pump shall be supplied by a dedicated fire service main and the secondary fire pump supplied from the storage tank. The pumps shall operate at the same rated flow capacity and at similar discharge pressures. When using Option 2, automatic refill of the tank is not required.

The means to fill the tank shall be sized to fill the tank in a maximum time of 8 hours. Ref: NFPA 22 – 14.4.2

The tank shall be kept filled, and the water level shall never be more than 4 inches below the designated fire service level. Ref: NFPA 22 - 14.4.3

Tank Level Indicator: A tank level indicator is required in the immediate vicinity of the tank fill valve.

Pump By-pass: A full size by-pass shall be installed around the primary fire pump in accordance with NFPA 20. The by-pass shall be connected to the system on the downstream side of any sprinkler system pressure regulating valves installed on feed mains.

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Seattle Requirements for High-Rise Generator Fuel Tanks

Ensure that the as a minimum the following information is provided on the on the architectural plan submittals:

1. Provide detail on plans indicating type of tank (i.e., UL-142, UL-2085, or other type of tank), type of fuel, and how much will be stored on-site.
2. Provide detail on plan (plan and elevation views) showing the location of the diesel fill connection, located on the exterior of the building, at least 5 feet from building openings and property lines in accordance with SFC Section 5704.2.7.5.2.
3. Provide details on plans indicating location (plan and elevation views) and routing of normal vent for diesel tank (manifolding of normal vents is not allowed) in accordance with SFC Section 5704.2.7.3.3.
4. Provide details on plans indicating location and routing of emergency vents diesel tanks (manifolding of emergency vents is not allowed) in accordance with SFC Section 5704.2.7.4.

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Seattle Requirements for Protection of Wiring Required by Section 909.11

1. Power and control wiring that serves the pressurization and other smoke control equipment, regardless of voltage, shall have fire-resistance-rated protection (rated cable, installation in shafts, embedment, etc.) of at least two hours. **Exception:** Fire-resistance rating is not required for wiring serving a generator in an unprotected area in a garage that is separated from the rest of the building by 2 hour-rated construction.
2. Where wiring protection is provided by installing in a rated shaft, protection of wiring is required between the fire command center and the shaft.
3. Protection of wiring is not required for rooftop or penthouse wiring where installed outside the building envelope or in a penthouse that is not required to be protected.
4. Protection is not required for HVAC fans used to exhaust intermittent floors.
5. Protection is not required for the dampers on the HVAC equipment unless dedicated for shaft pressurization.
6. Wiring required to have 2-hour protection can be in a shaft with other wiring. The "independent route" requirement in Section 909.11 means separate raceway from normal power.

**Seattle High-Rise Requirements for a Roof Hatch
When Approved as a Penthouse Alternate**

* Seattle amendment to IBC

Project Name: OneU – 1013 NE 45TH ST
Permit number: 6826950-CN

1. Roof hatch dimensions shall be a minimum of 3'-0" wide x 12'-0" long.
2. Roof hatch shall be installed with a snow sensors/heating cables system.
3. Roof hatch shall be motorized with a remote pushbutton station located at the base of the top stair landing leading to the hatch.
4. Roof hatch electrical system shall be on building emergency power.
5. Provide switch in the Fire Command Center that unlocks the electro-magnetic locks on the hatch doors.
6. Interlock electromagnetic locks on hatch doors with fire alarm system to unlock automatically on any fire alarm signal.
7. Roof access shall be provided by extending the stairway or providing an alternating tread device to the roof surface. Ensure required headroom clearance is met where the stair or alternating tread device leads to the hatch.
8. Roof hatch shall be operable from the roof.