



HIGH-RISE PRESUBMITTAL CONFERENCE (2018 SBC)

Date: [Apr. 3rd. 2023]

PROJECT INFORMATION		APPLICANT INFORMATION	
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PROVIDE BRIEF DESCRIPTION OF PROJECT. INCLUDE OVERALL SIZE, NUMBER OF STORIES CONSTRUCTION TYPE AND OCCUPANCIES:

44-story, 500-unit apartment building with ground floor retail and 3 levels of office at the corner of 5th Ave and Virginia.

7-levels of below grade parking for 300 vehicles proposed and bicycle parking.

Facades of existing landmark buildings to be retained. Remainder of existing buildings to be demolished.

Project gross floor area is approx. 642,887 gsf, including approx. 131,057 gsf in the underground garage.

- The project is being designed to comply with the 2018 Seattle Building (& related) Code(s), for Type IA construction. Occupancy types include (R2) Residential, (S2) Parking & Storage, and (B) Office and A2 (restaurant) and (A3) Assembly.

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.	<i>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.</i>
	<i>Proposal: Building is approx.. 440' tall, building risk category II. (Below 5000 occupants) Two fire service access elevators proposed. All elevator hoistways will comply with section 403.2.3.1 though 403.2.3.4</i>
Conference discussion & decisions:	
403.3* Automatic sprinkler system	<i>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: 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.</i>

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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: [Rushing]</p> <p>A combination standpipe/sprinkler system shall be provided in strict compliance with the 2018 Seattle Fire Code Section 903.3.1.1.3. The system will include:</p> <ul style="list-style-type: none"> • A tank with minimum 33,000 gallons of usable volume in accordance with Section 914.3.2 is included on level P7 & P6, with an electric powered vertical turbine fire pump oriented directly above the tank on level P5. Phase 1 permit will include calculations of tank volume Fire pump room will be 2 hour rated. • Each floor sprinkler system shall be connected between standpipe risers. • 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. • Two four-way fire department connections serving the combination standpipe/sprinkler system shall be provided. FDC's will be located on 5th Avenue and Virginia Street. The FDC's will be well separated (minimum 100') and located 10' from main entry doors, generator tailpipe, and garage entrances. • A mid level fire pump room will be provided, with exact floor location TBD. Two pumps with the same rating shall be installed. • At least one of the fire department connections shall be connected to the riser above a riser isolation valve. • The dry-pipe sprinkler system serving the garage levels and unheated spaces will be supplied by the on-site water tank. • The standpipe risers in each required stair shall be a minimum pipe size of 6 inches. • 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. • 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.
Conference discussion & decisions:	
403.3.2* Water supply to required fire pumps.	<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 than two water mains located in different streets.</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>
	<p>Proposal: [Rushing]</p>

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	Proposed construction type will be Type I-A. The requirements of 403.3.2 do not apply.
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: [Rushing] A Life Safety System shall be provided in strict compliance with the 2018 Seattle Fire Code Section 907.2.12. The system will be an addressable Life Safety System will be provided which will include:</p> <ul style="list-style-type: none"> • Automatic smoke detection system in accordance with Section 907.2.12.1. Area smoke detectors shall be located in each mechanical equipment, electrical, transformer, telephone equipment or similar room which is not provided with sprinkler protection. Area smoke detectors shall be located in each elevator machine room, control room, and in elevator lobbies. Duct smoke detection shall be installed in strict compliance with Section 907.2.12.1.2. • Manual fire alarm boxes in accordance with Section 907.4.2. Only one manual station will be provided as the building is fully sprinklered. It will be located in the FCC. • 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. • Fire department communication system in accordance with Section 907.2.12.2. City of Seattle requires DAS in all high-rise buildings. • Emergency voice/alarm communication system in accordance with Section 907.5.2.2. 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. • Alarm notification appliances in accordance with Section 907.5.2.1. 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 15 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 building. • 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. • Monitoring in accordance with Section 907.6.6. The Life Safety system will be monitored by an approved supervising station in accordance with NFPA 72.

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	<ul style="list-style-type: none"> As required by NFPA 72 Section 21.5 all FSAE lobbies will be monitored by addressable combination heat/smoke detection sensors. A high temperature indicator light for every floor will be displayed in the smoke control panel located in the FCC.
Conference discussion & decisions:	
403.4.4 Emergency voice/alarm communication systems	<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: [Rushing] This system will be part of the fire alarm system to meet code requirements and will conform to 907.5.2.2 and NFPA 72. The system will operate on a minimum of the alarming floor, the floor above and two floors below. See description under Section 403.4.2 above for further details.</p> <p>NOTE: No areas of refuge are planned for the building.</p>
Conference discussion & decisions:	
403.4.5 Emergency responder radio coverage	<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: [Rushing] No exception to the BDA/DAS system required by code. Emergency responder radio coverage will be provided for the building per 2018 SFC Section 510 (SFD CAM 5123).</p>
Conference discussion & decisions:	
403.4.6 Fire command (Center)	<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: Fire Command Center is planned at the ground floor (main residential lobby), close to the elevator core (FSAEs) and Stair#1, and visible from the lobby entry door. FCC rooms will be built to the requirements referenced and have a minimum area of 200 SF and overhead clearance of 7'-6"</p>
Conference discussion & decisions:	

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<p>403.4.8 Emergency power systems</p>	<p>Key Items: <i>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>
	<p>Proposal: (RUSHING)</p> <p>The Standby Electrical System shall be served from both the main switchboard and Diesel Generator via automated transfer switches (ATS). Under normal conditions, the standby system will be connected to the main switchboard. Should normal power be lost, the ATS will automatically switch to the generator.</p> <ol style="list-style-type: none"> 1. An emergency power system complying with section 2702 will be provided for the emergency power load specified below. <ol style="list-style-type: none"> a. Exit signs and means of egress illumination b. Elevator car lighting c. Emergency voice/alarm communications systems d. Automatic fire detection systems. e. Fire alarm systems. f. Electrically powered fire pumps g. Power and lighting for mechanical equipment rooms and the fire command center required by Section 403.4.6 h. Lighting for elevator cars, machine rooms, machine spaces and control rooms. i. Ventilation and cooling equipment for elevator machine rooms, machine spaces and control rooms. j. Ventilation and automatic fire detection equipment for pressurized stairways and elevator hoistways. k. Smoke control system. l. A Selected elevator in each elevator group, in accordance with Section 3016.6. All elevators shall be transferable to an emergency power system. m. For fire service access and occupant evacuation elevators: <ol style="list-style-type: none"> 1. Operation of all fire service access elevator cars. 2. Operation of all occupant evacuation elevators until they are recalled. 3. Elevator controller cooling equipment. 4. For fire service access elevators only, elevator hoist way lighting. n. Emergency responder radio coverage.

	<ol style="list-style-type: none"> 2. Emergency power shall be provided by an estimated 1250 kW generator located on Level P1 with a sub-base diesel fuel tank conforming to Seattle requirements for generator fuel tanks. 3. Per SBC section 403.4.8.1 exception 2 the generator will be located within the S-2 occupancy enclosed parking garage without a rating between the garage and the room for the walls adjacent to the parking garage. Adjacent space that is not garage will be separated from the generator room with 2-hr rated fire barrier wall. Make-up air will be transferred from the adjacent parking garage and the generator radiator exhaust air shall be discharged to the P2 parking level. Garage exhaust fans will be on emergency power to prevent heat buildup in the garage during generator operation. 4. The tank shall contain 3000 gallons or less of fuel storage. The fuel tank shall be rated per UL 2085. Approximate fuel storage is planned for 8 hours of run time at 100% load (800 Gallons). 5. The emergency fuel vents for the UL 2085 tank will terminate inside the building per 2018 SFC 5704.2.7.4 exception 2. 6. The diesel fuel fill station is located on the building exterior at least 5 feet from building openings and property lines in accordance with SFC Section 5704.2.7.5.2. 7. OR The diesel fuel fill station is located within the loading dock per the exception under 2018 Seattle Fire Code, Section 5704.2.7.5.6. within 10' of the loading dock entrance. Loading dock entrance doors will include 50% free area. 8. The normal vent for diesel tank will terminate outside the building (not less than 12-feet above adjacent grade) and no less than 5 feet from building openings and property lines in accordance with 2018 Seattle Fire Code, Section 5704.2.7.3.3. 9. Combustion exhaust tailpipe shall be located 10' from property lines, 3' from exterior walls and roofs, 10' from operable openings into buildings (except for the radiator discharge opening as the radiator and tailpipe discharge always operate simultaneously), and minimum 10' above adjoining grade (2018 SMC 501.3.1). <p>The architectural and engineering plans submitted for building permit will indicate:</p> <ol style="list-style-type: none"> 1. Size, type, and location of emergency generator fuel tank 2. Location, routing, and details of fuel fill station 3. Locations, routing, and details of vents' including required clearances from operable openings <p>At the direction of the Fire Marshal, architectural plans that lack this information will not be approved; this information must be clearly and explicitly noted on the architectural plans and not on just mechanical or electrical plans; this information may not be deferred or referred to "by others."</p>
Conference discussion & decisions:	

<p>403.4.8.4* Emergency power loads</p>	<p>Key Items: <i>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>
	<p>Proposal: [Rushing] No exceptions taken. Emergency power shall be provided for the following loads per section 403.4.8.4:</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 the fire command center required by section 403.4.6 8. Lighting for elevator machine rooms, machine spaces and control rooms, in addition to the elevator car lighting. 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 elevator group in accordance with Section 3016.16. All elevators shall be transferable to an emergency power system. 13. Fire Service Access Elevators (FSAE's) and associated sump pumps (Emergency power provided to FSAE sump pumps only, not to non-FSAE hoistways.) 14. Emergency responder radio coverage. 15. Exit Stairway Roof Hatches <p>Code required loads noted above will be served by the emergency power system</p> <p>All elevators will be provided with emergency power, but only one elevator will operate at a time. A manual selector switch, located in the fire command center, will be provided so that emergency personnel can manually change which car has power.</p> <p>HVAC Equipment on emergency power includes:</p> <ul style="list-style-type: none"> • Stairway Pressurization Fans • A building pressure relief fan utilized to maintain the '4 fire floor' pressure relationships • Elevator Control Room ventilation system(s) <p>Ventilation system for the Fire Pump Room.</p>
<p>Conference discussion & decisions:</p>	
<p>403.5.1*</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</i></p>

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Remoteness of interior exit stairways	<i>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>
	Proposal: Exit stairway configuration complies with the separation requirements referenced. (>15' in the tower and stairs in the podium and parking levels comply with this requirement.
Conference discussion & decisions:	
403.5.2 Additional exit stairway	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>
	Proposal: NA. Building is primarily R-2, rooftop roof top amenity serves residents only.
Conference discussion & decisions:	
403.5.3* Stairway door operation	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>
	Proposal: Any locked egress stairway doors will be fire alarm controlled to unlock on alarm. Egress stairway doors without electronic locks will have rough in provisions in the event of future locks being added. (RUSHING) 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.
Conference discussion & decisions:	
403.5.3.1* Stairway communications system	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>
	Proposal: Emergency two-way communication stations will be installed in the egress stairway every fifth floor as well as elevator lobbies
Conference discussion & decisions:	

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<p>403.5.4* Smoke control in exit stairways</p>	<p>Key Items: 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.</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: (RUSHING)</p> <p>Interior Exit Stairway 1 and 2 enclosures will be provided with pressurization systems in compliance with sections 909.20.5 and 1023.11. Interior exit stairways will be pressurized to a minimum of 0.10" and maximum of 0.35".</p> <p>Stairway 3 is 75 feet above the level of exist discharge, stairway pressurization will be provided.</p> <p>The pressurized stairway is measured relative to adjacent area except that the pressure differential will be measured relative to atmosphere on floors other than the fire floor, two floors below, and the floor above the fire floor as allowed in 909.20.5 and 909.21. On the parking garage floors the pressure will be measured relative to the adjacent parking area that is open to ambient.</p> <p>A rational analysis complying with Section 909.4 and 909.21.3 shall be submitted with the construction documents. The rationale analysis will go into more details on system operation and relief requirements to maintain pressure differentials.</p> <p>Supply air for stairway pressurization shall be supplied at intervals sufficient to maintain the required pressure throughout the interior exit stairway. Project intent is to supply air at approximately every third and not more than four floors from the bottom of each stairway.</p> <p>Exit passageways will be pressurized via air from the vertical exit enclosure. There is no wall between stair and exit passageway as rated separation is not required per SBC 1023.3.1 exception 3.</p> <p>Shaft pressurization fan status and controls using switches in accordance with Section 909.16.2 (or equivalent) will 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.</p> <p>Pressurization systems will be tested per Directors Rule 2022-XX (not yet released by SDCI).</p> <p>A separate 909 Presubmittal Conference will be scheduled to take place a minimum of 60 days prior to architectural Phase 2 building permit intake per 909.1.1.</p>
<p>Conference discussion & decisions:</p>	

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713.14* Smoke control in elevator hoistways	Key items: 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.
	Proposal: Enclosed elevator lobby complying with 713.14.3 are provided at elevator lobbies (of the tower) except level 1. Elevator hoistway pressurization is not required. Elev#5 connects 4 stories (L1, L2.5, L3.5 and L4.5) hoistway opening will be provided. (self-closing door or Smoke guard?)
Conference discussion & decisions:	
403.5.5 Luminous egress path markings	Key Items: Luminous egress path markings shall be provided in accordance with Section 1025.
	Proposal: Luminous egress path markings are not provided, as the tower is primarily R2 occupancy and the A occupancy on the top level is for the residents only.
Conference discussion & decisions:	
403.5.8* Stairway termination	Key Items: 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. See attached "Seattle High-rise Requirements for a Roof Hatch When Approved as a Penthouse Alternate"
	Proposal: Proposed approach is for both tower stairway to extend to the mechanical roof level with door opening on to the roof, and one stairway to stop at the Elevator machine control level with a roof hatch access the roof over Elev control room. Mech Roof and Elev Control room roof are considered non-occupied.
Conference discussion & decisions:	
403.6* Elevators	Key Items: Elevator installation and operation in high rise buildings shall comply with Chapter 30 and Section 403.6. Describe proposed primary and alternate recall floors.
	Proposal: (RUSHING): Primary elevator recall is planned to be L1. Alternate elevator recall floor is planned to be L2.

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Conference discussion & decisions:	
403.6.1* Fire service access elevator	<p>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 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></p>
	<p>Proposal: Propose design has two fire service access elevators (FSAE) designed in accordance with Section 403.6.1 of SBC. Elevators #3 and #4 are FSAE elevators and they are traction elevators. Two machine rooms, located on the roof, are provided for each two-car group so that the equipment for the two FSAE are in separate rooms.</p> <p>Permanent sump provisions in the pits with a capacity of 3,000 gph will be provided, complying with applicable plumbing code requirements. In addition to elevator lobby doors (with a threshold at the floor), a 2% max.slope in typical elevator lobby floor slabs, sloping away from the elevator hoistway doors, is proposed to prevent water from the building sprinkler system from entering the hoistways of the FSAE 1" FSAE threshold needs to be 1" higher than corridor floor elevation.</p>
Conference discussion & decisions:	
403.8* Emergency operational plan	<p>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></p>
	<p>Proposal: Building owner will provide a Fire Safety and Emergency Plan and appoint a Fire Safety Director, complying with these requirements.</p>
Conference discussion & decisions:	
Chapter 7	
712* Vertical openings	<p>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></p>
	<p>Proposal: No atrium is proposed, lobby mezzanine connects L1 and L1.5 .No elevator serving parking garage only; mechanical exhaust in parking garage shall be permitted to be unenclosed.</p>
Conference discussion & decisions:	

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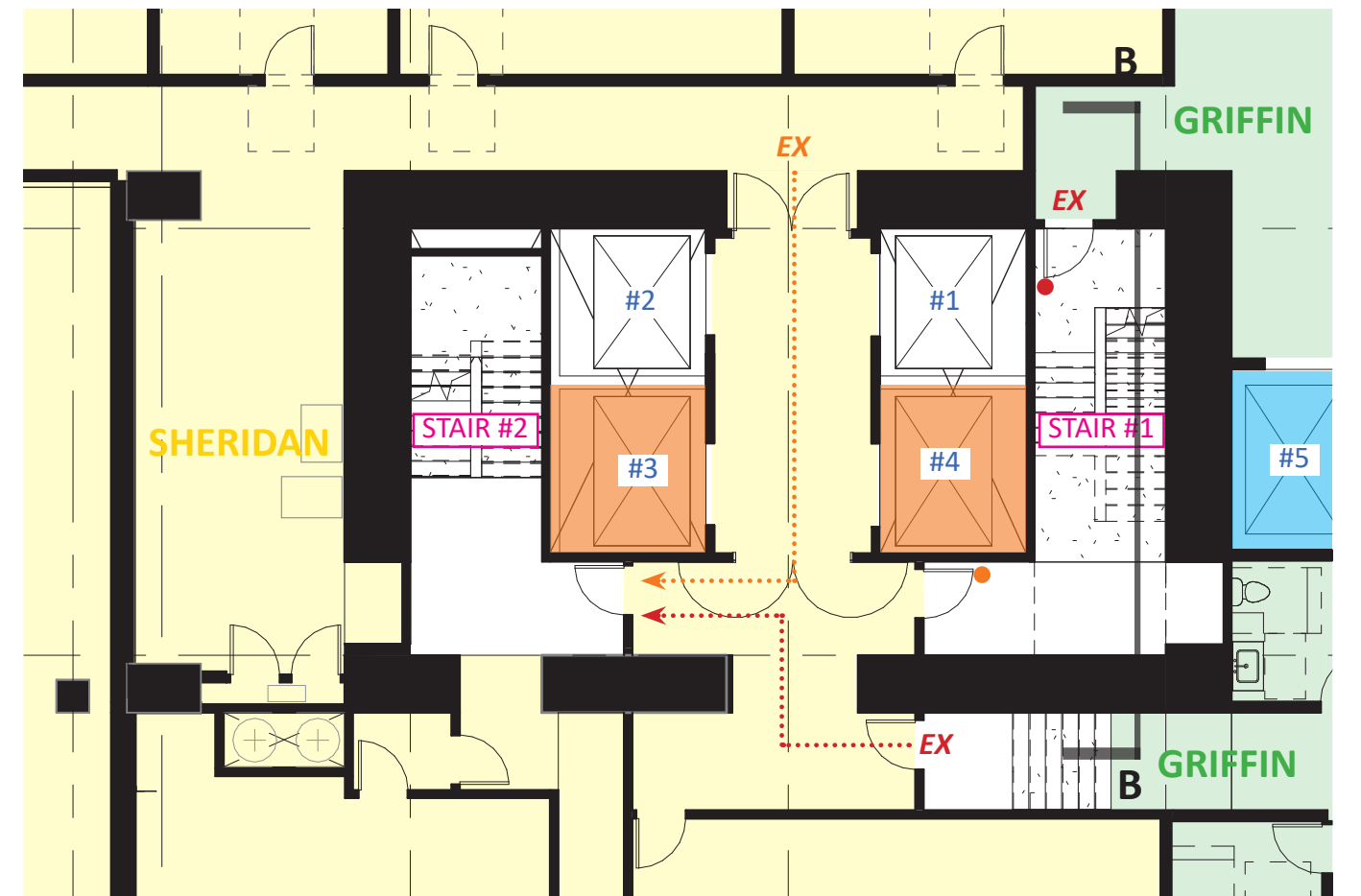
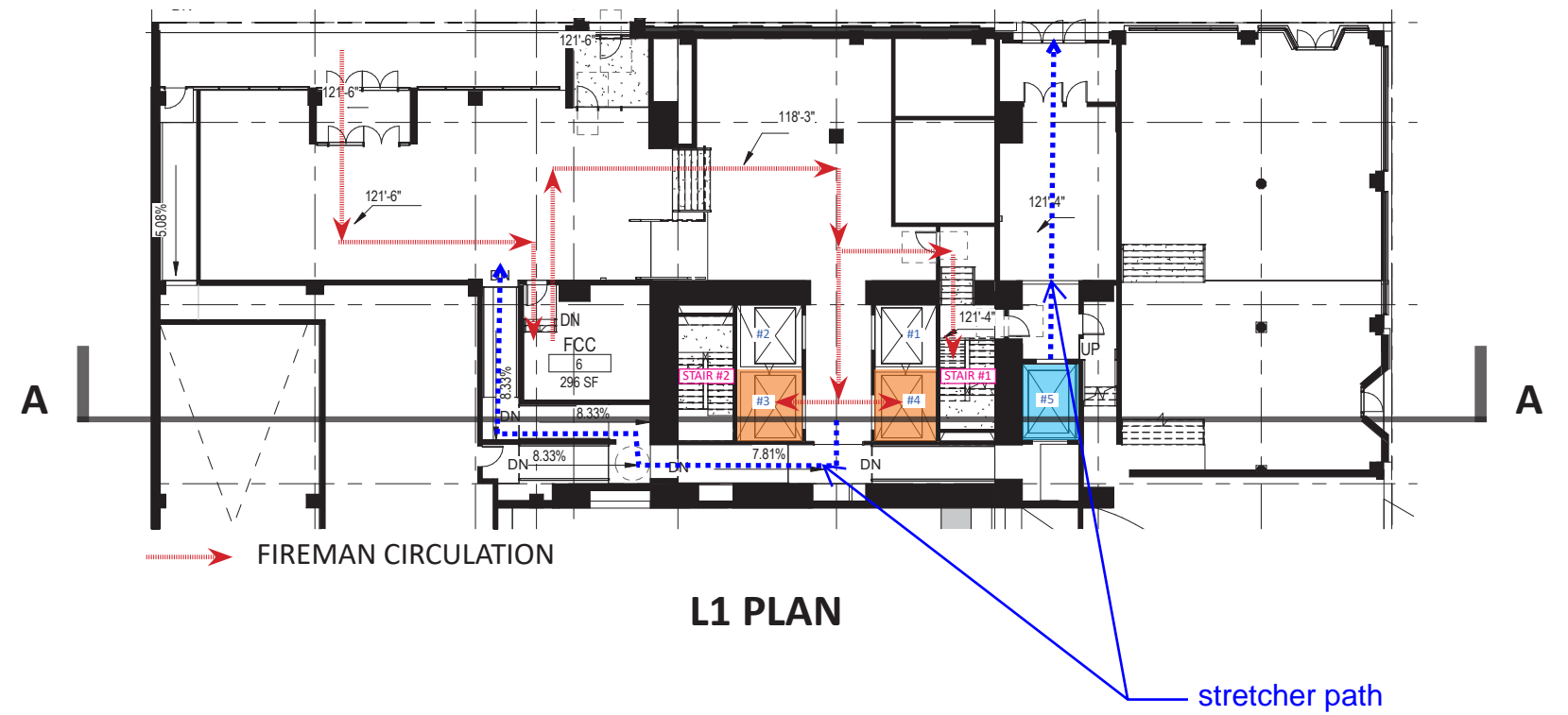
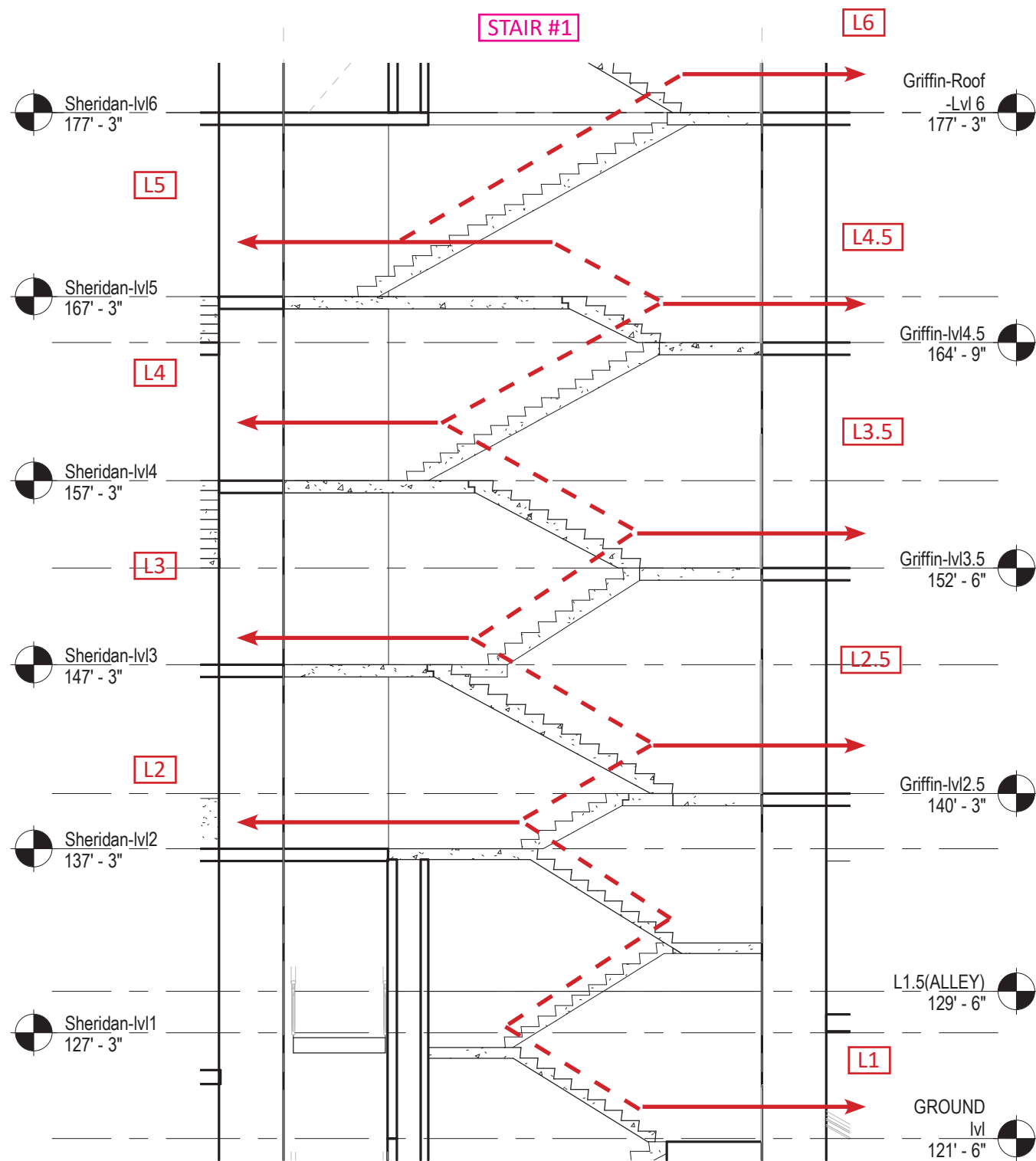
CHAPTER 10, MEANS OF EGRESS	
Chapter 10* General	<i>Key Items: Provide an exiting plan and describe any issues requiring interpretation or a code alternate or code modification. Indicate occupancy loads and load factors for all assembly type spaces. Clearly note all locations where exit access stairways are being proposed.</i>
Code Alternate/ Modification <input type="checkbox"/> (form attached)	<p>Proposal: (Draft) egress plans are included in the attached packet showing,</p> <p>Stair#1 has access to all levels, including both historic building floor levels. the mechanical roof, and all parking garage levels.</p> <p>Office space in Griffin building exits through Stair#1 and Stair #2</p> <p>FSAE do not stop on office/Griffin levels (L2.5, 3.5 and 4.5)</p> <p>Elev#5 serves at the AME for office levels (L2.5, 3.5 and 4.5)</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>
	<p>Proposal: (RUSHING)</p> <p>No exception taken.</p>
Conference discussion & decisions:	
3020.1* & 3020.4* Construction of Hoistways, and machine and control rooms	<i>Key Items: Construction of hoistways and hoistway enclosures shall comply with ASME A17.1 Section 2.1 as amended.</i>
	<p>Proposal: All elevator hoistway will be 2-hr fire barrier. Elev Control room to be 1-hr fire partition. No exception taken.</p>
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)	<p>Proposal:</p> <p>1. Two landmark buildings on site and have different floor to floor height. the infill portion on the north matches the Sheridan building elevations. FSAE stops at the Sheridan building levels and access Griffin levels via stair#1.</p>

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HIGH-RISE PRESUBMITTAL CONFERENCE

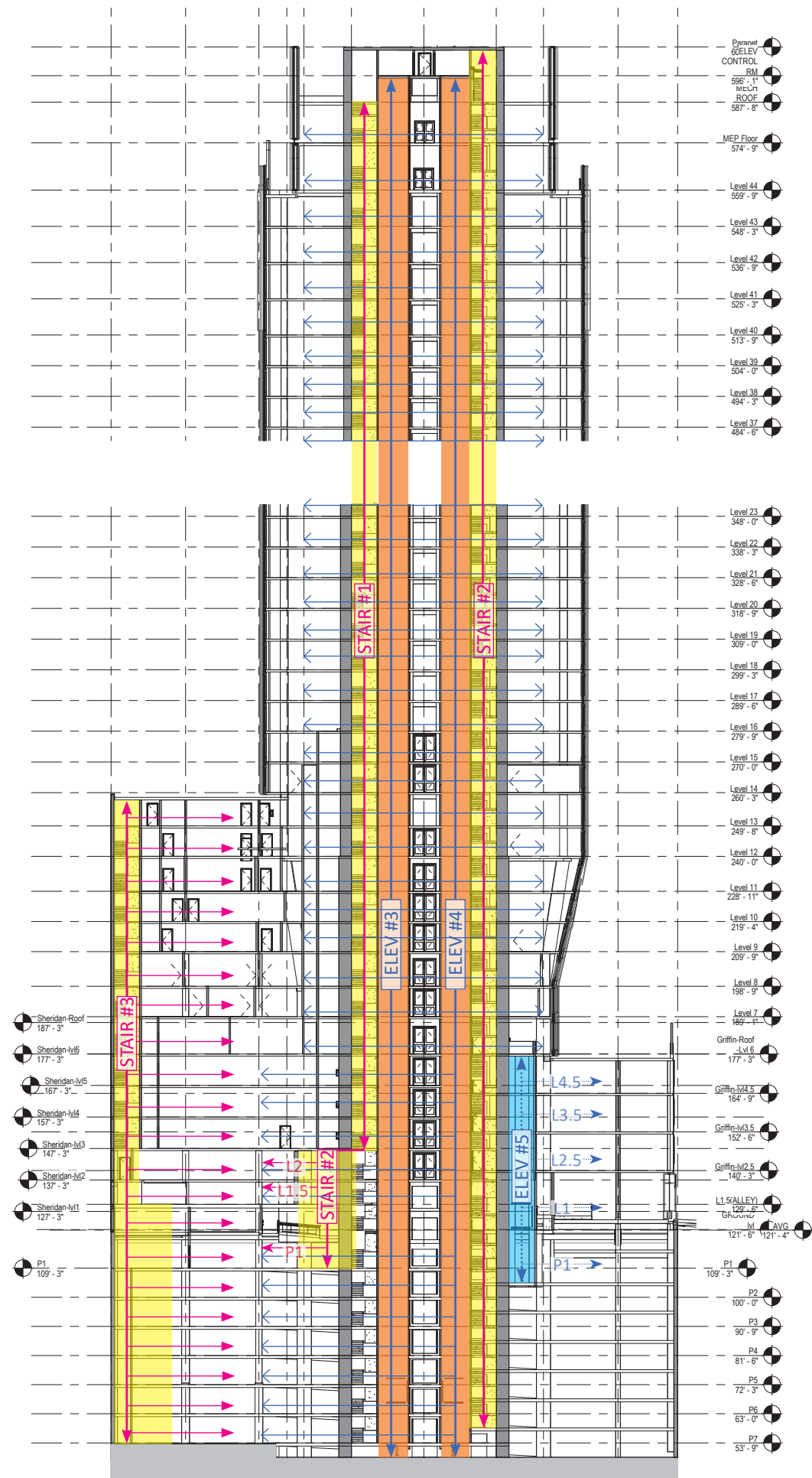
Page 14

	<p>Office elevator serves as the Accessible means of egress elevator for Griffin levels.</p> <p>2. Stair#1 has access to all levels via doors on east and west side of the stair enclosure.</p> <p>see page 15-17</p>
Conference discussion & decisions:	



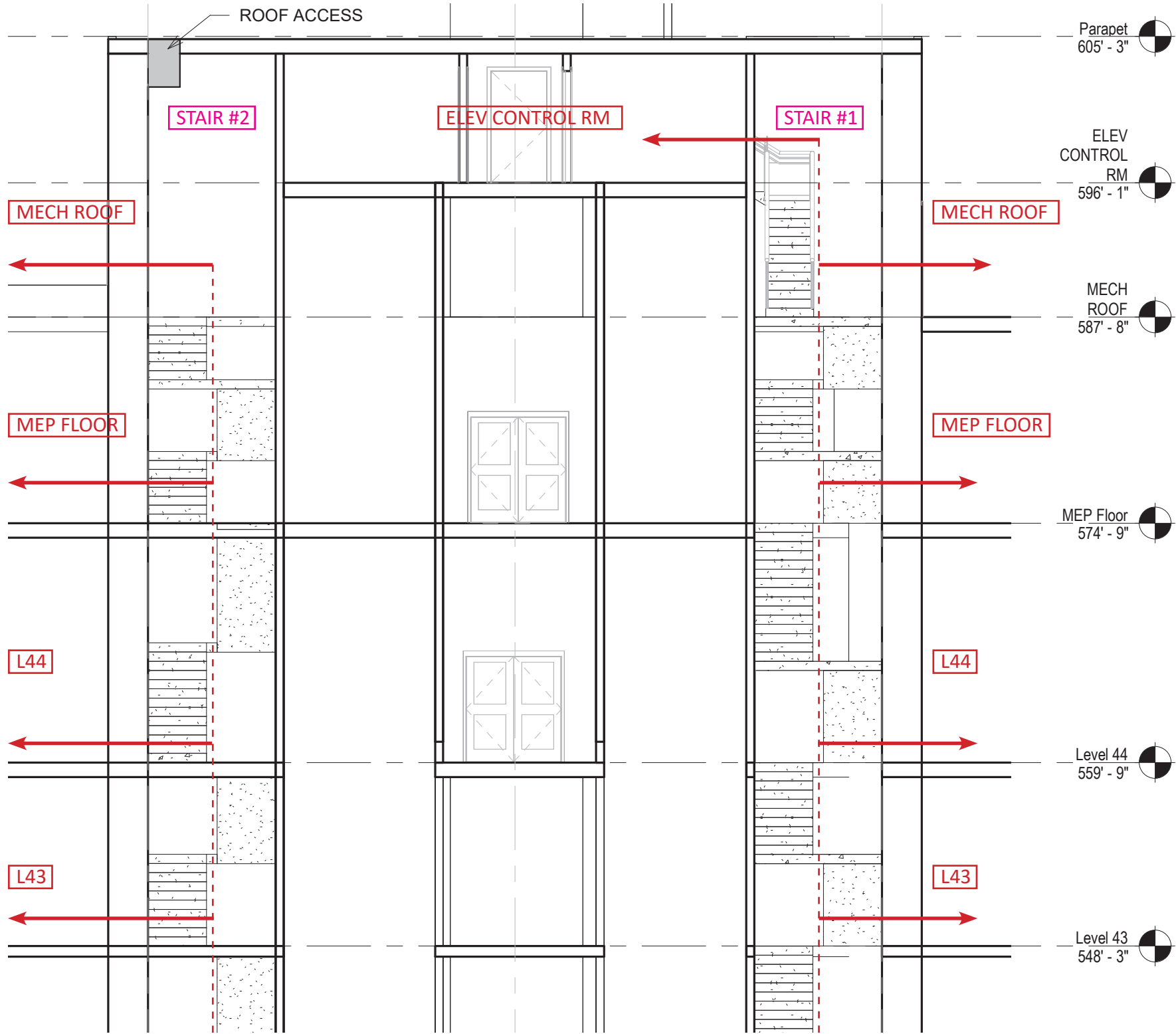
EX GRIFFIN EGRESS DOOR ● GRIFFIN FIREMAN ACCESS DOOR GRIFFIN EGRESS ROUTE
 EX SHERIDAN EGRESS DOOR ● SHERIDAN FIREMAN ACCESS DOOR SHERIDAN EGRESS ROUTE

TYPICAL PLAN FOR L2-L6

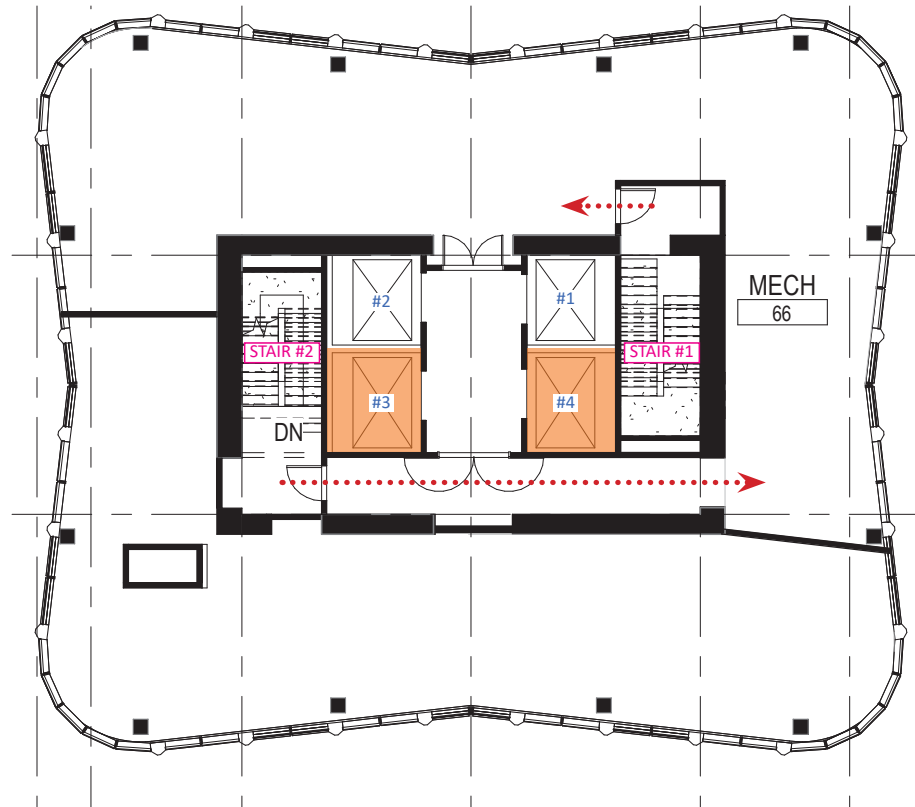


SECTION A-A

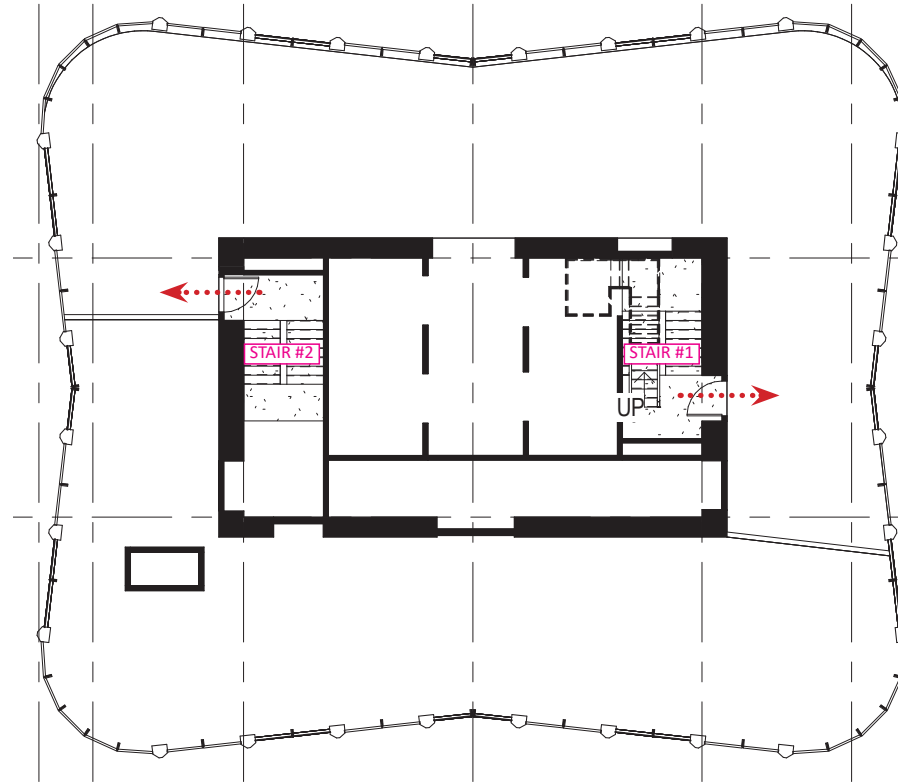
	FSAE	STRENCHER	AME	LEVEL STOPS	
				BOTTOM-TOP	DO NOT STOP @
ELEV #1				P7-ROOF	L1, L2.5, L3.5, L4.5
ELEV #2				P7-ROOF	L1, L2.5, L3.5, L4.5
ELEV #3	X	X	X	P7-ROOF	L1, L2.5, L3.5, L4.5
ELEV #4	X	X	X	P7-ROOF	L1, L2.5, L3.5, L4.5
ELEV #5				P1-L4.5	L1.5, L2, L3, L4



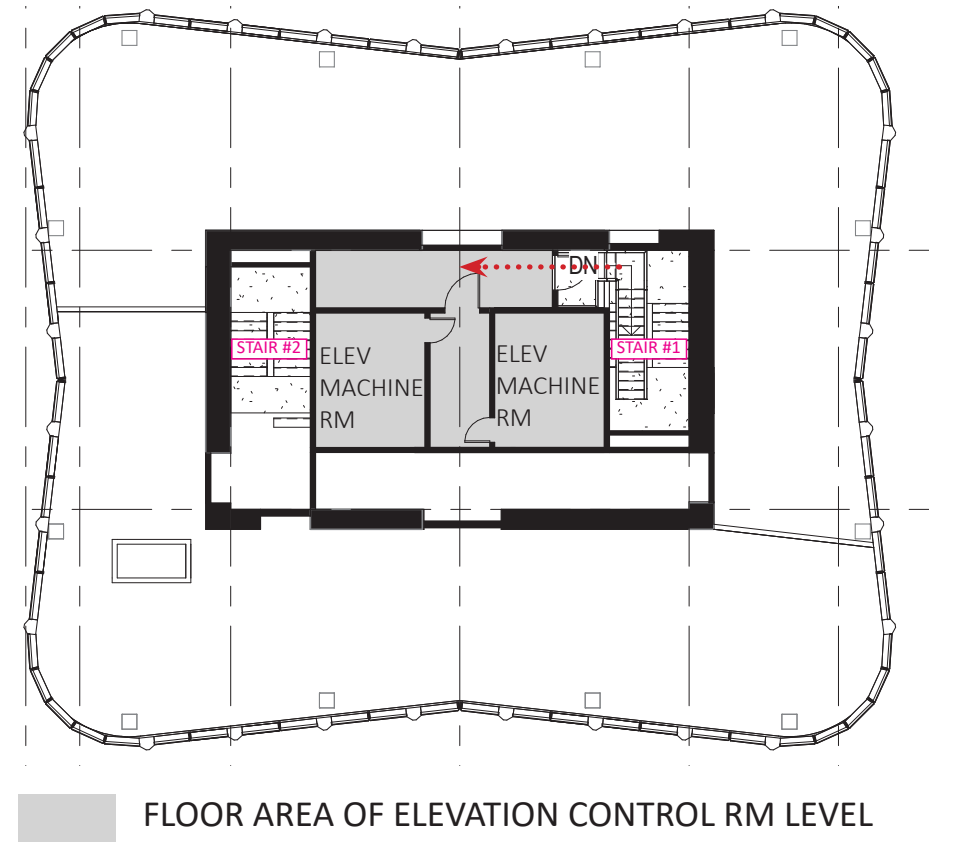
L43-PARAPET CORE SECTION



MECH FLOOR PLAN



MECH ROOF PLAN



ELEV CONTROL RM LEVELPLAN

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**

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.

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