**Date: [ ]**

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| **Project Information** | | **Applicant Information** | | |
| Project Name:  [ ] | | Contact Person:  [ ] | | |
| Project Address:  [ ] | | Contact Address:  [ ] | | |
| Construction Application/Permit: #  [ ] | | Contact Email:  [ ] | | |
| MUP Project: #  [ ] | | Contact Phone:  [ ] | | |
| **Conference Attendees** | | | | |
| **Name** | **Company** | | **Phone** | **Email** |
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| **Provide Brief Description of Project. Include Overall size, Number of stories Construction Type and Occupancies:** |

**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/dpd/codes/technical_codes/overview/) **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**](http://www.seattle.gov/sdci/permits/forms)

**High-rise Building Code Requirements - \* denotes Seattle amendment in section**

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| **Section 403 Highrise Buildings** | |
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| **403.1.1.1\***  **Presubmittal Conference** | ***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* |
| **403.1.1.2\***  **Smoke Control Presubmittal Conference** | ***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.* |
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| **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:**  [ ] |
| **Conference discussion & decisions:** | |
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| **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:*  *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.*  *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.*  *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.*  *See attached “Seattle Requirements for High-Rise Secondary Water Supply”* |
|  | **Proposal:**  [ ] |
| **Conference discussion & decisions:** | |
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| **403.3.2\***  **Water supply to required fire pumps.** | ***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.*  *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.* |
|  | **Proposal:**  [ ] |
| **Conference discussion & decisions:** | |
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| **403.4.2**  **Fire alarm systems** | ***Key Items:*** *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.* |
|  | **Proposal:**  [ ] |
| **Conference discussion & decisions:** | |
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| **403.4.4**  **Emergency voice/alarm communication systems** | **Key Items:** *An emergency voice/alarm communication system shall be provided in accordance with SFC Section 907.5.2.2.* |
|  | **Proposal:**  [ ] |
| **Conference discussion & decisions:** | |
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| **403.4.5**  **Emergency responder radio coverage** | ***Key Items:*** *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.* |
|  | **Proposal:**  [ ] |
| **Conference discussion & decisions:** | |
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| **403.4.6**  **Fire command (Center)** | ***Key Items:***  *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.* |
|  | **Proposal:**  [ ] |
| **Conference discussion & decisions:** | |
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| **403.4.8**  **Emergency power systems** | ***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.* |
|  | **Proposal:**  [ ] |
| **Conference discussion & decisions:** | |
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| **403.4.8.4\***  **Emergency power loads** | ***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.* |
|  | **Proposal:**  [ ] |
| **Conference discussion & decisions:** | |
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| **403.5.1\***  **Remoteness of interior exit stairways** | ***Key Item:*** *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.* |
|  | **Proposal:**  [ ] |
| **Conference discussion & decisions:** | |
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| **403.5.2**  **Additional exit stairway** | ***Key Items:*** *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.* |
|  | **Proposal:**  [ ] |
| **Conference discussion & decisions:** | |
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| **403.5.3\***  **Stairway door operation** | ***Key Items:*** *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.* |
|  | **Proposal:**  [ ] |
| **Conference discussion & decisions:** | |
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| **403.5.3.1\***  **Stairway communications system** | ***Key Items:*** *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.* |
|  | **Proposal:**  [ ] |
| **Conference discussion & decisions:** | |
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| **403.5.4\***  **Smoke control in exit stairways** | ***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.*  *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* |
|  | **Proposal:**  [ ] |
| **Conference discussion & decisions:** | |
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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:**  [ ] |
| **Conference discussion & decisions:** | |
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| **403.5.5**  **Luminous egress path markings** | ***Key Items:*** *Luminous egress path markings shall be provided in accordance with Section 1025.* |
|  | **Proposal:**  [ ] |
| **Conference discussion & decisions:** | |
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| **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:**  [ ] |
| **Conference discussion & decisions:** | |
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| **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:**  [ ] |
| **Conference discussion & decisions:** | |
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| **403.6.1\***  **Fire service access elevator** | ***Key Items:*** *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.* |
|  | **Proposal:**  [ ] |
| **Conference discussion & decisions:** | |
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| **403.8\***  **Emergency operational plan** | ***Key Items:*** *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.* |
|  | **Proposal:**  [ ] |
| **Conference discussion & decisions:** | |
| **Chapter 7** | |
| **712\***  **Vertical openings** | ***Key Items:*** *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.* |
|  | **Proposal:**  [ ] |
| **Conference discussion & decisions:** | |
| **CHAPTER 10, MEANS OF EGRESS** | |
| **Chapter 10\* General** | ***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.* |
| Code Alternate/ Modification    (form attached) | **Proposal:**  [ ] |
| **Conference discussion & decisions:** | |
| **CHAPTER 30, ELEVATORS** | |
| **3016.9\***  **Elevator operation on emergency power - recall** | ***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.* |
|  | **Proposal:**  [ ] |
| **Conference discussion & decisions:** | |

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| **3020.1\* & 3020.4\***  **Construction of Hoistways, and machine and control rooms** | ***Key Items:*** *Construction of hoistways and hoistway enclosures shall comply with ASME A17.1 Section 2.1 as amended.* |
|  | **Proposal:**  [ ] |
| **Conference discussion & decisions:** | |
| **OTHER** | |
| **Other** | *Describe any significant interpretation requests or special conditions you wish to address including any issues requiring a code alternate or code modification.* |
| Code Alternate/ Modification    (form attached) | **Proposal:**  [ ]  [ ]  [ ] |
| **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 beprovided 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 beprovided 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.

**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.

**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.