

CITY COUNCIL AGENDA ITEM
CITY OF SHORELINE, WASHINGTON

AGENDA TITLE:	Discussion of Ordinance No. 761 – Amending Chapter 15.05 of the Shoreline Municipal Code, Construction and Building Codes, and Adoption of Standard 130 of the National Fire Protection Association
DEPARTMENT:	Planning & Community Development
PRESENTED BY:	Ray Allshouse, Building Official
ACTION:	<input type="checkbox"/> Ordinance <input type="checkbox"/> Resolution <input type="checkbox"/> Motion <input checked="" type="checkbox"/> Discussion <input type="checkbox"/> Public Hearing

PROBLEM/ISSUE STATEMENT:

The issue before Council is the proposed adoption of standards and codes that will allow for regulation of Sound Transit Light Rail extension facilities to be constructed within the City along with the City’s circular revision of local amendments to the Construction and Building Codes. Both of these actions would be accomplished through adoption of proposed Ordinance No. 761 (Attachment A).

Shoreline Municipal Code Chapter 15.05, Construction and Building Codes, adopts the current editions of the national model codes by reference and adopts Shoreline-specific local amendments to each code. Recent changes to the model code language require that Shoreline update the specific local amendments to accommodate said changes in addition to associated revisions recommended by City and Fire Department staff. Proposed Ordinance No. 761 would also adopt and amend National Fire Protection Association (NFPA) Standard 130 for Fixed Guideway Transit and Passenger Rail Systems to facilitate the City’s regulation of the Lynnwood Link Light Rail Extension construction improvements within the City.

RESOURCE/FINANCIAL IMPACT:

There are no direct impacts to the City’s resources associated with the adoption of Proposed Ordinance No. 761. These Construction and Building Code amendments are intended to protect City resources by ensuring that impacts that can be attributed to the new light rail system are identified and addressed by Sound Transit.

RECOMMENDATION

No action is required; staff seeks Council policy direction on proposed Ordinance No. 761. Proposed Ordinance No. 761 is proposed for Council adoption on October 24, 2016.

Approved By: City Manager **DT** City Attorney **MK**

BACKGROUND

Before Council tonight is a discussion of Proposed Ordinance No. 761. This ordinance would amend Shoreline Municipal Code Chapter 15.05, Construction and Building Codes (Exhibit A), which adopts the current editions of the national model codes by reference and adopts Shoreline-specific local amendments to each code. Recent changes to the model code language require that Shoreline update the specific local amendments to accommodate these changes in addition to associated revisions recommended by City and Fire Department staff. Adoption of local amendments is proposed to ensure consistency with the Development Code and to accommodate the operational requirements of the Shoreline Fire Department.

Proposed Ordinance No. 761 would also adopt and amend National Fire Protection Association (NFPA) Standard 130 for Fixed Guideway Transit and Passenger Rail Systems to facilitate the City's regulation of the Lynnwood Link Light Rail Extension construction improvements within the City. Adoption of NFPA Standard 130 is proposed to codify the results of negotiations with Sound Transit staff setting regulations for new light rail facilities that will be constructed in the City.

DISCUSSION

Update of Remaining Existing Adopted Construction Codes

Proposed Ordinance No. 761 correlates the City's standing local amendments to the current editions of the model codes covered under the State Building Code and will include provisions to accurately align local adoption to action by the State Building Code Council on statewide amendments to these updated model codes. Also, consistent with past practice, local amendments to the fire code will reflect modifications as developed and agreed upon by the King County Zone One Fire Marshals, which includes the Shoreline Fire Marshal. In addition, adoption of selected additional residential model code appendices will be included to formally adopt standards currently applied as alternate means and methods of construction. By deliberately minimizing local amendments, the City will continue to remain a competitive environment for development.

Current Edition Adoption of the International Property Maintenance Code (IPMC)

Current local adoption of the property maintenance code is founded upon the 2009 edition of this model code. City codification of the other model construction codes invokes current edition adoption language based on actions of the State Building Code Council as part of the Washington State Building Code. The IPMC is not part of the Washington State Building Code but as part of the international family of codes, provides content that is consistent with related requirements. By adopting a most current edition provision, the City stands to benefit from nationally evolving technical standards without further action.

Staff has historically proposed adjustments to local requirements based on IPMC updates. Use of nationally-developed industry standards facilitates enforcement at the local level. For instance, the standard for overcrowding of living units is evolving as well as more specific provisions for protection from electrical shock, fire hazards and unsanitary conditions.

Codification of NFPA Standard 130 – Proposed Section 15.05.080 SMC

Proposed Ordinance No. 761 would also add a new section to the City’s Construction and Building Codes, Section 15.05.080 (Exhibit B). The International Fire Code does not specifically address fixed guideway rail systems. The National Fire Protection Association (NFPA) Standard 130 for Fixed Guideway Transit and Passenger Rail Systems includes standards for fire prevention, protection and suppression that are specific to light rail stations, garages and associated systems. Therefore, in collaboration with Sound Transit, the City and the Shoreline Fire Department worked together to modify the NFPA 130 Standards, as amended by the City of Bellevue, to use in the City of Shoreline, which would be codified as SMC 15.05.080.

COUNCIL GOAL(S) ADDRESSED

A portion of this item addresses City Council Goal No. 3: Prepare for two Shoreline light rail stations.

RESOURCE/FINANCIAL IMPACT

There are no direct impacts to the City’s resources associated with the adoption of Proposed Ordinance No. 761. These Construction and Building Code amendments are intended to protect City resources by ensuring that impacts that can be attributed to the new light rail system are identified and addressed by Sound Transit.

RECOMMENDATION

No action is required; staff seeks Council policy direction on proposed Ordinance No. 761. Proposed Ordinance No. 761 is proposed for Council adoption on October 24, 2016.

ATTACHMENTS

Attachment A: Ordinance No. 761

Attachment A, Exhibit A: Amended Shoreline Municipal Code Chapter 15.05, Construction and Building Codes

Attachment A, Exhibit B: New Section, Section 15.05.080, of Shoreline Municipal Code Chapter 15.05, Construction and Building Codes

ORDINANCE NO. 761

AN ORDINANCE OF THE CITY OF SHORELINE, WASHINGTON AMENDING SECTIONS 15.05.010, 15.05.040, 15.05.050, AND 15.05.070 OF SHORELINE MUNICIPAL CODE CHAPTER 15.05 CONSTRUCTION AND BUILDING CODES AND ADDING A NEW SECTION 15.05.080 TO CHAPTER 15.05 TO PROVIDE AMENDMENTS TO THE NFPA STANDARD 130 REGULATIONS FOR FIXED GUIDEWAY TRANSIT AND PASSENGER RAIL SYSTEMS.

WHEREAS, the City of Shoreline is a non-charter optional municipal code city as provided in Title 35A RCW, incorporated under the laws of the state of Washington and planning under the Growth Management Act, chapter 36.70A RCW; and

WHEREAS, Section 15.05.010 of the Shoreline Municipal Code (SMC) adopts by reference the current building and construction codes for the City of Shoreline, including the International Residential Code, as adopted by the Washington State Building Council, the International Fire Code, as adopted by the Washington State Building Council, and the 2009 International Property Maintenance Code; and

WHEREAS, these international codes provide model codes and standards used in the design, building, and compliance process for safe, sustainable, affordable, and resilient structures so as to ensure the public health, safety, and welfare; and

WHEREAS, SMC Section 15.05.010(A) is amended to include the International Existing Building Code and International Swimming Pool and Spa Code and SMC Section 15.05.010(I)'s reference to the Washington State Ventilation and Indoor Air Quality Code is deleted to ensure alignment with the statement amendments adopted by the Washington State Building Council which became effective on July 1, 2016; and

WHEREAS, SMC Section 15.05.040 sets forth the City's amendments to the International Residential Code; and

WHEREAS, updates to the SMC 15.05.040 amendments is needed to ensure alignment with the statewide amendments to this code which became effective on July 1, 2016; and

WHEREAS, SMC Section 15.05.050 sets forth the City's amendments to the International Fire Code; and

WHEREAS, updates to the SMC 15.05.040 amendments is needed to reflect modifications agreed upon by the King County Zone One Fire Marshals and were done in consultation with the Shoreline Fire Department; and

WHEREAS, SMC 15.05.010(K) adopts the 2009 International Property Maintenance Code and SMC Section 15.05.070 sets forth the City's amendments to the this code and

WHEREAS, SMC 15.05.010(K) needs to be amended to delete reference to the 2009 code and provide for incorporation of the most current version and SMC 15.05.070 needs to be amended to ensure alignment with the most current version of the code; and

WHEREAS, the international codes adopted by reference in SMC 15.05.010 do not specifically address the design or construction of light rail facilities; and

WHEREAS, the National Fire Protection Association (NFPA) Standard 130 was developed specifically to address life safety for passenger rail systems and their stations; and

WHEREAS, the City is the location of Sound Transit's Lynnwood Link Extension, with light rail lines and stations being located within the City thereby needing to provide for regulation of these facilities; and

WHEREAS, amendments to SMC 15.05.010 and the establishment of a new section will reflect the incorporation of NFPA Standard 130 and the City's specific amendments; and

NOW THEREFORE, the City Council of the City of Shoreline, Washington do ordain as follows:

Section 1. Amendment – SMC Title 15, Chapter 15.05. Sections 15.05.010 *Adoption of referenced codes*, 15.05.040 *International Residential Code amendments*, 15.05.050 *International Fire Code amendments*, and 15.05.070 *International Property Maintenance Code amendments* are hereby amended as set forth in Exhibit A.

Section 2. Amendment – New Section, SMC Title 15, Chapter 15.05. A new section, Section 15.05.080 *Standard for Fixed Guideway Transit and Passenger Rail Systems (NFPA 130) amendments*, as set forth in Exhibit B, is added to SMC Title 15, Chapter 15.05.

Section 3. Severability. If any one or more section, subsection, or sentence of this ordinance is held to be unconstitutional or invalid or unenforceable for any reason, such decision shall not affect the validity of the remaining portion of this ordinance and the same shall remain in full force and effect.

Section 4. Corrections by City Clerk or Code Reviser. Upon approval of the City Attorney, the City Clerk and the code reviser are authorized to make necessary corrections to this ordinance, including the correction of clerical errors; references to other local, state or federal laws, codes, rules, or regulations; or ordinance numbering and section/subsection numbering.

Section 5. Publication and Effective Date. A summary of this Ordinance consisting of the title shall be published in the official newspaper. This Ordinance shall take effect five days after publication.

PASSED BY THE CITY COUNCIL ON 24th DAY OF OCTOBER, 2016.

Mayor Christopher Roberts

ATTEST:

APPROVED AS TO FORM:

Jessica Simulcik-Smith
City Clerk

Margaret King
City Attorney

Date of Publication: , 2016
Effective Date: , 2016

Attachment A - EXHIBIT A
Ordinance No. 761

Reviser’s Note: Underlined text denotes new language; ~~Strikethrough~~ text denotes deleted language.

15.05.010 Adoption of referenced codes is amended as provided below:

The City of Shoreline hereby adopts the following codes for the purpose of establishing rules and regulations for the construction, alteration, removal, demolition, equipment, use and occupancy, location and maintenance of buildings, premises and structures, including permits and penalties:

A. The current edition of the International Building Code, International Existing Building Code and International Swimming Pool and Spa Code, published by the International Code Council, Inc., as adopted by the Washington State Building Code Council in Chapter 51-50 WAC, as now or hereafter amended.

B. The current edition of the International Residential Code published by the International Code Council, Inc., as adopted by the Washington State Building Code Council in Chapter 51-51 WAC, as now or hereafter amended. The following appendices are specifically adopted:

- 1. Appendix A, Sizing and Capacities of Gas Piping
- 2. Appendix B, Sizing of Venting Systems Serving Appliances
- 3. Appendix H, Patio Covers

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~~I. The current edition of the Washington State Ventilation and Indoor Air Quality Code, as adopted by the Washington State Building Code Council in Chapter 51-13 WAC, as now or hereafter amended. The 2014 NFPA 130 Standard for Fixed Guideway Transit and Passenger Rail Systems,, published by the National Fire Protection Association, as now or hereafter amended.~~

...

K.. The ~~2009~~current edition of the International Property Maintenance Code published by the International Code Council as hereafter amended, to be effective on the first day of July in the

year immediately following the edition year, except that the following sections are not adopted by reference and are expressly deleted:

Section 103	Department of Property Maintenance Inspection
Subsection 106.2	Notice of violation
Subsection 106.3	Prosecution of violation
Subsection 106.4	Violation penalties
Subsection 106.5	Abatement
Section 107	Notice and Orders
Subsection 108.7	Record
Subsection 109.4	Emergency repairs
Subsection 109.5	Costs of emergency repairs
Subsection 109.6	Hearing
Subsection 110.2	Notices and orders
Subsection 110.4	Salvage materials
Section 111	Means of Appeal
Section 112	Stop Work Order
Subsection 302.4	Weeds
Subsection 304.14	Insect screens

Section 308	Rubbish and Garbage
Subsection 602.4	Occupiable work spaces
Subsection 604.3.1	Abatement of electrical hazards associated with water exposure
Subsection 604.3.2	Abatement of electrical hazards associated with fire exposure

15.05.040 *International Residential Code amendments* is amended as provided below:

C. Table R301.2(1), Climatic and Geographical Design Criteria, is amended to read as follows:

Table R301.2(1)	
Climatic and Geographical Design Criteria	
Ground Snow Load	25 lbs/sq ft
Wind Design	
Speed ^d	85 mph
Topographic effects ^k	No
<u>Special Wind region^l</u>	<u>No</u>
<u>Wind-borne debris zone^m</u>	<u>No</u>
Seismic Design Category ^f	D2
Subject to damage from	
Weathering ^a	Moderate
Frost Line Depth ^b	12"
Termites ^c	Slight to Moderate

Table R301.2(1)
Climatic and Geographical
Design Criteria

Decay	Slight to Moderate
Winter Design Temp ^e	27 degrees
Ice Shield Underlayment Required ^h	No
Flood Hazards ^g	m-o , n
Air Freeze Index ⁱ	113
Mean Annual Temp ^j	53 degrees

~~m n~~. Date of ordinance adoption: March 4,
1997.

~~n-o~~. Map effective King County Flood
Insurance Study date: May 15, 1995
November 6, 2010.

15.05.050 *International Fire Code amendments* is amended as provided below:

A. Section 102.7 is amended to read as follows:

102.7 Reference codes and standards. When allowed by the *fire code official*, editions of standards not herein referenced may be utilized provided the entire standard is utilized.

A. Section 102.7 is amended to read as follows:

102.7 Reference codes and standards. When allowed by the *fire code official*, editions of standards not herein referenced may be utilized provide the entire standard is utilized.

~~A.B.~~ **A. New Section 102.7.3 is added to read as follows:**

102.7.3 The *fire code official* is authorized to approve an alternative standard where the fire code official determines that the alternate standard, applied in its entirety, complies with the intent of the provisions of this code, and that the alternate standard is, for the purpose intended, at least the equivalent of the those listed in Chapter 80 in effectiveness, quality, fire resistance, durability and safety.

~~B.C.~~ **B. Sections 104.1, 104.10.1, and 104.11.2 are amended to read as follows:**

1. 104.1 General. The City Manager or his/her designee is hereby authorized to enforce the provisions of this code, and to adopt policies, procedures, rules and regulations in order to clarify the application of its provision. Wherever this code refers to the fire code official it shall be construed to mean the City Manager or his/her designee. Such interpretations, policies, procedures, rules and regulations shall be in compliance with the intent and purpose of this code and shall not have the effect of waiving requirements specifically provided for in this code.
2. 104.10.1 Assistance from other agencies. Police and other enforcement agencies shall have authority to render necessary assistance in the investigation of fires or the enforcement of this code when requested to do so by the fire chief or his/her designee.
3. 104.11.2 Obstructing operations. No person shall obstruct the operations of the fire department in connection with extinguishment, control, or investigation of any fire, or actions relative to other emergencies, or disobey any lawful command of the fire chief or officer of the fire department in charge of the emergency, or any part thereof, or any lawful order of a police officer assisting the fire department.

D. Section 105.1.2 is amended to read as follows:

105.1.2 Types of permits. There shall be two types of permits as follows:

1. Operational permit. An operational permit allows the applicant to conduct an operation or a business for which a permit is required by Section 105.6 for either:

a. A prescribed period.

b. Until renewed or revoked.

1.1. Operational permit fees. Fees may be charged annually for each type of operational permit. Fees shall be established by the *fire code official*.

2. Construction permit. A construction permit allows the applicant to install or modify systems and equipment for which a permit is required by Section 105.7.

2.1. Construction permit fees. Fees will be assessed for each construction permit issued under this Code as established by Chapter 3.01 SMC.

~~C. C. New Sections 105.1.4 and 105.1.5 are added to read as follows:~~

~~1. 105.1.4 Construction permit fees. Fees will be assessed for each construction permit issued under this Code as established by Chapter 3.01 SMC.~~

~~2. 105.1.5 Operational permit fees. Fees may be charged annually for each type of operational permit. Fees shall be established by the fire code official.~~

~~D. New Section 105.6.27.1 is added to read as follows:~~

~~105.6.27.1 Temporary LP-gas. An operational permit is required for temporary use of LP-gas over 200 gallons.~~

E. Section 105.6 is amended to read as follows and New Section 105.6.49 is added to read as follows:

1. 105.6. Required operational permits. The fire code official is authorized to issue operational permits for the operations set forth in Sections 105.6.1 through 105.6.49.

2. 105.6.59. Positive alarm sequence. An operational permit is required to operate a Positive Alarm Sequence (PAS) Account as prescribed in NFPA 72.

F. Section 105.7 is amended to read as follows and New Section 105.7.19 is added to read as follows:

1. 105.7. Required construction permits. The fire code official is authorized to issue construction permits for work as set forth in Sections 105.7.1 through 105.7.19.

2. 105.7.19. Emergency Power Supply System. A construction permit is required for installation of Emergency Power Supply System required by Section 604.

~~E. New Section 105.7.17 is added to read as follows:~~

~~105.7.17 Emergency Power Supply System. A construction permit is required for the installation of Emergency Power Supply Systems required by Section 604.~~

~~D.G.~~ **F. Section 107.5-6 is amended to read as follows:**

107.5-6 Overcrowding. Overcrowding or admittance of any person beyond the approved capacity of a building or a portion thereof shall not be allowed. The fire code official, upon finding any overcrowding conditions or obstructions in aisles, passageways or other means of egress, or upon finding any condition which constitutes a life safety hazard, shall be authorized to direct actions be taken to reduce the overcrowding or to cause the event to be stopped until such condition or obstruction is corrected.

~~E.H.~~ **G. Sections 109.4 and 111.4 are hereby repealed.**

~~F.I.~~ **H. Section 307.1.1 is amended to read as follows:**

307.1.1 Prohibited open burning. Open burning shall not be conducted at any time in compliance with a permanent ban on open burning established by the Puget Sound Air Pollution Control Agency in September of 1992.

For air quality and burn ban status information and regulations, contact the Puget Sound Clean Air Agency at www.pscleanair.org or (206) 689-4088.

~~G.J.~~ **I. Section 308.3 is amended to read as follows:**

308.3 Group A occupancies. Open-flame devices shall not be used in a Group A occupancy.

Exceptions:

1. Open-flame devices are allowed to be used in the following situations, provided approved precautions are taken to prevent ignition of a combustible material or injury to occupants:

1.1. Where necessary for ceremonial or religious purposes in accordance with Section 308.1.7.

1.2. On stages and platforms as a necessary part of a performance in accordance with Section 308.3.2.

1.3. Where candles on tables are securely supported on substantial noncombustible bases and the candle flames are protected.

2. Heat-producing equipment complying with Chapter 6 and the International Mechanical Code.

3. Gas lights are allowed to be used provided adequate precautions satisfactory to the fire code official are taken to prevent ignition of combustible materials.

4. Where approved by the fire code official.

~~H.K.~~ **Section 314.4 is amended to read as follows:**

314.4 Vehicles. Liquid- or gas-fueled vehicles, fueled equipment, boats or other motorcraft shall not be located indoors except as follows:

1. Batteries are disconnected.
2. Fuel in fuel tanks does not exceed one-quarter tank or 5 gallons (19 L) (whichever is least).
3. Fuel tanks and fill openings are closed and sealed to prevent tampering.
4. Vehicle, fueled equipment, boats or other motorcraft equipment are not fueled or defueled within the building.

~~L. J.~~ **New Section 315.3.2.1 is added to read as follows:**

315.3.2.1 Storage under stairways. Storage is prohibited under exit stairways. Exception: Enclosures under stairways in accordance with Sections ~~1009.9.34~~1011.7.3 or 1011.7.4 as applicable.

~~I.M.~~ **K. Section 501.1 is amended to read as follows:**

501.1 Scope. Fire service features for buildings, structures and premises shall comply with this chapter. The requirements in this chapter may be modified by the fire code official if other approved fire-protection features are provided.

~~J.N.~~ **L. Section 503.1 is amended to read as follows:**

503.1 Where required. Fire apparatus access roads shall be provided and maintained in accordance with Sections 503.1.1 through 503.1.3 and/or local street, road and access standards as determined by the fire code official.

~~K.O.~~ **M.** State amendments for Sections 503.1, 503.1.1, 503.1.2, 503.1.3, 503.2, 503.3, 503.4, and 503.4.1 are hereby repealed.

P. New section 503.1.2.1 is added to read as follows:

503.1.2.1 Access roads. Access roads can be modified with approval of the fire code official.

Q. Section 503.2.5 is amendment to read as follows:

503.2.5 Dead ends. Dead-end fire apparatus access roads in excess of 150 feet (45 720 mm) in length shall be provided with an approved area for turning around fire apparatus., or as modified per the fire code official.

~~L.R.~~ **N.** Section 503.2.7 is amended to read as follows:

503.2.7 Grade. The grade of the fire apparatus access road shall be a 15 percent maximum grade unless approved by fire code official.

~~M.S.~~ **O.** Sections 507.3 and ~~507.5~~ are is amended to read as follows:

1. 507.3 Fire flow. Fire flow requirements for buildings or portions of buildings and facilities shall be determined in accordance with Sections 507.3.1 through 507.3.6.

Exception:

Fire Flow is not required for structures under 500 square feet with a B, U or R-1 occupancy where structures are at least 30 feet from any other structure and are used only for recreation.

2. 507.3.1 Minimum residual pressure. All required fire flow, either temporary or permanent, shall not create a minimum residual pressure in the public or private water system of less than 20 psi. (WAC 246-290-230)

3. 507.3.2 Required fire flow. The required quantity and demand duration of water shall be equal to the calculated fire flow for the greatest hazard or protected risk in the proposed development, and shall be determined by the fire code official using Table B105.1 Appendix B of the International Fire Code as the required baseline fire flow.

Exceptions:

A. The fire code official may increase the fire-flow requirements where conditions indicate an unusual susceptibility to group fires, conflagrations, or other fire hazard to the community.

B. The minimum fire flow requirements for one- and two-family dwellings having a fire-flow calculation area of 3,600 square feet or less, shall be 1,000 gallons per minute.

C. Up to two (2) Group R, Division 3 occupancy buildings less than 2,500 gross square feet (including attached garages) shall be exempt from this section.

4. 507.3.3 Infrastructure calculations. Where the existing fire flow on a system is inadequate, or a new system is proposed, engineering design calculations or an approved flow test when allowed by the water purveyor may be required to verify fire flow.

5. 507.3.4. Where the required fire flow exceeds the available fire flow, the installation or enhancement of automatic fire sprinkler and/or automatic fire detection and alarm systems may be used in conjunction with Section 508.3.5 when approved by the fire code official.

6. 507.3.5 Credit for automatic sprinkler systems. Fire flow credit for automatic sprinkler protection shall be granted only when the entire structure is protected by an approved automatic sprinkler system, designed in accordance with NFPA-13 or NFPA-13R, and for single family dwellings less than 4,800 sq. ft. in total area, designed in accordance with NFPA-13D.

507.3.5.1 Credit toward fire flow requirements shall be granted by the fire code official where sprinklers are installed:

1. For the purposes of area or height increases as specified in the International Building Code.

2. For the purposes of one-hour fire resistive substitution as specified in the International Building Code.

3. In Group R, Division 3 occupancies, as a substitute for fire apparatus access.

507.3.5.2 There shall be no additional credit toward fire flow requirements by installing an automatic sprinkler system where the system is required by the International Building or Fire Codes to protect hazardous storage or processes, or in any Group H or I occupancy.

507.3.5.3 Fire flow credit allowed per type of sprinkler system:

1. The reduction allowed for a NFPA 13 designed system shall be 50 percent.
2. The reduction allowed for a NFPA 13 R designed system shall be 30 percent.
3. The reduction allowed for an NFPA 13 D designed system shall be 30 percent.

4. The reduction allowed may be increased by the fire code official when the design area or density has been increased over the minimums set forth by the applicable NFPA standard. This provision only applies to light hazard occupancies.

7. 507.3.6 Fire-flow calculation area. The area used to calculate fire flow shall be determined in accordance with this section.

507.3.6.1 The fire-flow calculation area shall be the total floor area of all floor levels within the exterior walls, and under the horizontal projections of the roof of a building.

507.3.6.2 Portions of buildings that are separated by four-hour fire walls without openings, constructed in accordance with the International Building Code, are allowed to be considered as separate fire-flow calculation areas.

507.3.6.3 The fire-flow calculation area of a building constructed of Type IA and Type IB construction shall be the area of the three largest successive floors.

Exception: Fire-flow calculation area for open parking garages shall be determined by the area of the largest floor.

T. Section 507.5 is amended to read as follows:

1. ~~8.~~ 507.5 Fire hydrant systems. Fire hydrant systems shall comply with Sections 507.5.1 through 507.5.7.
2. 507.5.1 Where required. Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 400 feet from any hydrant required to meet the building's fire flow, on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, onsite fire hydrants and mains shall be provided where required by the fire code official.

Exceptions:

1. For Group R-3 and Group U occupancies, the distance requirement shall be 500 feet. One and two family dwellings located beyond the 500 feet are required to install a NFPA 13D sprinkler system.

2. For buildings equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1, or 903.3.1.2, or 903.3.1.3 the distance requirement shall be 600 feet (183 m).

507.5.1.1 Hydrant spacing and distribution. Fire hydrants installed for new development shall be located as per fire flow requirements, approved by the fire code official and comply with sections 507.5.1.1.1 through 507.5.1.1.5.

507.5.1.1.1 Buildings of less than 2500 gpm. Buildings having a required fire flow less than two thousand five hundred (2500) gpm may have fire hydrants on one side of the building only.

507.5.1.1.2 Buildings of 2500 gpm and less than 3500 gpm. Buildings having a required fire flow of two thousand five hundred (2500) gpm or more and less than three thousand five hundred (3500) gpm shall have hydrants served by a main that loops the building or complex of buildings and reconnects back into a distribution supply main in a separate location.

Exception: Where property lines, topography or other features prevent fire department vehicle access to one or more sides of a building or complex of buildings, this requirement may be waived if suitable fire protection features as approved by the fire code official are installed on the premises.

507.5.1.1.3 Buildings of 3500 gpm or more. Buildings having a required fire flow of three thousand five hundred (3500) gpm or more shall have hydrants served by a main that loops the building or complex and that is served from two directions or two sources of water supply.

507.5.1.1.4 Distance from buildings. For other than hazardous conditions, fire hydrants shall be located at least fifty (50) feet from the building or buildings they serve. When the materials or processes in a building or complex of buildings constitute a hazardous condition as determined by the fire code official, hydrants shall be located no closer than eighty (80) feet from the building.

Exception: Where property lines, topography or other features prevent this spacing, fire hydrants may be located closer to the building or buildings if suitable safeguards as approved by the fire code official are provided to protect fire equipment and fire fighters using the hydrant.

507.5.1.1.5 Arterials. Where a project site is located on a divided or primary arterial (traffic count of more than 20,000 vehicles per day), required hydrants shall be located on the same side of the divided or primary arterial as the project.

3. ~~9.~~ 507.5.4 Obstruction. Posts, fences, vehicles, growth, trash, storage and other materials or objects shall not be placed or kept near fire hydrants, fire department inlet connections or fire protection system control valves in a manner that would prevent such equipment or fire hydrants from being immediately discernible. There shall be no parking of motor vehicles, refuse containers or other obstructions within fifteen (15) feet of a hydrant measured along

the street or curb from a point perpendicular to the hydrant. The fire department shall not be deterred or hindered from gaining immediate access to fire protection equipment or fire hydrants. Paved access to fire hydrants shall be maintained to accommodate fire fighting apparatus, and to prevent damage to landscaping and pavement when the fire hydrant is being tested at its full flow.

~~10.~~ 507.5.4.1 Marking. Paved areas within the vicinity of a hydrant shall be permanently marked by painting the words “NO PARKING” and striping as approved by the fire code official. Fire hydrants located on private property shall be marked with an approved, reflective hydrant marker provided by the property owner placed in the street, alley, fire lane or access route in a location specified by the fire code official.

~~N.U.~~ **P. New Section 507.5.7 is added to read as follows:**

507.5.7 Number of fire hydrants required. The number of hydrants required for a building or complex of buildings shall be based on the formula:

Number of hydrants = required fire flow divided by 1500 gpm.

Fractions equal to or greater than one-half (1/2) shall be rounded up to the next higher whole number. Fractions less than one-half (1/2) shall be dropped.

Exception: Where actual fire flow tests performed in an approved manner when allowed by the water purveyor show higher flows exist.

~~Q.V.~~ **Q. Section 510 is amended to read as follows:**

510.1 Emergency responder radio coverage. ~~All new buildings shall have A~~ approved radio coverage for emergency responders shall be provided with buildings meeting any of the following conditions: within the building installed in accordance with Section 510 of this code and with applicable provisions of NFPA 72, National Fire Alarm Signaling Code. This section shall not require improvement of the existing public safety communication system.

1. There are more than five stories above grade plane (as defined by the International Building Code, Section 202;

2. The total building area is 50,000 square feet or more;

3. The total basement area is 10,000 square feet or more; or

4. There are floors used for human occupancy more than 30 feet below the finish floor of the lowest level of exit discharge.

Radio coverage is based upon the existing coverage levels of the public safety communication systems of the jurisdictions at the exterior of the building. This section shall not require improvements of the existing public safety communication system.

Exceptions:

~~1. Buildings and area of buildings that have minimum radio coverage signal strength levels of the King County Regional 800 MHz Radio System within the building in accordance with Section 510.4.1.~~

~~2. Buildings constructed primarily of wood frame that do not have storage or parking areas extending more than one (1) level below grade.~~

~~3. Buildings thirty five (35) feet high (as defined by the International Building Code, Section 502) or less that do not have below grade storage or parking areas extending more than one (1) level below grade.~~

~~Should construction that is thirty five (35) feet high or less include subterranean storage or parking, then this ordinance shall apply only to subterranean areas.~~

~~4. One and two family dwellings and townhouses.~~

510.2 Emergency responder radio coverage in existing buildings. Existing buildings shall be provided with approved radio coverage for emergency responders as required in ~~Chapter 14~~SMC 15.05.050.

510.3 Permits required. ~~An construction-operational permit for the installation of or modification to an emergency responder coverage system and related equipment is required as specified in Section 105.7.5. to operate a building radio system in accordance with SMC 15.05.050. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.~~

~~510.4 Technical requirements. Systems, components, and equipment required to provide an emergency responder radio coverage system shall comply with Section 510.4.1 through 510.4.2.5.~~

~~510.4.1 Radio signal strength. The building shall be considered to have acceptable emergency responder radio coverage when signal strength measurements in 95 percent of all areas of the~~

~~building and 99 percent in elevators (measured at the primary recall floor), stair shafts, and fire command centers meet the signal strength requirements in Sections 510.4.1.1 and 510.4.1.2.~~

~~510.4.1.1 Minimum signal strength into the building. A minimum signal strength of 95 dBm shall be receivable within the building.~~

~~510.4.1.2 Minimum signal strength out of the building. A minimum signal strength of 95 dBm shall be received by the agency's radio system when transmitted from within the building.~~

~~510.4.2 System design. The emergency responder radio coverage system shall be designed in accordance with Sections 510.4.2.1 through 510.4.2.5.~~

~~510.4.2.1 Amplification systems allowed. Buildings and structures which cannot support the required level of radio coverage shall be equipped with the following:~~

- ~~1. A radiating cable system, and/or,~~
- ~~2. An internal multiple antenna system with FCC-certificated bi-directional 800 MHz amplifiers, or~~
- ~~3. Systems otherwise approved by the City radio system manager in order to achieve the required adequate radio coverage.~~

~~510.4.2.2 Frequency range. The frequency range which must be supported shall be 806 MHz to 824 MHz and 851 MHz to 869 MHz and such other frequencies as determined by the Regional Radio System operator in all areas of the building.~~

~~510.4.2.3 Power supply. Power supplies shall conform with NFPA 72, Section 10.5 Power Supplies.~~

~~510.4.2.3.1 Secondary power. If any part of the installed system or systems contains an electrically powered component, the installed system or systems shall be provided with an independent battery system or an emergency generator capable of operating for a period of at least twenty-four (24) hours without external power input. The battery system shall automatically charge in the presence of external power input.~~

~~510.4.2.4 Signal booster requirements. If used, signal boosters shall meet the following requirements:~~

1. All active signal booster components shall be contained in a National Electrical Manufacture's Association (NEMA) 4, IP66-type waterproof cabinet or equivalent.

2. The battery system shall be contained in a NEMA 4, IP66-type waterproof cabinet or equivalent.

3. The system shall include automatic alarming of malfunctions of the signal booster and battery system. Any resulting trouble alarm shall be automatically transmitted to an approved central station ~~or proprietary supervising station as defined in NFPA 72 or, when approved by the fire code official, shall sound an audible signal at a constantly attended location.~~

4. Equipment shall have FCC certification prior to installation.

~~5. Signal boosters must be equipped with filters that reject adjacent frequencies in addition to the multi-band pass filters.~~

~~510.4.2.5 Additional frequencies and change of frequencies. The building owner shall modify or expand the frequency range at their own expense in the event frequency changes are required by the FCC or additional frequencies are made available by the FCC. Prior approval of a public safety radio coverage system on previous frequencies does not exempt this requirement.~~

~~Point of information: System designers should be aware that re-banding (i.e. Nextel) is currently well along making available the entire 800 MHz spectrum as well as portions of the 700 MHz band for public safety and equipment must be capable of supporting these and other spectrum bands. See www.FCC.gov for additional information.~~

~~510.5 Installation requirements. The installation of the emergency responder radio coverage system shall be in accordance with Sections 510.5.1 through 510.5.4.~~

~~510.5.1 Approval prior to installation. No amplification system capable of operating on frequencies used by the Regional 800 MHz Radio System shall be installed without prior coordination and approval of the radio system licensee (Eastside Public Safety Communications Agency, www.epsea.com, (425) 556-2515), and any such system must comply with any standards adopted by the King County Regional Communications Board.~~

~~510.5.2 Minimum qualifications of personnel. The system designer, lead installation personnel, and personnel conducting radio system tests shall be qualified to perform the work.~~

~~Design documents and all tests shall be documented and signed by a person in possession of a current FCC General Radio Telephone Operator License and a certificate or certification issued by one (1) of the following:~~

- ~~1. Associated Public Safety Communications Officials International (APCO).~~
- ~~2. National Association of Business and Education Radio (NABER).~~
- ~~3. Personal Communications Industry Association (PCIA).~~
- ~~4. Manufacturer of the equipment being installed.~~

510.5-3 Acceptance test procedure. Acceptance testing for emergency responder radio amplification system is required, upon completion of installation.

It is the building owner's responsibility to have the radio system tested by qualified personnel to ensure a minimum of 95 percent two-way coverage on each floor of the building.

~~Point of information. A certificate of occupancy will not be issued for any structure if the building fails to comply with these provisions.~~

A report shall be submitted to the Shoreline Fire Department at the conclusion of acceptance testing containing a floor plan and the signal strengths at each location tested and other relevant information. A representative of the Shoreline Fire Department may oversee the acceptance test. Acceptance testing is also required whenever changes occur to the building that would materially change the original field performance test. The test procedure shall be conducted as follows:

1. Each floor of the building shall be divided into a grid of approximately forty (40) equal test areas.

2. Testing shall use a two (2) watt, portable transceiver with speaker/microphone and flexible antenna (or any calibrated device which will produce signal levels useable by the prescribed portable radio). Field strength testing instruments must have been calibrated within one (1) year of the date of the acceptance test. Field strength testing instruments must be of the frequency selective type incorporating a flexible antenna similar to the ones used on the hand held transceivers. The City radio system manager may designate alternate methods of measuring the signal level, which satisfy appropriate levels of public safety coverage.

3. A maximum of two (2) nonadjacent areas will be allowed to fail the test.

4. In the event that three (3) of the areas fail the test, the floor may be divided into eighty (80) equal test areas in order to be more statistically accurate. In such event, a maximum of four (4) nonadjacent test areas will be allowed to fail the test. ~~After the eighty (80) area test, if~~ the system ~~continues to fail the 80-area test, the building owner shall have~~ the system shall be altered to meet the 95 percent coverage requirement.

5. A ~~spot located~~ test location approximately in the center of ~~a grid~~ each test area ~~will~~ shall be selected for the test, with the radio enabled ~~then the radio will be keyed~~ to verify two-way communication to and from the outside of the building through the Regional 800 MHz Radio System. Once the ~~spot test location~~ has been selected, the location shall represent the entire test area. Failure in the selected test location shall not be considered failure of the test area. Additional test locations shall prospecting for a better spot within the grid area is not be permitted.

6. The gain values of all amplifiers shall be measured and the test measurement results shall be kept on file with the building owner so that the measurements can be verified during annual tests. In the event that the measurement results become lost, the building owner shall be required to rerun the acceptance test to reestablish the gain values.

7. As part of the installation, a spectrum analyzer or other suitable test equipment shall be utilized to ensure spurious oscillations are not being generated by the subject signal booster. This test shall be conducted at time of installation and subsequent annual inspections.

~~Point of information. While the foregoing implies manual measurement and recording, automated testing and recording is certainly permitted so long as a report can be produced documenting the signal strength (or average) in each test square.~~

~~510.5.4 FCC Compliance. The emergency responder radio coverage system installation and components shall also comply with all applicable federal regulations including, but not limited to, FCC 47 DFR Part 90.219.~~

~~510.5.1 Approval prior to occupancy. A certificate of occupancy will not be issued to any structure if the building fails to comply with SMC 15.05.050.~~

510.6 Maintenance. The emergency responder radio coverage system shall be maintained operational at all times in accordance with Sections 510.6.1 through 510.6.3.

510.6.1 Testing and proof of compliance. The emergency responder radio coverage system shall be inspected and tested annually, or ~~whenever where~~ structural changes occur to the building, including additions or remodels, that would materially change the original field performance tests. ~~by a consultant approved by the fire code official. The performance test shall include at minimum a floor plan and the signal strength in various locations of the building.~~

Testing shall consist of the following:

1. In-building coverage test as described in Section 510.5.3.

Exception: Group R. occupancy annual testing is not required within dwelling units.

2. Signal boosters shall be tested to ensure that the gain is the same as it was upon initial installation and acceptance.

3. Backup batteries and power supplies shall be tested under load of a period of one (1) hour to verify that they will properly operate during an actual power outage. If within the one- (1) hour test period the battery exhibits symptoms of failure, the test shall be extended for additional one-(1) hour periods until the integrity of the battery can be determined.

4. All other active components shall be checked to verify operation within the manufacturer's specifications.

5. At the conclusion of the testing, a report, which shall verify compliance with Section 510.5.3, shall be submitted to the fire code official ~~no later than January 30 of each year.~~

~~510.6.2 Additional frequencies and change of frequencies. The building owner shall modify or expand the frequency range at their own expense in the event frequency changes are required by the FCC or additional frequencies are made available by the FCC. Prior approval of a public safety radio coverage system on previous frequencies does not exempt this requirement.~~

~~510.6.2 Field testing. Agency Police and fire personnel shall, at any time, have the right to enter onto the property at any reasonable time to conduct their own field testing to verify be certain that the required level of radio coverage is present.~~

510.6.3 Identification. The emergency radio coverage system shall be identified by a sign located on or near the fire alarm control panel stating "This building is equipped with an Emergency Responder Radio Coverage System."

~~510.6.4 Field testing. Police and fire personnel shall, at any time, have the right to enter onto the property to conduct its own field testing to be certain that the required level of radio coverage is present.~~

~~P.W.~~ **Sections 604.1, 604.1.1 and 604.1.4 are amended to read as follows:**

1. 604.1 General. Emergency power systems and standby power systems required by this code shall comply with the International Building Code chapter 27 as amended by the City of Shoreline.

2. 604.1.1 Stationary Backup or secondary generators. When backup or secondary power generators are required for Group I and R occupancies, emergency power is required.

3. 604.1.4 Load duration. Emergency power systems shall provide an 8-hour run time for emergency power.

~~Q.X.~~ **R. Section 803.1 is amended to read as follows:**

803.1 General. The provisions of Section 803.1.1 through 803.1.3 shall be applicable to all occupancies.

~~R.Y.~~ **S. New Section 803.1.3 is added to read as follows:**

803.1.3 Atrium furnishings. Atrium furnishings shall comply with Sections 803.1.3.1 and 803.1.3.2.

803.1.3.1 Potential heat. Potential heat of combustible furnishings and decorative materials within atria shall not exceed 9,000 Btu per pound (20,934 J/g) when located within an area that is more than 20 feet (6,096 mm) below ceiling-level sprinklers.

803.1.3.2 Decorative materials. Decorative material in atria shall be noncombustible, flame resistant or treated with a flame retardant.

~~S.Z.~~ **T.** New Section 901.4.7 is added to read as follows:

901.4.7 Additions, change of use, alterations and repairs to buildings. Additions, change of use, alterations and repairs to buildings shall comply with this section.

901.4.7.1 Additions or changes of use. Additions or changes of use to existing buildings which would result in a nonconforming building shall be brought up to current code requirements for fire protection systems.

Exception: A one time exemption for additions to Group R, Division 3 occupancies of up to 500 square feet is permitted without compliance with this section. This exemption shall be recorded with King County Records and Elections.

901.4.7.2 Alterations and repairs. When the value of all alterations or repairs performed within a seventy month period exceeds ~~50%~~ percent of the value of the building, then fire extinguishing systems, and fire detection systems shall be installed throughout the building if one would otherwise be required for the building if of new construction. The value of the building shall be as listed by the King County Assessor's Office or other acceptable method approved by the fire code official at the time of the first permit application or first alteration or repair work performed. Buildings not listed with an appraised value shall utilize an alternate method of valuation prescribed by the fire code official.

~~T.AA.~~ **U.** Section 901.7 is amended to read as follows:

901.7 Systems out of service. Where a fire protection system is out of service, the fire department and the fire code official shall be notified immediately and, where required by the fire code official, the building shall either be evacuated or an approved fire watch shall be provided for all occupants left unprotected by the shut down until the fire protection system has been returned to service. Where utilized, fire watches shall be provided with at least one approved means for notification of the fire department and their only duty shall be to perform constant patrols of the protected premises and keep watch for fires.

BB. New Section 901.7.7 is added to read as follows:

901.7.7 Replacing system to service. When a fire alarm control panel needs replacing or is no longer serviceable, the entire building must comply with current codes.

U.CC. ~~V.~~ Section 903.2 is amended to read as follows:

903.2 Where required. Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in this section.

V.DD. ~~W.~~ New Section 903.2.13 is added to read as follows:

903.2.13 All buildings. All newly constructed buildings shall comply with this section.

903.2.13.1 Gross square footage. All newly constructed buildings with a gross square footage of 4,800 or greater square feet, regardless of type or use as well as zero lot line townhouses with an aggregate area of all connected townhouses equaling 4,800 square feet or greater shall be sprinklered. All residential homes 10,000 square feet or greater shall require a NFPA 13R system.

903.2.13.2 Fire flow. All buildings requiring 2000 gallons per minute or more fire flow shall be sprinklered.

903.2.13.3 Group R Division 3. Group R, Division 3 occupancies shall be provided with an automatic sprinkler system if adequate fire flow, or hydrant spacing, or approved fire department access is not provided as defined in ~~IFC~~ Sections 503 and 507.

~~Exception: Up to two (2) Group R, Division 3 occupancy buildings less than 2,500 gross square feet (including attached garages) shall be exempt from this section.~~

W.EE. ~~X.~~ Section 903.4.3 is amended to read as follows:

903.4.3 Floor control valves. Approved supervised indicating control valves shall be provided at the point of connection to the riser on each floor. The floor control valves shall be located within stair enclosures and within 6 feet of floors or landings unless chains or other approved devices are readily available.

Exception: In buildings without stair enclosures, the location of the floor control valves shall be determined ~~When approved~~ by the fire code official ~~in NFPA 13D and NFPA 13R Systems.~~

~~X.FF.~~ **Y.** Section 904.11-12 is amended to read as follows:

904.11 Commercial cooking systems. The automatic fire-extinguishing system for commercial cooking systems shall be of a type recognized for protection of commercial cooking equipment and exhaust system of the type and arrangement protected. Pre-engineered automatic dry- and wet-chemical extinguishing systems shall be tested in accordance with UL 300 and listed and labeled for specific use as protection for commercial cooking operations. The system shall be installed in accordance with this code, its listing and the manufacturer's installation instructions. Automatic fire-extinguishing systems of the following types shall be installed in accordance with the referenced standard indicated, as follows:

1. Carbon dioxide extinguishing systems, NFPA 12.
2. Automatic sprinkler systems, NFPA 13.
3. Foam-water sprinkler system or foam-water spray systems, NFPA 16.
4. Dry-chemical extinguishing systems, NFPA 17.
5. Wet chemical extinguishing systems, NFPA 17A.

Exceptions:

1. Factory-built commercial cooking recirculating systems that are tested in accordance with UL 197 or 710B and listed, labeled and installed in accordance with Section 304.1 of the International Mechanical Code.

~~Y.GG.~~ **Z.** New Section 905.3.9 is added to read as follows:

905.3.9 High-rise building standpipes. Standpipe risers shall be combination standpipe/sprinkler risers using a minimum pipe size of 6-inch. Two 2 1/2-inch hose connections shall be provided on every intermediate floor level landing in every required stairway. Where pressure reduction 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 200 psi) at each standpipe connection, in addition to the flow and pressure requirements contained in NFPA 14.

905.3.9.1 Standpipes may be required below 30 feet. Standpipes may be required below 30 feet where the fire code official deems necessary.

~~Z.HH.~~ **AA. Section 905.4 is amended to read as follows:**

905.4 Location of Class I standpipe hose connections. Class I standpipe hose connections shall be provided in all of the following locations:

1. In every required stairway, a hose connection shall be provided for each floor level above or below grade. Hose connections shall be located at an intermediate floor level landing between floors. Where stairs are required to provide roof access, the standpipe roof connections shall be located adjacent to the stair opening on the roof.

2. On each side of the wall adjacent to the exit opening of a horizontal exit.

Exceptions:

1. Where floor areas adjacent to a horizontal exit are reachable from exit stairway hose connections by a 30-foot (9144 mm) hose stream from a nozzle attached to 100 feet (30 480 mm) of hose, a hose connection shall not be required at the horizontal exit.

2. When the fire code official determines that a standpipe connection is not needed.

~~63.~~ Where the most remote portion of a nonsprinklered floor or story is more than 150 feet (45 720 mm) from a hose connection or the most remote portion of a sprinklered floor or story is more than 150 feet (45 720 mm) from a hose connection, the fire code official is authorized to require that additional hose connections be provided in approved locations.

~~AA.II.~~ **BB. Section 907.2 is amended to read as follows:**

907.2 Where required – new buildings and structures. An approved fire alarm system installed in accordance with the provisions of this code and NFPA 72 shall be provided in new buildings and structures where there is a required sprinkler system, except one-and two-family dwelling as defined in the International Residential Code and in accordance with Sections 907.2.1 through 907.2.24 and provide occupant notification in accordance with Section 907.5, unless other requirements are provided by another section of this code.

A minimum of one manual fire alarm box shall be provided in an approved location to initiate a fire alarm signal to fire alarm systems employing automatic fire detectors or waterflow detection devices. Where other sections of this code allow elimination of fire alarm boxes due to sprinklers, a single fire alarm box shall be installed.

Exception: The manual fire alarm box is not required for fire alarm systems dedicated to elevator recall control and supervisory service.

~~BB.JJ.~~ **New Section 907.2.24 is added to read as follows:**

907.2.24 All buildings. All newly constructed buildings with a gross square footage of 3,000 or greater shall be provided with an approved automatic and manual fire alarm system.

Exceptions:

A. Group R Division 3 and 4, and Group U Occupancies having adequate fire flow and approved access.

B. Group R Division 3 and 4 dwelling units shall have interconnected single station smoke detectors in accordance with RCW 48.48.140 and WAC 212-10.

~~CC.KK.~~ **CC. New Section 907.2.25 is added to read as follows:**

907.2.25 Remodels and tenant improvements. When undergoing remodel and tenant improvements, existing occupancies equipped with smoke detectors that are 10 or more years old shall have all such detectors replaced with modern units. Those occupancies without the protection of smoke detection shall add smoke detection in accordance with the applicable requirements in the International Residential Code or International Building Code.

~~DD.LL.~~ **DD. New Section 907.2.26 is added to read as follows:**

907.2.26 Alarm panel beyond repair. When an alarm panel is beyond repair and parts are not available, a new alarm panel shall be required. Installation of the new alarm panel shall be in accordance with Section 907.

~~EE.MM.~~ **EE. New Section 913.2.3.**

Where fire pumps are installed, back-up power shall be installed for reliability. Generator shall meet NFPA 20 standards.

~~FF.NN.~~ **Section 1103.2 is amended to read as follows:**

1103.2 Emergency responder radio coverage in existing buildings. Buildings constructed prior to the implementation of this code shall not be required to comply with the emergency responder radio coverage provisions except as follows:

1. Whenever an existing wired communication system cannot be repaired or is being replaced.
2. Buildings identified in Section 510.1 undergoing substantial alteration as determined by the fire code official.
3. When buildings, classes of buildings, or specific occupancies do not have minimum radio coverage signal strength as identified in Section 510.4.1 and the fire code official determines that lack of minimum signal strength poses an undue risk to emergency responders that cannot be reasonably mitigated by other means.

~~FF.~~ **Sections 1103.8 and 1103.8.1 are amended to read as follows:**

~~1. 1103.8 Single and multiple station smoke alarms. Single and multiple station smoke alarms shall be installed in existing Group I-1 and R occupancies in accordance with Sections 1103.8.1 through 1103.8.3.~~

~~2. 1103.8.1 Where required. Existing Group I-1 and R occupancies shall be provided with single station smoke alarms in accordance with Section 907.2.11, except as provided in Sections 1103.8.2 and 1103.8.3.~~

~~Exception: Where smoke detectors connected to a fire alarm system have been installed as a substitute for smoke alarms.~~

~~GG.OO.~~ **GG. Section 5003.9 is amended to read as follows:**

5003.9 General safety precautions. General precautions for the safe storage, handling or care of hazardous materials shall be in accordance with Sections 5003.9.1 through 5003.9.11.

~~HH.PP.~~ **HH. New Section 5003.9.11 is added to read as follows:**

5003.9.11 Manufacturer's Limitations. The storage and use of hazardous materials shall not exceed the manufacturer's limitations on shelf life and any other restrictions on use.

QQ. Section 5307.5.2 is amended to read as follows:

5307.5.2 Emergency alarm system. An emergency alarm system shall comply with all of the following:

1. Continuous gas detection shall be provided to monitor areas where carbon dioxide can accumulate.
2. The threshold for activation of an alarm shall not exceed 5,000 parts per million (9,000 mg/m³).
3. Activation of the emergency alarm system shall initiate a local alarm within at the entrance to, and inside rooms or areas in which the where a CO₂ system is installed.
4. A warning sign is required at the entrance to the room or area: 'Carbon Dioxide Alarm. Do Not Enter. Call 9-1-1.'

~~H-RR.~~ **H. Sections 5504.3.1.1.3, 5704.2.9.6.1, 5706.2.4.4, and 6104.2 are amended to read as follows:**

1. 5504.3.1.1.3 Location. Amended to designate the applicable areas as the City of Shoreline, except as allowed by the fire code official.
 2. 5704.2.9.6.1 Locations where above-ground tanks are prohibited. Amended to designate the applicable areas as the City of Shoreline, except as allowed by the fire code official.
 3. 5706.2.4.4 Locations where above-ground tanks are prohibited. Amended to designate the applicable areas as the City of Shoreline, except as allowed by the fire code official.
 4. 6104.2 Maximum capacity within established limits. Amended to designate the applicable areas as the City of Shoreline, except as allowed by the fire code official.
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SMC 15.05.070 *International Property Maintenance Code amendments is amended as provided below.*

C. Section 108.1 is amended to read as follows:

108.1 General. When a structure, equipment or premises is found by the code official to be unsafe, dangerous or unfit for human occupancy, or is found unlawful, such structure or premises ~~shall~~ may be condemned pursuant to the provisions of this code; ~~provided the Director has the authority to modify any condemnation determination authorized by this section.~~ For unlawful structures or premises, condemnation shall only be warranted when the Director determines that the unlawful nature of the structure or premise creates a threat to the health, safety, or welfare of the occupants or the public

...

H. Section 201.3 is amended to read as follows:

201.3 Terms defined in other codes. Where terms are not defined in this code and are defined in codes adopted under Title 15 of the City of Shoreline Municipal Code, such terms shall have the meanings ascribed to them as stated in those codes.

I. Section 202 definition for “cost of demolition or emergency repairs” is not adopted.

~~H~~ J. Section 301.1 is amended to read as follows:

301.1 Scope. The provisions of this chapter shall govern the minimum conditions and the responsibilities of persons for maintenance of structures, equipment, premises and exterior property.

~~I~~ K. Section 302.5 is amended to read as follows:

302.5 Rodent harborage. All structures and exterior property shall be kept free from rodent harborage and infestation in accordance with the King County Board of Health Code 8.06. Where rodents are found, they shall be promptly

exterminated by approved process. After extermination, proper precautions shall be taken to eliminate rodent harborage and prevent reinfestation.

~~J~~ L. Section 302.8 is amended to read as follows:

302.8 Motor vehicles, recreational vehicles, and boats. Except as provided for in other regulations, no inoperative or unlicensed motor vehicle, recreational vehicle, or boat shall be parked, kept or stored on any premises, and no vehicle, recreational vehicle or boat shall at any time be in a state of major disassembly, disrepair, damaged to the extent it prevents normal operation, or in the process of being stripped or dismantled. Every motor vehicle, recreational vehicle or boat parked, kept or stored on any premises shall display current and valid registration tabs properly mounted in accordance with State of Washington rules and regulations. Painting of vehicles and boats is prohibited unless conducted inside an approved spray booth.

Any abatement of vehicles violating this section shall comply with SMC 20.30.750.

Exception: A vehicle of any type is permitted to undergo major overhaul, including body work, provided that such work is performed inside a structure or similarly enclosed area designed and approved for such purposes.

~~K~~ M. Section 309.1 is amended to read as follows:

309.1 Infestation. All structures shall be kept free from insect and rodent infestation in accordance with the King County Board of Health Code 8.06. All structures in which insects or rodents are found shall be promptly exterminated by approved processes. After extermination, proper precautions shall be taken to prevent reinfestation.

~~L~~ N. Sections 602.2 and 602.3 are amended to read as follows:

602.2 Residential occupancies. Dwellings shall be provided with permanently installed, safe, functioning heating facilities and an approved power or fuel supply system capable of maintaining a room temperature of 68°F (20°C) in all habitable rooms, bathrooms and toilet rooms. Cooking appliances shall not be used to provide space heating to meet the requirements of this section.

602.3 Heat supply. Every owner and operator of any building who rents, leases or lets one or more dwelling units, rooming units, dormitories or guestrooms on terms, either expressed or implied, to furnish heat to the occupants thereof shall supply heat during the period from October 1st to April 30th to maintain a temperature of not less than 65°F (18°C) in all habitable rooms, bathrooms, and toilet rooms.

Exception:

When the outdoor temperature is below the winter outdoor design temperature for the locality, maintenance of the minimum room temperature shall not be required provided that the heating system is operating at its full design capacity.

The winter outdoor design temperature for the locality shall be as indicated in the Plumbing Code adopted by the City of Shoreline.

Attachment A - EXHIBIT B
Ordinance No. 761

SMC 15.05.080 Standard for Fixed Guideway Transit and Passenger Rail Systems (NFPA 130) amendments.

Reviser's Note: An asterisk (*) following the number or letter designating a paragraph indicates that explanatory material on the paragraph can be found in Annex A of NFPA 130.

A. Section 1.1.1 is amended to read as follows:

1.1.1 This standard shall cover life safety from fire and fire protection requirements for new surface, and elevated fixed guideway transit and passenger rail systems, including, but not limited to, stations, trainways, emergency ventilation systems, vehicles, emergency procedures, communications, control systems and vehicle storage areas that are predominantly open to the atmosphere.

This standard as adopted and amended by the City of Shoreline, is the primary applicable standard, and other codes apply only as referenced herein, except that the fire marshal and/or building official shall have the authority to require design to other adopted codes where deemed appropriate. Wherever there are practical difficulties involved in carrying out the provisions of this standard, the fire marshal and building official shall have the authority to grant modifications for individual cases, upon application of the owner or owner's representative, provided the fire marshal and/or building official shall first find that special individual reason makes the strict letter of this standard impractical and the modification is in compliance with the intent and purpose of this standard and that such modification does not lessen health, accessibility, life and fire safety, or structural requirements.

B. Section 1.1.3 is amended to read as follows:

1.1.3 This standard shall not cover requirements for the following:

- (1) Conventional freight systems
- (2) Buses and trolley coaches
- (3) Circus trains
- (4) Tourist, scenic, historic, or excursion operations
- (5) Any other system of transportation not included in the definition of fixed guideway transit (see 3.3.52.1) or passenger rail (see 3.3.52.2) system
- (6) Shelter stops
- (7) Ancillary facilities such as parking structures or vehicle maintenance facilities
- (8) Occupied building or structure areas not directly related to fixed guideway transit and passenger rail systems, as determined by the fire marshal and/or building official.

C. New Section 2.5 is added to read as follows:

2.5 Shoreline Municipal Code.
Construction and Building Codes (SMC 15.05)

D. Section 3.2.3 is amended to read as follows:

Section 3.2.3 Authority Having Jurisdiction (AHJ). City of Shoreline building official, fire marshal or other designated authority charged with the administration and enforcement of the adopted codes.

E. Section 3.3.35 is amended to read as follows:

3.3.35 Point of Safety. A point of safety is one of the following: (1) an enclosed exit passageway as defined by the International Building Code 202 that leads to a public way or safe location outside the station, trainway, or vehicle; (2) an at-grade point not less than 50 feet beyond the vehicle, station, or trainway in accordance with International Building Code 1027.5; (3) any other approved location.

F. Section 5.1.2.3 is added to read as follows:

5.1.2.3 For the purposes of this standard application, boundaries shared by right of way entities shall not be construed as property lines.

G. New Sections 5.1.3.4, 5.1.3.5 and 5.1.3.6 are added to read as follows:

5.1.3.4 Fixed transportation facilities and stations shall comply with the applicable provisions of the International Building Code Appendix “E” Supplementary Accessibility Requirements Section, E109, Transportation Facilities and Stations.

5.1.3.5 Stations shall include the minimum number of plumbing fixtures in accordance with Section 2902.1 of the International Building Code.

Exception: Any provision for public restrooms

5.1.3.6 Stations shall comply with applicable provisions of the Washington State Energy Code, International Mechanical Code, International Fuel Gas Code and Uniform Plumbing Code.

H. Section 5.2.1 is repealed in its entirety and replaced to read as follows:

5.2.1 Safeguards During Construction. During the course of construction or major modification of any structure, provisions of Chapter 33 of the International Fire Code and Chapter 33 of the International Building Code shall apply.

I. Section 5.2.2 is repealed in its entirety and replaced to read as follows:

5.2.2 Construction Type.

5.2.2.1 Building construction for all new enclosed stations shall be not less than Type I or Type II or combinations of Type I and Type II noncombustible construction as defined in Chapter 6 of the International Building Code, for the station configuration, or as determined by an engineering analysis of potential fire exposure hazards to the structure.

5.2.2.2 Other types of construction are permitted for open stations in accordance with the provisions of Chapter 6 of the International Building Code for corresponding station configurations.

5.2.2.3 Where access for firefighting is restricted, standpipes sized to provide 500 gpm shall be provided. Hydraulic calculations shall be based on 500 gpm at 150 psi at the hydraulically most remote hose connection, with a simultaneous flow of 500 gpm at the next hydraulically most remote hose connection. The maximum calculated pressure at any point in the system shall not exceed 350 psi. Hose connection outlets shall be provided at maximum 200 feet spacing.

J. Section 5.2.4.3 is repealed in its entirety and replaced to read as follows:

5.2.4.3 Ancillary Spaces. Fire resistance ratings of separations between ancillary occupancies shall be established in accordance with Chapters 3, 5 & 7 of the International Building Code.

K. Section 5.3.1 is repealed in its entirety and replaced to read as follows:

5.3.1 General. The provisions for means of egress for a station shall comply with Section 5.3 and the following International Building Code provisions, as modified herein;

Maintenance of the means of egress (MOE) system; 1001.2, 1001.3, 1020.1

Ceiling height; 1003.2, 1009.5

Protruding objects and encroachment; 1003.3, 1005.7

Elevation changes; 1003.5

MOE system continuity; 1003.6, 1005.4, 1006

Posting the maximum occupant load; 1004.3, Posting the maximum occupant load sign is required in enclosed and elevated stations, in spaces with a total occupant load of 50 or more as determined by section 5.3.2.1, item (2).

Outdoor areas; 1004.5, except for at-grade stations

Multiple occupancies; 1004.6, 1007

Doors, gates, turnstiles and door hardware; 1010

Stairway design; 1011

Ramp design; 1012

General signage; 1007.9, 1007.10, 1010.1.9.3, 1010.1.9.7, 10010.1.9.8, 1023.9

Exit signs; 1013 Exception: Exit signs are not required for at-grade platform stations

Handrail design; 1003.5, 1005.7.2, 1029.15, 1009.15, 1012.8, 1012.10.2, 1014, 1015.3, 1025.2.3, 1029.6.1, 1029.9.1, 1029.12.1

Guard rail design; 1015

Boiler, incinerator, furnace, refrigeration machinery and refrigerated rooms; 1006.2.2.1 through 1006.2.2.3

Interior stairway and ramps; 1023

Exit passageways; 1024

L. Section 5.3.2.4 (1) is amended to read as follows:

5.3.2.4 (1) The occupant load for that area shall be determined in accordance with the provisions of the International Building Code as appropriate for the use.

M. New Section 5.3.2.4.1 is added to read as follows:

5.3.2.4.1 For the purpose of determining the number of required exits and the minimum egress width, the number of occupants computed at the rate of one occupant per unit of area as follows:

- (1) 60 sq.ft. gross for mercantile
- (2) 100 sq.ft. gross for business areas
- (3) 300 sq.ft. gross for storage areas, and mechanical equipment rooms
- (4) Occupant loads for other uses shall be determined by the building official

N. Section 5.3.9.1 is amended to read as follows:

5.3.9.1 Horizontal exits shall be in accordance with International Building Code section 1026.

O. Section 5.3.11 is repealed in its entirety and replaced to read as follows:

5.3.11 Means of Egress Lighting

5.3.11.1 Illumination levels of station means of egress shall not be less than 1 ft-candle at the walking surface.

P. Section 5.4.4.1* is amended to read as follows:

5.4.4.1 An automatic sprinkler protection system shall be provided in all areas of stations including that used for concessions, storage areas, trash rooms, and other similar areas with combustible loadings, except trainways.

Q. Section 5.4.4.2 is repealed in its entirety.

R. Section 5.4.5 is repealed in its entirety and replaced to read as follows:

5.4.5 Standpipe and Hose Systems. Standpipes shall comply with International Fire Code Section 905.

S. Section 5.4.6 is amended to read as follows:

5.4.6 Portable Fire Extinguishers. In back of house spaces only, provide portable fire extinguishers in such number, size, type, in accordance with International Fire Code Section 906.

T. Section 6.3.3.10 is amended to read as follows:

6.3.3.10 Exit stairs and doors shall comply with Chapter 10 of International Building Code, except as herein modified

U. Section 6.4.4.10 amended to read as follows:

6.4.4.10 A fire department access road shall extend to within 75 ft. of the fire department connection.

V. Section 10.3.2 is amended to read as follows:

10.3.2 Emergency Responder radio coverage shall be provided throughout all stations and ancillary spaces in accordance with International Fire Code 510.1.

W. Section 10.6.1 is amended to read as follows:

10.6.1. All stations shall have a Public Address system for communicating with passengers and employees designed in accordance with Chapter 24 of NFPA 72. (For communication requirements for vehicles, see 8.9.2).