

**Amendments to Title 17 MICC, Construction Codes.**

MICC Title 17 "CONSTRUCTION CODES" is hereby amended as follows:

Chapters:

[17.17 International Existing Building Code](#)

[17.18 International Swimming Pool and Spa Code](#)

**Amendments to Chapter 17.01 MICC, International Building Code.**

MICC 17.01 "INTERNATIONAL BUILDING CODE" is hereby amended as follows

17.01.010 Adoption.

The ~~2015~~ [2018](#) Edition of the International Building Code (IBC) including the adoption of ICC/ANSI A117.1-2009, Requirements for Accessible and Useable Buildings and Facilities, as adopted and amended by the State Building Code Council in Chapter [51-50](#) WAC, as published by the International Code Council, excluding Chapter 1, Administration, is adopted by reference, together with the following amendments and additions. The Construction Administrative Code, as set forth in Chapter [17.14](#) MICC, shall be used in place of IBC Chapter 1, Administration. The codes, appendices, and standards set forth in this chapter shall be filed with the city clerk and a copy made available for use and examination by the public, pursuant to RCW [35A.12.140](#). Exceptions. The provisions of this code do not apply to temporary growing structures used solely for the commercial production of horticultural plants including ornamental plants, flowers, vegetables, and fruits. "Temporary growing structure" means a structure that has the sides and roof covered with polyethylene, polyvinyl, or similar flexible synthetic material and is used to provide plants with either frost protection or increased heat retention. A temporary growing structure is not considered a building for purposes of this code.

The provisions of this code do not apply to the construction, alteration, or repair of temporary worker housing except as provided by rule adopted under Chapter [70.114A](#) RCW or Chapter 37, Laws of 1998 (SB 6168). "Temporary worker housing" means a place, area, or piece of land where sleeping places or housing sites are provided by an employer for his or her employees or by another person, including a temporary worker housing operator, who is providing such accommodations for employees, for temporary, seasonal occupancy, and includes "labor camps" under RCW [70.54.110](#).

A. The following appendices of the ~~2015~~ [2018](#) Edition of the International Building Code are also adopted by reference: Appendix E – Supplementary Accessibility Requirements, and Appendix H – Signs.

~~B. The 2015 International Existing Building Code (IEBC) is included in the adoption of the International Building Code as provided by IBC Section 101.4.7 and amended in WAC [51-50-480000](#), including Appendix A, Guidelines for the Seismic Retrofit of Existing Buildings, excluding Chapter 1, Part 2—Administration. The Construction Administrative Code, as set forth in Chapter [17.14](#) MICC, shall be used in place of IEBC Chapter 1, Part 2—Administration.~~

~~C. The 2015 International Swimming Pool and Spa Code (ISPSC) is included in the adoption of the International Building Code as provided by IBC Section 3109.1 and amended in WAC [51-50-3109](#), excluding Chapter 1, Part 2—Administration. The Construction Administrative Code, as set forth in Chapter [17.14](#) MICC, shall be used in place of ISPSC Chapter 1, Part 2—Administration. The design and construction of swimming pools, spas and other aquatic recreation facilities shall comply with the ISPSC, where the facility is one of the following, except that public swimming pool barriers are regulated by WAC [246-260-031\(4\)](#):~~

- ~~1. For the sole use of residents and invited guests at a single-family dwelling;~~
- ~~2. For the sole use of residents and invited guests of a duplex owned by the residents; or~~
- ~~3. Operated exclusively for physical therapy or rehabilitation and under the supervision of a licensed medical practitioner.~~

~~All other "water recreation facilities" as defined in RCW 70.90.110 are regulated under Chapters 246-260 and 246-262 WAC.~~

~~G. The 2015 International Swimming Pool and Spa Code (ISPSC) is included in the adoption of the International Building Code as provided by IBC Section 3109.1 and amended in WAC 51-50-3109, excluding Chapter 1, Part 2—Administration. The Construction Administrative Code, as set forth in Chapter 17.14 MICC, shall be used in place of ISPSC Chapter 1, Part 2—Administration. The design and construction of swimming pools, spas and other aquatic recreation facilities shall comply with the ISPSC, where the facility is one of the following, except that public swimming pool barriers are regulated by WAC 246-260-031(4):~~

- ~~1. For the sole use of residents and invited guests at a single-family dwelling;~~
- ~~2. For the sole use of residents and invited guests of a duplex owned by the residents; or~~
- ~~3. Operated exclusively for physical therapy or rehabilitation and under the supervision of a licensed medical practitioner.~~

~~All other "water recreation facilities" as defined in RCW 70.90.110 are regulated under Chapters 246-260 and 246-262 WAC.~~

#### **BD. Miscellaneous.**

1. *Recyclable Materials, Compost, and Solid Waste Storage.*
    - a. For the purposes of this section, the following definitions shall apply:
      - i. "Compost" means biodegradable solid wastes that are separated for composting such as food waste, food soiled paper and yard waste.
      - ii. "Recycled materials" means those solid wastes that are separated for recycling or reuse, such as papers, metals and glass.
    - b. All local jurisdictions shall require that space be provided for the storage of recycled materials, compost, and solid waste for all new buildings.
    - c. The storage area shall be designed to meet the needs of the occupancy, efficiency of pickup, and shall be available to occupants and haulers.
- Exception. Group R-3 and Group U occupancies.

#### **17.01.020 Amendments and additions.**

A. *IBC Section 202 Amended – Definitions, High-Rise Building.* Section 202 of the International Building Code is hereby amended to read as follows:

HIGH-RISE BUILDING. A building with an occupied floor or rooftop located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access.

B. *IBC Section 312.1 Amended – Utility and Miscellaneous Group U, General.* Section 312.1 of the International Building Code is hereby amended to read as follows:

Section 312.1 – General. Buildings and structures of an accessory character and miscellaneous structures not classified in any specific occupancy shall be constructed, equipped and maintained to conform to the requirements of this code commensurate

with the fire and life hazard incidental to their occupancy. Group U shall include, but not be limited to, the following:

Agricultural buildings

Aircraft hangars, accessory to a one- or two-family residence (see Section 412.5)

Barns

Carports

[Communication equipment structures with a gross floor area of less than 1500 square feet \(139 square meters\)](#)

Fences more than 6 feet (1,829 mm) high

Grain silos, accessory to a residential occupancy

~~Greenhouses~~

Livestock shelters

Private garages

Retaining walls

Sheds

Stables

Tanks

Towers

Waterfront structures

C. IBC Section 405.8 Amended – Underground Buildings, Standby Power. Section 405.8 of the International Building Code is hereby amended to read as follows:

Section 405.8 – Standby power. A standby power system complying with Section 2702 shall be provided for standby power loads specified in Section 405.8.1. An emergency power system complying with Section 2702 shall be provided for the emergency power loads specified in Section 405.8.1. Fuel-fired emergency generator sets and associated fuel storage, including optional generator sets, located more than 30 feet below the lowest level of exit discharge requires the approval of the Fire Code Official.

D. IBC Section ~~504.2~~[502.1](#) Amended – General Building Heights and Areas, General, Address Identification. Section ~~504.2~~[502.1](#) of the International Building Code is hereby amended to read as follows:

Section ~~504.2~~[502.1](#) – New and existing buildings shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be not less than six (6) inches high with a minimum stroke width of 1/2 inch. Where required by the fire code official, address identification shall be provided in additional approved locations to facilitate emergency response. Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Address identification shall be maintained.

E. IBC Section 903.2 Amended – Fire Protection Systems, Automatic Sprinkler Systems, Where Required. Section 903.2 of the International Building Code is hereby amended to read as follows:

903.2 Where required. Approved automatic sprinkler systems shall be installed in all newly constructed buildings and structures with a gross floor area of 5,000 square feet or greater and shall be provided in the locations described in Sections 903.2.1 through 903.2.12.

F. IBC Section 903.3.1.2 Amended – NFPA 13R Sprinkler Systems. Section 903.3.1.2 of the International Building Code is hereby amended to read as follows:

Section 903.3.1.2 NFPA 13R sprinkler systems. Automatic sprinkler systems in one and two family dwellings shall be permitted to be installed throughout in accordance with NFPA 13R. One and two family dwellings 10,000 square feet and larger shall be installed in accordance with NFPA 13R or 13. Systems in accordance with NFPA 13R shall not be installed in R-1 or R-2 Occupancies.

G. IBC Section 903.4.3 Amended – Sprinkler System Monitoring and Alarms, Floor Control Valves. Section 903.4.3 of the International Building Code is hereby amended to read as follows:

Section 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.

Exception: When approved by the Fire Code Official in NFPA 13D and NFPA 13R Systems.

H. IBC Section 907.2 Amended – Where Required – New Buildings and Structures. Section 907.2 of the International Fire Code is hereby added 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 in accordance with Sections 907.2.1 through 907.2.23. For all newly constructed buildings with a gross floor area of 3,000 or greater square feet an approved manual and automatic fire alarm system shall be installed.

Exceptions:

1. One- and two-family dwellings, Group R-3, Group R-4, and Group U Occupancies having adequate fire flow and approved access. Dwelling units shall have interconnected single station smoke detectors in accordance with RCW 48.48.140 and WAC 212-10.
2. Buildings under 10,000 square feet that are protected throughout by an approved and monitored automatic sprinkler system installed in accordance with section 903.3.1.1 unless required by other sections of this code.

The system shall 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 for fire alarm systems employing automatic fire detectors or water-flow 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.

Exceptions:

1. The manual fire alarm box is not required for fire alarm systems dedicated to elevator recall control and supervisory service.
2. The manual fire alarm box is not required for Group R-2 occupancies unless required by the fire code official to provide a means for fire watch personnel to initiate an alarm during a sprinkler system impairment event. Where provided, the manual fire alarm box shall not be located in an area that is accessible to the public.

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 a manual and automatic fire alarm system in

accordance with the applicable requirements in this section and other sections that may apply.

Additions. Additions to existing buildings shall meet the requirements of, Remodels and Tenant improvements, for the whole building and additionally provide the same coverage level to the addition as the rest of the building unless authorized by the Fire Code Official.

I. IBC Section 1608.1 Amended – Snow Loads – General. Section 1608.1 of the International Building Code is hereby amended to read as follows:

1608.1 Snow Loads – General. Design snow loads shall be determined in accordance with Chapter 7 of ASCE 7, but the design roof load shall not be less than that determined by Section 1607. Furthermore, the design roof snow load shall not be less than 25 pounds per square feet. When using this design roof snow load it will be left to the engineer's judgment whether to consider drift or sliding snow. However, the engineer shall consider a rain on snow surcharge of at least 5 pounds per square feet for roof slopes less than 5 degrees.

I.J. IBC Section 3112 Revised – Waterfront Structures. Section 3112 of the International Building Code is hereby added to read as follows:

**SECTION 3112 – WATERFRONT STRUCTURES**

Section 3112.1 General. In addition to other requirements of this code, all waterfront structures including but not limited to docks, piers, wharves, floats, mooring piles, anchor buoys, bulkheads, submerged or overhead wires, pipes, and cables, and any object passing beneath, through or over the water beyond the line of ordinary high water shall comply with the regulations of this section.

Section 3112.2 Approvals required. Before any permit for a new waterfront structure or revisions to an existing waterfront structure is issued by the building official, the applicant shall obtain prior approval from all applicable state and federal agencies.

Section 3112.3 Definitions. For the purposes of this section, certain terms are defined as follows:

**BULKHEAD.** A retaining wall or erosion-control structure along a waterfront.

**COVERED WATERFRONT STRUCTURE.** Any waterfront structure covered in whole or in part by a roof.

**COVERED WATERFRONT STRUCTURE BUILDING AREA.** The area lying directly beneath the portion of a structure covered by a roof.

**SUBSTRUCTURE.** That portion of the construction of a dock, pier, wharf or other similar waterfront structure below and including the deck.

**SUPERSTRUCTURE.** That portion of the construction of a dock, pier, wharf or other similar waterfront structure above the deck.

Section 3112.4 Construction Requirements. Waterfront structures shall comply with Sections 3112.4.1 through 3112.4.3.

Section 3112.4.1 Substructure. The substructure may be constructed of any materials allowed by this code. All decks shall sustain, within the limitations of this code, all dead loads plus a live load of not less than 100 pounds per square foot, assumed to act vertically. In addition to the live load requirement, all structures and every portion thereof shall be designed and constructed to resist a horizontal force of not less than 100 pounds per lineal foot acting at the deck line, in any direction.

Exception: For waterfront structures serving only a single dwelling, a live load of 40 psf may be used and a horizontal force need only be considered where applicable.

Section 3112.4.2 Superstructure. The superstructure shall be designed and constructed to sustain all dead loads, live loads, and wind loads required by this code, and shall be constructed of any materials allowed by this code, except when the building area of a covered waterfront structure exceeds 1,000 square feet the entire superstructure and deck shall be constructed of noncombustible materials or as required for Type IV-HT Construction per IBC Section 602.4.

Section 3112.4.3 Hardware. All hardware used structurally shall be of a corrosive-resistant metal such as aluminum, brass, copper, and stainless steel, or be completely protected by an approved corrosion-resistant metal, such as zinc.

**J.K.** IBC Appendix H, Section H101.3 Added – Signs, General, Conflict with Mercer Island City Code. Appendix H, Section H101.3 of the International Building Code is hereby added to read as follows:

Section H101.3, Conflict with Mercer Island City Code. If any provisions of IBC Appendix H are in conflict with any provisions of the Mercer Island City Code, the applicable provisions of the Mercer Island City Code shall govern.

### **Amendments to Chapter 17.02 MICC, International Residential Code.**

MICC 17.02 “INTERNATIONAL RESIDENTIAL CODE” is hereby amended as follows

17.02.010 Adoption.

The ~~2015~~ 2018 Edition of the International Residential Code (IRC), as adopted and amended by the State Building Code Council in Chapter 51-51 WAC, as published by the International Code Council, is adopted by reference with the following additions, deletions and exceptions: Provided, that Chapter 1, Part 2 – Administration and Enforcement, is not adopted and the Construction Administrative Code, as set forth in Chapter 17.14 MICC, shall be used in place of IRC Chapter 1, Part 2 - Administration and Enforcement. Provided, that Chapters 11 and 25 through 43 of the International Residential Code are not adopted. Provided, that the energy code is regulated by Chapter 51-11R WAC; the plumbing code is regulated by Chapter 51-56 WAC; the electrical code is regulated as adopted by MICC 17.13.020. Provided, that the standards for liquefied petroleum gas installations shall be ~~2014~~ 2017 NFPA 58 (Liquefied Petroleum Gas Code) and ~~2014~~ 2018 NFPA 54 (National Fuel Gas Code). Provided, that all other fuel gas installations shall be regulated by the International Mechanical Code and International Fuel Gas Code. Provided, that Appendix F – Radon Control Methods, Appendix Q – Tiny Homes, and Appendix U - Dwelling Unit Fire Sprinkler Systems, and Appendix V – Fire Sprinklers are adopted. The codes, appendices, and standards set forth in this chapter shall be filed with the city clerk and a copy made available for use and examination by the public, pursuant to RCW 35A.12.140.

Exceptions. The provisions of this code do not apply to temporary growing structures used solely for the commercial production of horticultural plants including ornamental plants, flowers, vegetables, and fruits. "Temporary growing structure" means a structure that has the sides and roof covered with polyethylene, polyvinyl, or similar flexible synthetic material and is used to provide plants with either frost protection or increased heat retention. A temporary growing structure is not considered a building for purposes of this code.

The provisions of this code do not apply to the construction, alteration, or repair of temporary worker housing except as provided by rule adopted under Chapter 70.114A RCW or Chapter 37, Laws of 1998 (SB 6168). "Temporary worker housing" means a place, area, or piece of land where sleeping places or housing sites are provided by an employer for his or her employees or by another person, including a temporary worker housing operator, who is providing such accommodations for employees, for temporary, seasonal occupancy, and includes "labor camps" under RCW 70.54.110.

~~A. The 2015 International Swimming Pool and Spa Code (ISPSC) is included in the adoption of the International Residential Code as provided by IRC Section R329 and amended in WAC 51-51-0329, excluding Chapter 1, Part 2 — Administration. The Construction Administrative Code, as set forth in Chapter 17.14 MICC, shall be used in place of ISPSC Chapter 1, Part 2 — Administration. The design and construction of swimming pools, spas and other aquatic recreation facilities shall comply with the ISPSC, where the facility is one of the following, except that public swimming pool barriers are regulated by WAC 246-260-031(4):~~

- ~~1. For the sole use of residents and invited guests at a single-family dwelling;~~
- ~~2. For the sole use of residents and invited guests of a duplex owned by the residents; or~~
- ~~3. Operated exclusively for physical therapy or rehabilitation and under the supervision of a licensed medical practitioner.~~

~~All other "water recreation facilities" as defined in RCW 70.90.110 are regulated under Chapters 246-260 and 246-262 WAC. (Ord. 17C-01 § 2; Ord. 16C-04 § 2; Ord. 13C-06 § 2; Ord. 10C-03 § 2; Ord. 07C-04 § 3; Ord. 04C-12 § 4).~~

17.02.020 Amendments and additions.

A. IRC Table R301.2(1) Amended. International Residential Code Table R301.2(1) is hereby amended to read as follows:



TABLE R301.2(1)  
CLIMATIC AND GEOGRAPHIC DESIGN  
CRITERIA

ROOF SNOW LOAD <sup>a</sup> (psf)	WIND DESIGN				SEISMIC DESIGN CATEGORY	SUBJECT TO DAMAGE FROM			OUTDOOR DESIGN TEMP (F) - Heat/Cool	ICE BARRIER UNDERLAYMENT REQUIRED	FLOOD HAZARD <sup>e</sup>	AIR FREEZING INDEX	MEAN ANNUAL TEMP
	Speed <sup>b</sup> (mph)	Topographic effects <sup>c</sup>	Special wind region	Windborne debris zone		Weathering <sup>d</sup>	Frost line depth	Termite					
25	110	Yes	No	No	D2	Moderate	12"	Slight to Moderate	83/24	No	N.A.	113	53
MANUAL J DESIGN CRITERIA													
Elevation		Latitude		Winter heating	Summer cooling	Altitude correction factor		Indoor design temperature	Design temperature cooling		Heating temperature difference		
338 feet		47°34'39"		72°F max	75°F min	0.99		72°F	75°F		48°F		
Cooling temperature difference		Wind velocity heating		Wind velocity cooling	Coincident wet bulb	Daily range		Winter humidity	Summer humidity				
8°F		N.A.		N.A.	66	Medium		75%	68%				

- a. This is the minimum roof snow load. When using this snow load it will be left to the engineer's judgment whether to consider drift or sliding snow. However, rain on snow surcharge of 5 psf must be considered for roof slopes less than 5 degrees.
- b. The 110 mph Ultimate Design Wind Speed (3-second gust) as adopted by the 2018 IRC/ASCE 7-10 (or if using the IBC for structural design, the 98 mph Basic Design Wind Speed as adopted by the 2018 IBC/ASCE 7-16 may be used).
- c. Wind exposure category and Topographic effects (Wind Speed-up Kzt factor) shall be determined on a site-specific basis by the Engineer of Record (components and cladding need not consider topographic effects unless otherwise determined by the engineer of record).
- d. Weathering may require a higher strength concrete or grade of masonry than necessary to satisfy the structural requirements of this code. The grade of masonry units shall be determined from ASTM C 34, C 55, C 62, C 73, C 90, C 129, C 145, C 216 or C 652.
- e. The City of Mercer Island participates in the National Flood Insurance Program (NFIP); Regular Program (No Special Flood Hazard Area). Further NFIP participation information: CID 530083, Initial FIRM Identified 06/28/74, Initial FIRM Identified 05/16/95, Current Effective Map Date (NSFHA), Reg-Emer Date 06/30/97, 53033C0654G Effective 8/19/2020.

### IRC Table R301.2(1)

### Climatic and Geographic Design Criteria

Roof Snow Load <sup>a</sup>	Wind Design <sup>b</sup>		Seismic Design Category <sup>c</sup>	Subject to Damage From:			Outside Design Temp - Heat/Cool	Ice Barrier Underlayment Required	Flood Hazards <sup>e</sup>	Air Freezing Index	Mean Annual Temp
	Speed	Topographic Effects		Weathering <sup>d</sup>	Frost Line Depth	Termite Decay					
25-psf	110-mph	See footnote <sup>b</sup>	D2	Moderate	12"	Slight to Moderate	24°F/83°F	No	N/A	113	53°F

<sup>a</sup>—When using this roof snow load it will be left to the engineer's judgment whether to consider drift or sliding snow. However, rain on snow surcharge of 5 psf must be considered for roof slopes less than 5 degrees.

<sup>b</sup>—Wind exposure category and Topographic effects (Wind Speed-up Kzt factor) shall be determined on a site-specific basis by the Engineer of Record (components and cladding need not consider topographic effects unless otherwise determined by the engineer of record).

<sup>c</sup>—From IRC Table 301.2(1).

<sup>d</sup>—Weathering may require a higher strength concrete or grade of masonry than necessary to satisfy the structural requirements of this code. The grade of masonry units shall be determined from ASTM C 34, C 55, C 62, C 73, C 90, C 129, C 145, C 216 or C 652.

<sup>e</sup>—The City of Mercer Island participates in the National Flood Insurance Program (NFIP); Regular Program (No Special Flood Hazard Area). Further NFIP participation information: CID-



~~530083, Initial FHB identified 06/28/74, Initial FIRM identified 05/16/95, Current Effective Map Date (NSFHA), Reg Emer Date 06/30/97.~~

B. IRC AV107.2 Added. International Residential Code Appendix V Section AV107.2 is hereby added as follows:

AV107.2 Fire sprinklers in Existing Buildings. An approved automatic fire sprinkler system shall be installed throughout the residence in existing one-family and two-family dwellings (and townhouses) in accordance with Appendix ~~Q~~U when undergoing a remodel or addition when the construction value of all additions, alterations or repairs performed within a sixty-month period exceeds 50% of the value of the residence. Value shall be determined by a method approved by the fire code official.

C. IRC AV107.3 Added. International Residential Code Appendix V Section AV107.3 is hereby added as follows:

AV107.3 Household Fire Alarm System. An approved Household Fire Alarm System shall be installed throughout the residence in existing one-family and two-family dwellings (and townhouses) that have deficiencies in Fire Flow, hydrants or access. This system shall be installed in accordance with NFPA 72 chapter 29 when undergoing a remodel or addition when the construction value of all additions, alterations or repairs performed within a sixty-month period is within 10% to 50% of the value of the residence. Value shall be determined by a method approved by the fire code official.

**Amendments to Chapter 17.03 MICC, International Mechanical Code.**

MICC 17.03 "INTERNATIONAL MECHANICAL CODE" is hereby amended as follows:

17.03.010 Adoption.

The ~~2015-2018~~ Edition of the International Mechanical Code (IMC), as adopted and amended by the State Building Code Council in Chapter ~~51-52~~ WAC, as published by the International Code Council, is adopted by reference with the following additions, deletions and exceptions: Provided, that Chapter 1, Part 2 – Administration and Enforcement, is not adopted and the Construction Administrative Code, as set forth in Chapter ~~17.14~~ MICC, shall be used in place of IMC Chapter 1, Part 2 – Administration and Enforcement. Provided, that the installation of fuel gas distribution piping and equipment, fuel gas-fired appliances and fuel gas-fired appliance venting systems shall be regulated by the International Fuel Gas Code. Provided, that detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories high with separate means of egress and their accessory structures shall comply with the International Residential Code. Provided, that the standards for liquefied petroleum gas installations shall be the ~~2014-2017~~ Edition of NFPA 58 (Liquefied Petroleum Gas Code) and the ~~2015-2018~~ Edition of ANSI Z223.1/NFPA 54 (National Fuel Gas Code). References in this code to Group R shall include Group I-1, Condition 2 assisted living facilities licensed by Washington state under chapter 388-78A WAC and Group I-1, Condition 2 residential treatment facilities licensed by Washington state under chapter 246-337 WAC. The codes, appendices, and standards set forth in this chapter shall be filed with the city clerk and a copy made available for use and examination by the public, pursuant to RCW ~~35A.12.140~~.

Exceptions. The provisions of this code do not apply to temporary growing structures used solely for the commercial production of horticultural plants including ornamental plants, flowers, vegetables, and fruits. "Temporary growing structure" means a structure that has the sides and

roof covered with polyethylene, polyvinyl, or similar flexible synthetic material and is used to provide plants with either frost protection or increased heat retention. A temporary growing structure is not considered a building for purposes of this code.

Conflicts. In the case of conflict between the duct sealing or insulation requirements of Section 603 or Section 604 of this code and the duct sealing or insulation requirements of Chapter 51-11C/~~R~~ WAC, the Washington State Energy Code, the provisions of the energy codes shall govern.

**Amendments to Chapter 17.04 MICC, National Fuel Gas Code (NFPA 54).**

MICC 17.04 “NATIONAL FUEL GAS CODE” is hereby amended as follows:

17.04.010 Adoption.

The ~~2015~~-2018 Edition of the National Fuel Gas Code (ANSI Z223.1/NFPA 54), as adopted by the State Building Code Council in Chapter ~~51-52~~ WAC, as published by NFPA, is adopted by reference. The Construction Administrative Code, as set forth in Chapter ~~17.14~~ MICC, shall be applied for the administration of this code. The codes, appendices, and standards set forth in this chapter shall be filed with the city clerk and a copy made available for use and examination by the public, pursuant to RCW ~~35A.12.140~~.

**Amendments to Chapter 17.05 MICC, Liquefied Petroleum Gas Code (NFPA 58).**

MICC 17.05 “LIQUEFIED PETROLEUM GAS CODE” is hereby amended as follows:

17.05.010 Adoption.

The ~~2014~~-2017 Edition of the Liquefied Petroleum Gas Code (NFPA 58), as adopted by the State Building Code Council in Chapter ~~51-52~~ WAC, as published by NFPA, is adopted by reference. The Construction Administrative Code, as set forth in Chapter ~~17.14~~ MICC, shall be applied for the administration of this code. The codes, appendices, and standards set forth in this chapter shall be filed with the city clerk and a copy made available for use and examination by the public, pursuant to RCW ~~35A.12.140~~.

**Amendments to Chapter 17.06 MICC, International Fuel Gas Code.**

MICC 17.06 “INTERNATIONAL FUEL GAS CODE” is hereby amended as follows:

17.06.010 Adoption.

The ~~2015~~-2018 Edition of the International Fuel Gas Code (IFGC), as adopted by the State Building Code Council in Chapter ~~51-52~~ WAC, as published by the International Code Council, excluding Chapter 1, Part 2 – Administration and Enforcement, is adopted by reference. The Construction Administrative Code, as set forth in Chapter ~~17.14~~ MICC, shall be used in place of IFGC Chapter 1, Part 2 – Administration. Provided, that detached and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories high with separate means of egress and their accessory structures shall comply with the International Residential Code. Provided, that the standards for liquefied petroleum gas installations shall be the ~~2014~~-2017 Edition of NFPA 58 (Liquefied Petroleum Gas Code) and the ~~2015~~-2018 Edition of ANSI Z223.1/NFPA 54 (National Fuel Gas Code). The codes, appendices, and standards set forth in this chapter shall be filed with the city clerk and a copy made available for use and examination by the public, pursuant to RCW ~~35A.12.140~~.

~~17.06.020 — Amendments and additions.~~~~A. IFGC Section 614.4 Amended — Clothes Dryer Exhaust, Exhaust Installation. Section 614.4 of the International Fuel Gas Code is hereby amended to read as follows:~~~~614.4 Exhaust installation. Exhaust ducts for clothes dryers shall terminate on the outside of the building and shall be equipped with a back-draft damper. Dryer exhaust ducts may terminate at approved exterior louvers with not less than 1/2" openings in any direction. Screens shall not be installed at the duct termination. Ducts shall not be connected or installed with sheet metal screws or other fasteners that will obstruct the flow. Clothes dryer exhaust ducts shall not be connected to a vent connector, vent or chimney. Clothes dryer exhaust ducts shall not extend into or through ducts or plenums.~~**Amendments to Chapter 17.07 MICC, International Fire Code.**

MICC 17.07 "INTERNATIONAL FIRE CODE" is hereby amended as follows:

**17.07.010 Adoption.**

The ~~2015~~2018 Edition of the International Fire Code (IFC), as adopted and amended by the State Building Code Council in Chapter 51-54 WAC, as published by the International Code Council, is adopted by reference, together with the amendments and additions set forth below. The codes, appendices, and standards set forth in this chapter shall be filed with the city clerk and a copy made available for use and examination by the public, pursuant to RCW 35A.12.140.

The following appendices of the ~~2015~~2018 Edition of the International Fire Code are also adopted by reference: Appendix B – Fire-Flow Requirements for Buildings; Appendix C – Fire Hydrant Locations and Distribution; Appendix D – Fire Apparatus Access Roads; and Appendix J – Building Information Sign.

The geographic limits referred to in certain sections of the ~~2015~~2018 International Fire Code are hereby established as follows:

Section 6104.2 (geographic limits in which the storage of liquefied petroleum gas is restricted for the protection of heavily populated or congested areas): Zones TC, MF-2, MF-3 and PI as defined in MICC Title 19, Unified Land Development Code.

The ~~2015~~2018 International Wildland Urban Interface Code is included in this code as Section ~~8100~~8200 with amendments found in Appendix Chapter ~~KN~~.

Exceptions. The provisions of this code do not apply to temporary growing structures used solely for the commercial production of horticultural plants including ornamental plants, flowers, vegetables, and fruits. "Temporary growing structure" means a structure that has the sides and roof covered with polyethylene, polyvinyl, or similar flexible synthetic material and is used to provide plants with either frost protection or increased heat retention. A temporary growing structure is not considered a building for purposes of this code.

The provisions of this code do not apply to the construction, alteration, or repair of temporary worker housing except as provided by rule adopted under Chapter 70.114A RCW or Chapter 37, Laws of 1998 (2SSB 6168). "Temporary worker housing" means a place, area, or piece of land where sleeping places or housing sites are provided by an employer for his or her employees or by another person, including a temporary worker housing operator, who is

providing such accommodations for employees, for temporary, seasonal occupancy, and includes “labor camps” under RCW [70.54.110](#). The manufacture, storage, handling, sale and use of fireworks shall be governed by Chapter [70.77](#) RCW and by Chapter [212-17](#) WAC and local ordinances consistent with Chapter [212-17](#) WAC.

#### **17.07.020 Amendments and additions.**

A. IFC Section 102.7 Amended – Referenced Codes and Standards. Section 102.7 of the International Fire Code is hereby amended to read as follows:

Section 102.7 Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Chapter 80. Such codes and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference as determined or modified by the fire code official. Where differences occur between the provisions of this code and the referenced standards, the provisions of this code shall apply.

B. IFC Section 104.1.2 Added - Indigent Housing Guidelines.

104.1.2 Indigent Housing Guidelines. The fire code official is hereby authorized to develop a policy regarding application and exemption of construction codes for temporary homeless shelters in accordance with WAC 51-16-030 Exemptions for indigent housing guidelines, now or as hereafter amended.

~~BC~~—IFC Section 104.10.1 Amended – General Authority and Responsibilities, Assistance from Other Agencies. Section 104.10.1 of the International Fire Code is hereby amended to read as follows:

Section 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 code official.

~~CD~~—IFC Section 104.11.2 Amended – General Authority and Responsibilities, Obstructing Operations. Section 104.11.2 of the International Fire Code is hereby amended to read as follows:

Section 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.

~~DE~~—IFC Section 105.1.4 Added – Permits, Construction Permit Fees. Section 105.1.4 of the International Fire Code is hereby added to read as follows:

Section 105.1.4 Construction permit fees. Fees will be assessed for each construction permit issued under this Code. Fees shall be established by resolution of the city council.

~~EF~~—IFC Section 105.1.5 Added – Permits, Operational Permit Fees. Section 105.1.5 of the International Fire Code is hereby added to read as follows:

Section 105.1.5 Operational permit fees. Fees may be charged annually for each type of operational permit. Fees shall be established by resolution of the city council.

~~FG~~—IFC Section 105.6.49 Added – Food Trucks. Section 105.6.49 of the International Fire Code is hereby added to read as follows:

Section 105.6.49 An operational permit is required to operate a food truck.

H. IFC Section 105.6.30 Amended – Mobile Food Preparation Vehicles. Section 105.6.30 of the International Fire Code is hereby amended to read as follows:

Mobile Food Preparation Vehicle. Mobile food preparation vehicles that are equipped with appliances that produce smoke or grease-laden vapors or utilize LP-gas systems or CNG systems for the purpose of preparing and serving food to the public. Vehicles intended for private recreation shall not be considered mobile food preparation vehicles.

104.6.30.1 Valid operational permits issued by any other Municipality, County, or Authority Having Jurisdiction may be considered upon approval of the Fire Marshal and are maintained in accordance with the conditions of the original permit.

I. IFC Section 105.7.13 Added – Emergency Power Supply Systems. Section 105.7.13 of the International Fire Code is hereby added to read as follows:

Section 105.7.2643 Emergency Power Supply Systems. A construction permit is required for the installation of a required emergency power supply system that provides emergency power for any life safety device or system. Examples as follows but not limited to elevators, escalators, systems to prevent explosions or detonations, life maintaining medical systems, etc.

J. IFC 106.8 Amended – Overcrowding. Section 108.6 of the International Fire Code is hereby amended to read as follows:

Section 108.6 Overcrowding. Overcrowding or admittance of any person beyond the approved capacity of a building or portion thereof shall not be allowed. The fire code official, upon finding any overcrowding conditions or obstruction 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 to reduce the overcrowding or to cause the event to be stopped until such condition or obstruction is corrected.

K. IFC 108.7 Amended - Unauthorized Tampering. Section 108.7 of the International Fire Code is hereby amended to read as follows:

Section 108.7 Unauthorized Tampering. Signs, tags, or seals posted or affixed by the fire code official or their designee shall not be mutilated, destroyed, or tampered with or removed without authorization from the fire code official.

L. IFC Section ~~108.1~~109.1 Amended – Board of Appeals, Board of Appeals Established. Section 108.1 of the International Fire Code is hereby amended to read as follows:

Section ~~108.1~~109.1 General. The hearing examiner shall hear and decide appeals of orders, decisions or determinations made by the fire code official relative to the application and interpretation of the International Fire Code. Appeals shall follow the process described in MICC 17.14.020 and 19.15.130.

M. IFC Section ~~108.2~~109.2 Amended – Board of Appeals, Limitations on Authority. Section 108.2 of the International Fire Code is hereby amended to read as follows:

Section ~~108.2~~109.2 Limitations on authority. An application for appeal shall be based on a claim that the true intent of the International Fire Code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of the International Fire Code do not fully apply or an equally good or better form of construction is proposed.

The hearing examiner shall have no authority relative to interpretation of the administrative provisions of the International Fire Code nor shall the hearing examiner have the authority to waive requirements of either this code or of other codes, appendices and referenced code standards adopted by or through this code.

~~N.J.~~ IFC Section 202 Amended – Definitions, High-Rise Building. Section 202 of the International Fire Code is hereby amended to read as follows:

HIGH-RISE BUILDING. A building with an occupied floor or rooftop located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access.

~~OK.~~ IFC Section 307 Amended – Open Burning, Recreational Fires, and Portable Outdoor Fireplaces. Section 307 of the International Fire Code is hereby amended to read as follows:

307.1 General. A person shall not kindle or maintain or authorize to be kindled or maintained any open burning unless conducted and approved in accordance with Sections 307.1.1 through 307.5

307.1.1 Prohibited open burning. Open burning shall be prohibited at all times in compliance with a permanent ban on open burning established by the Puget Sound Clean Air Agency in September of 1992.

Exceptions:

1. Bonfires
2. Recreational Fires
3. Portable outdoor fireplaces
4. Fire Department Training Fires

307.2 Permit Required.

A permit shall be obtained from the fire code official in accordance with Section 105.6 prior to conducting a bonfire, recreational fire or portable outdoor fireplace fire. Application for such approval shall only be presented by and permits issues to the owner of the land in which the fire is to be kindled.

307.2.1 Bans on fires due to air quality or fire danger.

If the Puget Sound Clean Air Agency issues a ban due to air quality, or if a fire and life safety burn ban is issued by the City of Mercer Island and/or the King County Fire Marshal's Office all fires are prohibited. In it is the responsibility of the property owner where the fire is to be constructed to ensure no such ban exists prior to starting any fire.

307.3 Extinguishment authority. When any fire cerates or adds to a hazardous situation, permit conditions are not adhered to, or a required permit has not been obtained, the fire code official is authorized to order the extinguishment of the fire.

307.4 Location. The location for the fires shall be as follows:

307.4 Location. The location for the fires shall be as follows:

307.4.1 Bonfires

A bonfire shall not be constructed within 50 feet (15240 mm) of a structure or combustible material unless the fire is contained in a barbeque pit. Conditions which could cause a fire to spread within 50 feet (15244 mm) of a structure shall be eliminated prior to ignition.

307.4.2 Recreational Fires

Recreational fires shall not be constructed within 25 feet (7620 mm) of a structure or combustible material. Conditions that could cause a



fire to spread within 25 feet (7620 mm) of a structure shall be eliminated prior to ignition.

#### 307.4.3 Portable Outdoor Fireplaces

Portable outdoor fireplaces shall be used in accordance with the manufacturer's instructions and shall not be operated within 15 feet (3048 mm) of a structure of combustible material.

#### 307.5 Attendance.

Bonfires, recreational fires and use of portable fireplaces shall be constantly attended until the fire is extinguished. Not fewer than one portable fire extinguisher complying with Section 906 with a minimum of 4-A rating or other approved on-site fire -extinguishing equipment, such as dirt, sand, water barrel, garden hose or water truck, shall be available for immediate utilization.

**PK.** IFC Section 308.3 Amended – Open Flames, Group A Occupancies. Section 308.3 of the International Fire Code is hereby amended to read as follows:

Section 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.

**QL.** IFC Section 314.4 Added – Indoor Displays, Vehicles. Section 314.4 of the International Fire Code is hereby amended to read as follows:

Section 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. Vehicles, fueled equipment, boats or other motorcraft are not fueled or defueled within the building.

**R.** IFC Section 401 – Amended Evacuation Required. Section 401.9 of the International Fire Code is hereby amended to read as follows:

Section 401.9 Evacuation required. In the event of activation of a fire, emergency alarm, or at the direction of the fire code official, occupants of the building or portion of the building in which the alarm is activated shall make a safe and orderly evacuation



out of the building, or as provided in the building's fire safety and evacuation or high-rise operations plan.

Exceptions:

1. Where the occupant's physical or other disability make the occupant unable to evacuate without assistance and no assistance is immediately available, or;
2. Where the presence of smoke, fire, structural collapse or other hazard or obstruction in the occupant's means of egress make evacuation unsafe.

~~SM.~~—IFC Section 501.1 Amended – General, Scope. Section 501.1 of the International Fire Code is hereby amended to read as follows:

Section 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.

~~IN.~~—IFC Section 503 Amended – Fire Apparatus Access Roads. Section 503 of the International Fire Code is hereby adopted and amended to read as follows:

Section 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.

#### 503.1.1 Buildings and facilities.

Approved fire apparatus access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet (45 720 mm) of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility.

Exception: The fire code official is authorized to increase the dimension of 150 feet (45 720 mm) where:

1. The building is equipped throughout with an approved automatic sprinkler system installed in accordance with Sections 903.3.1.2 or 903.3.1.3 for 1 and 2 family dwellings or Section 903.3.1.1 for all other buildings.
2. Fire apparatus access roads cannot be installed because of location on property, topography, waterways, nonnegotiable grades or other similar conditions, and an approved alternative means of fire protection is provided.

#### 503.1.2 Additional access.

The fire code official is authorized to require more than one fire apparatus access road based on the potential for impairment of a single road by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access.

#### 503.1.3 High-piled storage.

Fire department vehicle access to buildings used for high-piled combustible storage shall comply with the applicable provisions of Chapter 32.

#### 503.2 Specifications.

Fire apparatus access roads shall be installed and arranged in accordance with Sections 503.2.1 through 503.2.2.

##### 503.2.1 Dimensions.

Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm), exclusive of shoulders, except for approved security gates in accordance with Appendix D Section D103.5, and an unobstructed vertical clearance of not less than 13 feet 6 inches (4115 mm).

#### 503.2.2 Authority.

The fire code official shall have the authority to require an increase in the minimum access widths where they are inadequate for fire or rescue operations.

#### 503.4 Obstruction of fire apparatus access roads.

Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. The minimum widths and clearances established in Section 503.2.1 shall be maintained at all times.

#### 503.4.1. Traffic calming devices.

Traffic calming devices shall be prohibited unless approved by the fire code official.

**EU**—IFC Section 505.1 Amended – Address Identification. Section 505.1 of the International Fire Code is hereby amended to read as follows:

Section 505.1 – Address identification. New and existing buildings shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be not less than six (6) inches high with a minimum stroke width of 1/2 inch. Where required by the fire code official, address identification shall be provided in additional approved locations to facilitate emergency response. Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Address identification shall be maintained.

**PV**—IFC Section 507.3 Amended – Fire Protection Water Supplies, Fire-Flow. Section 507.3 of the International Fire Code is hereby amended to read as follows:

Section 507.3 Fire-flow. Fire-flow requirements for buildings or portions of buildings and facilities shall be determined by an approved method and Appendix B.

#### EXCEPTIONS:

1. 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. In rural and suburban areas in which adequate and reliable water supply systems do not exist, the fire code official is authorized to utilize NFPA 1142 or the International Wildland-Urban Interface Code.

**QW**—IFC Section 507.5.1 Amended – Fire Hydrant Systems, Where Required. Section 507.5.1 of the International Fire Code is hereby amended to read as follows:

Section 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 150 feet from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the fire code official.

## Exception:

For buildings, one- and two-family dwellings and Group R-3 and Group U occupancies equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1, 903.3.1.2, or 903.3.1.3, the distance requirement shall be 600 feet (183 m).

~~RX~~—IFC Section 507.5.1.1 Amended – Hydrant for Standpipe Systems. Section 507.5.1.1 of the International Fire Code is hereby amended to read as follows:

507.5.1.1 Hydrant for standpipe and fire sprinkler systems.

Buildings equipped with a standpipe System installed in accordance with Section 905 or a fire sprinkler system installed in accordance with Section 903 shall have a fire hydrant within 15 feet of the fire department connections.

Exception: The distance shall be permitted to exceed 15 feet where approved by the fire code official.

~~YS~~ IFC Section 510 Amended – Emergency Responder Radio Coverage. Section 510 of the International Fire Code is hereby amended to read as follows:

510.1 Emergency responder radio coverage in new buildings. ~~All new buildings shall have~~ Approved radio coverage for emergency responders within the building meeting any of the following conditions: ~~based upon the existing coverage levels of the public safety communication systems of the jurisdiction at the exterior of the building. This section shall not require improvement of the existing public safety communication system.~~

1. High rise buildings;

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. Buildings or structures where the Fire or Police Chief determined that in-building radio coverage is critical because of its unique design, location, or occupancy.

The radio coverage system shall be installed in accordance with Sections 501.4 through 510.5.5 of this code and within the provision of NDPA 1221 (2019). This section shall not required the improvement of the existing public safety communication systems.

When determining if the minimum signal strength referenced 510.4.1.1 exists at a subject building, the signal strength shall be measured at any point on the exterior of the building up to the highest point of the roof.

## Exceptions:

~~1. Where approved by the building official and the fire code official, a wired communication system in accordance with Section 907.2.13.2 shall be permitted to be installed or maintained instead of an approved radio coverage system.~~

~~2. Where it is determined by the fire code official that the radio coverage system is not needed.~~ Buildings and areas of buildings that have a minimum radio coverage signal strength of the King County Regional 800mhz Radio System within the building in accordance with Section 510.4.1 without the use of a radio coverage system.

~~3.~~ In facilities where emergency responder radio coverage is required and such systems, components or equipment required could have a negative impact on the normal operations of that facility, the fire code official shall have the authority to accept an automatically activated emergency responder radio coverage system.

3. One- and two-family dwellings and townhouses.

4. Subject to the approval of the fire code official, and upon adoption of the local jurisdiction, buildings other than high-rise buildings, colleges, universities and buildings used primarily occupied by Group E or I occupancies that have completed a Mobile Emergency Radio Coverage application and submitted payment as outlined in the application.

~~4. Buildings constructed primarily of wood frame that do not have storage or parking areas that extend below grade.~~

~~5. Buildings thirty-five (35) feet high (As defined by International Building Code Section 502) or less that do not have below grade storage or parking areas.~~

~~6. One and two family dwellings and townhouses.~~

510.4.1 Emergency responder communication enhancement system signal strength. The building shall be considered to have acceptable emergency responder communications enhancement system coverage when signal strength measurements in 95 percent of all areas on each floor of the building meet the signal strength requirements in Sections 510.4.1.1 through 510.4.1.3.

Exception: Critical areas, such as the fire command center(s), the fire pump room(s), interior exit stairways, exit passageways, elevator lobbies, standpipe cabinets, sprinkler sectional valve locations, and other areas required by the fire code official, shall be provided with 99 percent floor area radio coverage.

510.4.1.1 Minimum signal strength into the building. The minimum inbound signal strength shall be sufficient to provide usable voice communications throughout the coverage area as specified by the fire code official. The inbound signal level shall be a minimum of -95dBm in 95% of the coverage area and 99% in critical areas and sufficient to provide not less than a Delivered Audio Quality (DAQ) of 3.0 or an equivalent Signal-to-Interference-Plus-Noise Ratio (SINR) applicable to the technology for either analog or digital signals.

510.4.1.2 Minimum signal strength out of the building. The minimum outbound signal strength shall be sufficient to provide usable voice communications throughout the coverage area as specified by the fire code official. The outbound signal level shall be sufficient to provide not less than a DAQ of 3.0 or an equivalent SINR applicable to the technology for either analog or digital signals. A minimum signal strength of -95 dBm shall be received by the King County Regional 800 MHz 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 510.4.2.8 and NFPA 1221 (2019).

510.4.2.1 Amplification systems and components. Buildings and structures that cannot support the required level of radio coverage shall be equipped with systems and components to enhance the public safety radio signals and achieve the required level of radio coverage specified in Sections 510.4.1 through 510.4.1.3. Public safety communications enhancement systems utilizing radio-frequency-emitting devices and cabling shall be allowed by the Public Safety Radio System Operator. Prior to installation, all RF-emitting devices shall have the certification of the radio licensing authority and be suitable for public safety use.

510.4.2.2 Technical criteria. The Public Safety Radio System Operator shall provide the various frequencies required, the location of radio sites, the effective radiated power of radio sites, the maximum propagation delay in microseconds, the applications being used and other supporting technical information necessary for system design upon request by the building owner or owner's representative.

510.4.2.3 Power supply sources. Emergency responder radio coverage systems shall be provided with dedicated standby batteries or provided with 2-hour standby batteries and connected to the facility generator power system in accordance with Section 1203. The standby power supply shall be capable of operating the emergency responder radio coverage system at 100-percent system capacity for a duration of not less than 12 hours.

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

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

Exception: Listed battery systems that are contained in integrated battery cabinets.

2. Battery systems used for the emergency power source shall be contained in a NEMA 3R or higher-rated cabinet, IP65-type waterproof cabinet or equivalent.

3. Equipment shall have FCC or other radio licensing authority certification and be suitable for public safety use prior to installation.

4. Where a donor antenna exists, isolation shall be maintained between the donor antenna and all inside antennas to not less than 20dB greater than the system gain under all operating conditions.

5. Bi-Directional Amplifiers (BDAs) used in emergency responder radio coverage systems shall be fitted with anti-oscillation circuitry and per-channel AGC .

6. The installation of amplification systems or systems that operate on or provide the means to cause interference on any emergency responder radio coverage networks shall be coordinated and approved by the Public Safety Radio System Operator.

7. Unless otherwise approved by the Public Safety Radio System Operator, only channelized signal boosters shall be permitted.

Exception: Broadband BDA's may be utilized when specifically authorized in writing by the Public Safety Radio System Operator.

510.4.2.5 System monitoring. The emergency responder radio enhancement system shall include automatic supervisory and trouble signals that are monitored by a supervisory service and are annunciated by the fire alarm system in accordance with NFPA 72. The following conditions shall be separately annunciated by the fire alarm system, or, if the status of each of the following conditions is individually displayed on a dedicated panel on the radio enhancement system, a single automatic supervisory signal may be annunciated on the fire alarm system indicating deficiencies of the radio enhancement system:

1. Loss of normal AC power supply.
2. System battery charger(s) failure.
3. Malfunction of the donor antenna(s).
4. Failure of active RF-emitting device(s).
5. Low-battery capacity at 70-percent reduction of operating capacity.
6. Active system component malfunction.

7. Malfunction of the communications link between the fire alarm system and the emergency responder radio enhancement system.

510.5 Installation requirements. The installation of the public safety radio coverage system shall be in accordance with NFPA 1221 and Sections 510.5.1 through 510.5.7.

510.5.1 Approval prior to installation. Amplification systems capable of operating on frequencies licensed to any public safety agency by the FCC or other radio licensing authority shall not be installed without prior coordination and approval of the Public Safety Radio System Operator.

510.5.2 Minimum qualifications of personnel. The minimum qualifications of the system designer and lead installation personnel shall include both of the following:

1. A valid FCC-issued general radio telephone operators' license.
2. Certification of in-building system training issued by an approved organization or approved school, or a certificate issued by the 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% two-way coverage on each floor of the building.~~

~~A report shall be submitted to the Mercer Island 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 Mercer Island 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 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. 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 areas in order to be more statistically accurate. In such event, a maximum of four (4) nonadjacent areas will be allowed to fail the test. After the eighty (80) area tests, if the system continues to fail, the building owner shall have the system altered to meet the 95% coverage requirement.~~
- ~~5. A spot located approximately in the center of a grid area will be selected for the test, 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 has been selected, prospecting for a better spot within the grid area is not permitted. The gain values of all amplifiers shall be measured and the results kept on file with the building owner so that the measurements can be verified each year during the annual tests. In~~



~~the event that the measurement results become lost, the building owner will be required to rerun the acceptance test to reestablish the gain values.~~

~~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.~~

510.5.3 Acceptance test procedure. Where an emergency responder radio coverage system is required, and upon completion of installation, the building owner shall have the radio system tested to verify that two-way coverage on each floor of the building is in accordance with Section 510.4.1. The test procedure shall be conducted as follows:

1. Each floor of the building shall be divided into a grid of 20 approximately equal test areas, with a maximum test area size of 6,400 square feet. Where the floor area exceeds 128,000 square feet, the floor shall be divided into as many approximately equal test areas as needed, such that no test area exceeds the maximum square footage allowed for a test area.

2. Coverage testing of signal strength shall be conducted using a calibrated spectrum analyzer for each of the test grids. A diagram of this testing shall be created for each floor where coverage is provided, indicating the testing grid used for the test in Section 510.5.3(1), and including signal strengths and frequencies for each test area. Indicate all critical areas.

3. Functional talk-back testing shall be conducted using two calibrated portable radios of the latest brand and model used by the agency's radio communications system or other equipment approved by the fire code official. Testing shall use Digital Audible Quality (DAQ) metrics, where a passing result is a DAQ of 3 or higher. Communications between handsets shall be tested and recorded in the grid square diagram required by section 510.5.3(2): each grid square on each floor; between each critical area and a radio outside the building; between each critical area and the fire command center or fire alarm control panel; between each landing in each stairwell and the fire command center or fire alarm control panel.

4. Failure of more than 5% of the test areas on any floor shall result in failure of the test.

Exception:

1. Critical areas shall be provided with 99 percent floor area coverage.

5. In the event that two of the test areas fail the test, in order to be more statistically accurate, the floor shall be permitted to be divided into 40 equal test areas. Failure of not more than two nonadjacent test areas shall not result in failure of the test. If the system fails the 40-area test, the system shall be altered to meet the 95-percent coverage requirement.

6. A test location approximately in the center of each test area shall be selected for the test, with the radio enabled to verify two-way communications to and from the outside of the building through the public agency's radio communications system. Once the test location has been selected, that location shall represent



the entire test area. Failure in the selected test location shall be considered to be a failure of that test area. Additional test locations shall not be permitted.

7. 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.

8. 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 the time of installation and at subsequent annual inspections.

9. Systems incorporating Class B signal booster devices or Class B broadband fiber remote devices shall be tested using two portable radios simultaneously conducting subjective voice quality checks. One portable radio shall be positioned not greater than 10 feet (3048 mm) from the indoor antenna. The second portable radio shall be positioned at a distance that represents the farthest distance from any indoor antenna. With both portable radios simultaneously keyed up on different frequencies within the same band, subjective audio testing shall be conducted and comply with DAQ levels as specified in Sections 510.4.1.1 and 510.4.1.2.

10. Documentation maintained on premises. At the conclusion of the testing, and prior to issuance of the building Certificate of Occupancy, the building owner or owner's representative shall place a copy of the following records in the DAS enclosure or the building engineer's office. The records shall be available to the fire code official and maintained by the building owner for the life of the system:

a. A certification letter stating that the emergency responder radio coverage system has been installed and tested in accordance with this code, and that the system is complete and fully functional.

b. The grid square diagram created as part of testing in Sections 510.5.3(2) and 510.5.3(3).

c. Data sheets and/or manufacturer specifications for the emergency responder radio coverage system equipment; back up battery; and charging system (if utilized).

d. A diagram showing device locations and wiring schematic.

e. A copy of the electrical permit.

11. Acceptance test reporting to fire code official. At the conclusion of the testing, and prior to issuance of the building Certificate of Occupancy, the building owner or owner's representative shall submit to the fire code official a report of the acceptance test by way of the department's approved fire records management procedure.

~~510.6.3 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.~~

510.6.4 Identification. 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."

~~7Z.~~ IFC Section 602 Is Amended – Building Services and Systems, Definitions. Section 602.1 – Definitions of the International Fire Code is hereby amended to read as follows:

POWER TAP is a listed device for indoor use consisting of an attachment plug on one end of a flexible cord and two or more receptacles on the opposite end, and has overcurrent protection.

~~UAA~~—IFC Section 901.4 Amended – Installation. Section 901.4.7 of the International Fire Code is hereby added to read as follows:

901.4.7 Additions, change of use, alterations and repairs to buildings.

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 cause the building to be brought up to current code requirements for fire protection systems. Subject to the approval of the fire code official, a phasing plan of up to five years is permitted on sprinkler systems only.

901.4.7.2 Alterations and repairs. When the value of all alterations or repairs performed within a sixty-month period exceeds 50 percent of the value of the building, the fire extinguishing systems and fire detection systems shall be installed throughout as for new construction. For the purposes of this section, the value of the building shall be determined by an approved method by the fire code official.

~~VBB~~—IFC Section 903.2 Amended – Automatic Sprinkler Systems, Where Required. Section 903.2 of the International Fire Code is hereby amended to read as follows:

Section 903.2 Where required. Approved automatic sprinkler systems shall be installed in all newly constructed buildings and structures with a gross floor area of 5,000 square feet or greater and in the locations described in Sections 903.2.1 through 903.2.12. [L. IFC Section 903.2.9 \(6\) Amended – Group S-1. Section 903.2.9 \(6\) of the International Fire Code is hereby amended to read as follows:](#)

[903.2.9 \(6\)](#)

[6. A Group S-1 occupancy used for self-storage where the fire area exceeds 2,500 square feet.](#)

~~WCC~~—IFC Section 903.3.1.2 Amended – NFPA 13R Sprinkler Systems. Section 903.3.1.2 of the International Fire Code is hereby amended to read as follows:

Section 903.3.1.2 NFPA 13R sprinkler systems.

Automatic sprinkler systems in one and two family dwellings shall be permitted to be installed throughout in accordance with NFPA 13R. One and two family dwellings 10,000 square feet and larger shall be installed in accordance with NFPA 13R or 13. Systems in accordance with NFPA 13R shall not be installed in R-1 or R-2 Occupancies.

~~XDD~~—IFC Section 903.4.3 Amended – Sprinkler System Monitoring and Alarms, Floor Control Valves. Section 903.4.3 of the International Fire Code is hereby amended to read as follows:

Section 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.

Exception: When approved by the Fire Code Official in NFPA 13D and NFPA 13R Systems.

~~YEE~~—IFC Section 905.8 Added – Standpipe Systems, Dry Standpipes. Section 905.8 of the International Fire Code is hereby added to read as follows:

Section 905.8 Dry standpipes. Dry standpipes shall not be installed.

Exception: Where subject to freezing and in accordance with NFPA 14 when approved by the Fire Code Official.

~~ZFF~~—IFC Section 907.2 Added – Where Required – New Buildings and Structures. Section 907.2 of the International Fire Code is hereby added 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 in accordance with Sections 907.2.1 through 907.2.23. For all newly constructed buildings with a gross floor area of 3,000 or greater square feet an approved manual and automatic fire alarm system shall be installed.

Exceptions:

1. One- and two-family dwellings, Group R-3, Group R-4, and Group U Occupancies having adequate fire-flow and approved access. Dwelling units shall have interconnected single station smoke detectors in accordance with RCW [48.48.140](#) and chapter [212-10](#) WAC.

2. Buildings under 10,000 square feet that are protected throughout by an approved and monitored automatic sprinkler system installed in accordance with section 903.3.1.1 unless required by other sections of this code.

The system shall 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 for fire alarm systems employing automatic fire detectors or water-flow 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.

Exceptions:

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

2. The manual fire alarm box is not required for Group R-2 occupancies unless required by the fire code official to provide a means for fire watch personnel to initiate an alarm during a sprinkler system impairment event. Where provided, the manual fire alarm box shall not be located in an area that is accessible to the public.

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 a manual and automatic fire alarm system in accordance with the applicable requirements in this section and other sections that may apply.

Additions. Additions to existing buildings shall meet the requirements of, Remodels and Tenant improvements, for the whole building and additionally provide the same coverage level to the addition as the rest of the building unless authorized by the Fire Code Official.

~~AAGG~~—IFC Section 1103.2 Amended – Emergency Responder Radio Coverage in Existing Buildings. Section 1103.2 of the International Fire Code is hereby 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 or Police Chief determines that lack of minimum signal strength poses an undue risk to emergency responders or occupants that cannot be reasonably mitigated by other means.

HH. IFC Section 901.9 Amended Termination of monitoring service. Section 901.9 of the International Fire Code is hereby amended to read as follows:

901.9 Termination of monitoring service. For fire alarm systems required to be monitored by this code, notice shall be required to be made to the fire code official whenever alarm monitoring services are terminated. Notice shall be made in writing ~~by the provider of the monitoring service being terminated~~ to the fire code official 30 days prior to the service being terminated.

II. IFC Section 1103.11 Amended- Building Information Card. Section 1103.11 of the International Fire Code is hereby amended to read as follows:

**1103.11 Building Information Card.** An approved Building Information Card shall be located in each fire command center, high-rise buildings, hospitals, multiple buildings on common platforms, or other target hazard building as determined by the fire code official including, but is not limited to, all of the following information:

**1103.11.1 General Building Information**

General building information that includes: property name, address, the number of floors in the building above and below grade, use and occupancy classification (for mixed uses, identify the different types of occupancies on each floor) and the estimated building population during the day, night and weekend;

**1103.11.2 Building Emergency Contact Information**

Building emergency contact information that includes: a list of the building's emergency contacts including but not limited to the building manager, building engineer and tier respective work phone number, cell phone number and email addresses.

**1103.11.3 Building Construction Information**

Building construction information that includes: the type of the building construction including but not limited to the floors, walls, columns and roof assembly.

**1103.11.4 Exit Stairway Information**

Exit access stairway and exit stairway information that includes: number of the exit access stairways and exit stairways in building; each exit access stairway and exit stairway designation and floors served; location where each exit access stairway and exit stairway discharges; interior exit stairways that are pressurized; exit stairways provided with emergency lighting; each exit stairway that allows reentry; exit stairways providing roof access; elevator car numbers and respective floors that are served; location of elevator machine room, control rooms and control spaces; location of sky lobby; and location of freight elevator banks;

**1103.11.5 Building Services and System Information**

Building services and system information that includes location of the mechanical rooms, location of the building management system, location and capacity of all

fuel and oil tanks, location of emergency generator and location of natural gas services.

#### **1103.11.6 Fire Protection Information**

Fire protection system information that includes location of standpipes, location of the fire pump room, location of fire department connections, floors protected by automatic sprinklers, and location of different types of automatic sprinkler systems installed including but not limited to dry, wet and pre-action.

#### **1103.11.7 Hazardous Material Information**

Hazardous material information that includes: location and quantity of hazardous material.

JJ. IFC Section 3308.9 Amended- Job Shacks and other temporary structures. Section 3308.9 of the International Fire Code is hereby amended to read as follows:

3308.9 Job shacks and other temporary structures. Job shacks and other temporary structures located within or less than 20' from the permanent building shall be:

1. Constructed of non-combustible materials or 1-hour fire-restive construction.
2. Shall not be equipped with fuel fired heaters.
3. Shall be equipped with monitored fire alarm system when located below grade.
4. Shall not function as non-associated construction offices unless protected with automatic sprinkler systems.

KK. IFC Section 3308.10 Added- Additional requirements. Section 3308.10 or the International Fire Code is hereby amended to read as follows:

3308.10 Additional Requirements for wood-frame buildings more than 50,000 square feet in area.

#### 3308.10.1 Job Site Security

The job site shall be secured with controlled access once above grade combustible construction has begun together with off hours guard service, motion-controlled surveillance or both.

~~BBLL.~~ IFC Section 5003.9 Amended – General Requirements, General Safety Precautions. Section 5003.9 of the International Fire Code is hereby amended to read as follows:

Section 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.

~~CCMM.~~ IFC Section 5003.9.11 Added – Manufacturer's Limitations. Section 5003.9.11 of the International Fire Code is hereby 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.

NN. IFC Section 5307.5.2 Deleted – Carbon Dioxide (CO2) Systems Used in Beverage Dispensing Applications. Emergency Alarm Systems. Section 5307.5.2 of the International Fire Code is hereby deleted.

~~DD.— IFC Section 5307.5.2 Amended — Carbon Dioxide (CO<sup>2</sup>) Systems Used in Beverage Dispensing Applications. Emergency Alarm Systems. Section 5307.5.2 of the International Fire Code is hereby added 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/m<sup>3</sup>).~~

~~3. Activation of the emergency alarm system shall initiate a local alarm at the entrance to room(s) and inside the room(s) where CO<sup>2</sup> systems are installed.~~

~~4. A warning sign is required at the entrance: "Carbon Dioxide Alarm. Do not enter. Call 911"~~

~~EEQQ.— IFC Appendix B, Section B104.2 Deleted – Fire-Flow Calculation Area, Area Separation. Appendix B, Section B104.2 of the International Fire Code is hereby deleted.~~

~~FFPP.~~ IFC Appendix B, Table B105.2 Amended – Required Fire-Flow for Buildings Other Than One- and Two-Family Dwellings, Group R-3 and R-4 Buildings and Townhouses is hereby added to read as follows:

**TABLE B105.2 REQUIRED FIRE-FLOW FOR BUILDINGS OTHER THAN ONE- AND TWO-FAMILY DWELLINGS, GROUP R-3 AND R-4 BUILDINGS AND TOWNHOUSES**

<b>AUTOMATIC SPRINKLER SYSTEM (Design Standard)</b>	<b>MINIMUM FIRE-FLOW (gallons per minute)</b>	<b>FLOW DURATION (hours)</b>
No automatic sprinkler system	Value in Table B105.1(2)	Duration in Table B105.1(2)
Section 903.3.1.1 of the International Fire Code	50% of the value in Table B105.1(2) <sup>a</sup>	Duration in Table B105.1(2) at the reduced flow rate
Section 903.3.1.2 of the International Fire Code	50% of the value in Table B105.1(2) <sup>a</sup>	Duration in Table B105.1(2) at the reduced flow rate

For SI: 1 gallon per minute = 3.785 L/m.

a. The reduced fire-flow shall be not less than 1,500 gallons per minute.

~~GGQQ.— IFC Appendix C, Section C102 Amended – Number of Fire Hydrants. Appendix C, Section C102.2 of the International Fire Code is hereby added to read as follows:~~

~~Section C102.2 Sprinkler support hydrants. One or more fire hydrants shall be designated as sprinkler support hydrants and are not included in the required fire hydrant calculations as determined by fire-flow.~~

~~HHRR.— IFC Appendix D, Section D101.1 Amended – General, Scope. Appendix D, Section D101.1 of the International Fire Code is hereby amended to read as follows:~~

~~Section D101.1 Scope. Fire apparatus access roads shall be in accordance with this appendix and all other applicable requirements of the International Fire Code. The requirements in this appendix may be modified by the fire code official if the building is provided with an approved automatic fire sprinkler system and/or other approved fire-protection features.~~



~~§.SS~~—IFC Appendix D, Section D105.1 Amended – Where Required. Appendix D, Section D105.1 of the International Fire Code is hereby amended to read as follows:

D105.1 Where required.

Where the vertical distance between the grade plane and the highest roof surface exceeds 30 feet (9,144 mm), approved aerial fire apparatus access roads shall be provided. For purposes of this section, the highest roof surface shall be determined by measurement to the eave of a pitched roof, the intersection of the roof to the exterior wall, or the top of parapet walls, whichever is greater.

Exception: One- and two-family dwellings, Group R-3, and Group U Occupancies.

**Amendments to Chapter 17.08 MICC, Uniform Plumbing Code.**

MICC 17.08 “UNIFORM PLUMBING CODE” is hereby amended as follows:

Sections:

17.08.010 Adoption.

The ~~2015~~ 2018 Edition of the Uniform Plumbing Code (UPC), as adopted and amended by the State Building Code Council in Chapter ~~51-56~~ WAC, as published by the International Association of Plumbing and Mechanical Officials, is adopted by reference with the following additions, deletions and exceptions: Provided, that Chapter 1, Administration, is not adopted and the Construction Administrative Code, as set forth in Chapter 17.14 MICC, shall be used in place of UPC Chapter 1, Administration. Provided, that Chapters 12 and 14 of the Uniform Plumbing Code are not adopted. Provided, that those requirements of the Uniform Plumbing Code relating to venting and combustion air of fuel-fired appliances as found in Chapter 5 and those portions of the code addressing building sewers are not adopted. The codes, appendices, and standards set forth in this chapter shall be filed with the city clerk and a copy made available for use and examination by the public, pursuant to RCW 35A.12.140.

The following appendices of the ~~2015~~ 2018 Edition of the Uniform Plumbing Code as adopted and amended by the State Building Code Council in Chapter ~~51-57~~ WAC, as published by the International Association of Plumbing and Mechanical Officials, are also adopted by reference: Appendix A – Recommended Rules for Sizing the Water Supply System; Appendix B – Explanatory Notes on Combination Waste and Vent Systems; Appendix I – Installation Standards. In addition, Appendix C – Alternate Plumbing Systems, excluding Sections C303.3, C304.0 through C601.9, is adopted by reference.

Conflicts. Where a conflict exists between the provisions of Appendix I and the manufacturer's installation instructions, the conditions of the listing and the manufacturer's installation instructions shall apply.

**Amendments to Chapter 17.09 MICC, Washington State Energy Code.**

MICC 17.09 “WASHINGTON STATE ENERGY CODE” is hereby amended as follows:

17.09.010 Adoption.

The Washington State Energy Code (WSEC), as adopted by the State Building Code Council in Chapter ~~51-11~~ 51-11C and 51-11R WAC, is adopted by reference with the following additions, deletions and exceptions: Provided, that Administration Sections ~~C106~~ C107 through C111 and ~~R106~~ R107 through R111 are not adopted and the Construction Administrative Code, as set forth in Chapter 17.14 MICC, shall be used in their place. The codes, appendices, and standards set forth in this chapter shall be filed with the city clerk and a copy made available for use and examination by the public, pursuant to RCW 35A.12.140.



Exception: The provisions of this code do not apply to temporary growing structures used solely for the commercial production of horticultural plants including ornamental plants, flowers, vegetables, and fruits. A temporary growing structure is not considered a building for the purposes of this code. However, the installation of other than listed, portable mechanical equipment or listed, portable lighting fixtures is not allowed.

### **Amendments to Chapter 17.13 MICC, Washington Cities Electrical Code.**

MICC 17.13 "WASHINGTON CITIES ELECTRICAL CODE" is hereby amended as follows:

#### **17.13.010 Short title.**

This chapter shall be known as the electrical code of the city of Mercer Island, which is hereinafter referred to as the "city of Mercer Island electrical code," "electrical code" or as "this chapter."

#### **17.13.020 Adoption.**

The ~~2014~~ 2020 Edition of the Washington Cities Electrical Code (WCEC) Part 1 and Part 3, excluding Part 2 - Administration, is adopted by reference, together with the following amendments, additions and exceptions. The Construction Administrative Code, as set forth in Chapter 17.14 MICC, shall be used in place of WCEC Part 2 - Administration. but excluding Part 2, Administration, as published by the Washington Association of Building Officials, is adopted and shall be applicable within the city, as amended, added to, and excepted in this chapter. This includes Annexes A, B and C of the National Electrical Code; Commercial Building Telecommunications Cabling Standard (ANSI/TIA-568-C Series, February 2009); Commercial Building Standard for Telecommunications Pathway and Spaces (TIA-569-B, October 2004); Commercial Building Grounding and Bonding Requirements for Telecommunications (ANSI/TIA-607-B, August 2011); Residential Telecommunications Cable Standard (ANSI/TIA/EIA 570-B-2004); and the National Electrical Safety Code (NESC C2-2012 excluding Appendixes A and B). The codes, appendices, and standards set forth in this chapter shall be filed with the city clerk and a copy made available for use and examination by the public, pursuant to RCW 35A.12.140.

#### **17.13.030 Conflicts.**

A. The requirements of this chapter will be observed where there is any conflict between this chapter and the National Electrical Code (NFPA 70), centrifugal fire pumps (NFPA 20), the emergency and standby power systems (NFPA 110), ANSI/TIA/EIA 568-B, ANSI/TIA/EIA 569-A, ANSI/TIA/EIA 607, or ANSI/TIA/EIA 570.

B. The National Electrical Code will be followed where there is any conflict between the standard for installation of stationary pumps for fire protection (NFPA 20), the standard for emergency and standby power systems (NFPA 110), ANSI/TIA/EIA 568-B, ANSI/TIA/EIA 569-A, ANSI/TIA/EIA 607, ANSI/TIA/EIA 570-B, and the National Electrical Code (NFPA 70).

C. In accordance with RCW 19.28.010(3), where the State of Washington, Department of Labor and Industries adopts a more current edition of the National Electrical Code (NFPA 70) the building official may supplement use of this code with newly adopted editions of the National Electrical Code. Provisions in the annex chapters of the National Electrical Code shall not apply unless specifically referenced in the adopting ordinance. (Ord. 10C-03 § 10).

### **Amendments to Chapter 17.14 MICC, Construction Administrative Code.**

MICC 17.14 "CONSTRUCTION ADMINISTRATIVE CODE" is hereby amended as follows:

## Sections:

17.14.010 Adoption.

17.14.020 Appeals.

17.14.010 Adoption.

The Construction Administrative Code is hereby adopted as follows:

## SECTION 101

## GENERAL

101.1 Title. These regulations shall be known as the Construction Administrative Code of the city of Mercer Island, hereinafter referred to as "this code".

101.2 Purpose. The purpose of this chapter is to provide for the administration, organization and enforcement of the construction codes adopted by the city.

101.3 Scope. The provisions of this Construction Administrative Code shall apply to grading, building, plumbing, and mechanical permits and the following "Construction Codes":

~~2015-2018~~ International Building Code – Chapter 51-50 WAC

~~2015-2018~~ International Residential Code – Chapter 51-51R WAC

~~2015-2018~~ International Mechanical Code – Chapter 51-52 WAC

~~2015-2018~~ National Fuel Gas Code (ANSI Z223.1/NFPA 54) – Chapter 51-52 WAC

~~2014-2017~~ Liquefied Petroleum Gas Code (NFPA 58) – Chapter 51-52 WAC

~~2015-2018~~ International Fuel Gas Code – Chapter 51-52 WAC

~~2015-2018~~ Uniform Plumbing Code – Chapter 51-56 and 51-57 WAC

2018 Washington State Energy Code – Chapters 51-11C and 51-11R

~~2014-2020~~ National Electrical Code as adopted and amended by the Washington Cities Electrical Code

~~2015-2018~~ International Existing Building Code – WAC 51-50-48000

~~2015-2018~~ International Swimming Pool and Spa Code – WAC 51-50-3109 and WAC 51-51-0329

101.4 Definitions. For the purpose of this chapter, certain terms, phrases, words and their derivatives shall have the meanings set forth in this section. Where terms are not defined, they shall have their ordinary accepted meanings within the context with which they are used. Webster's Third New International Dictionary of the English Language, Unabridged, latest edition, shall be considered as providing ordinary accepted meanings. Words used in the singular include the plural and the plural the singular. Words used in the masculine gender include the feminine and the feminine the masculine.

1. "Action" means a specific response complying fully with a specific request by the jurisdiction.

2. "Building service equipment" means and refers to the plumbing, mechanical and electrical equipment including piping, wiring, fixtures, and other accessories which provide sanitation, lighting, heating, ventilation, cooling, refrigeration, firefighting, and transportation facilities essential to the occupancy of the building or structure for its designated use.

3. "Complete response" means an adequate response to all requests from city staff in sufficient detail to allow the application to be processed.

4. "Occupancy" means the purpose for which a building, or part thereof, is used or intended to be used.

5. "Shall," as used in this chapter, is mandatory.

6. "Valuation" or "value" as applied to a building or portion thereof, or building service equipment, means and shall be the estimated cost to replace the building and its building service equipment in kind, based on current replacement costs. It shall also include the contractor's overhead and profit. "Valuation" or "value" as applied to a

specific scope of work associated with a permit shall be the fair market value of that scope of work including time and materials and the contractor's overhead and profit.

101.5 Appendices. Provisions in the appendices shall not apply unless specifically adopted.

101.6 Intent. The purpose of the construction codes and the Construction Administrative Code is to establish the minimum requirements to provide a reasonable level of safety, public health and general welfare through affordability, structural strength, means of egress facilities, stability, sanitation, adequate light and ventilation, energy conservation, and safety to life and property from fire, explosion and other hazards ~~attributed to the built environment~~ and to provide a reasonable level of safety to fire fighters and emergency responders during emergency operations.

101.7 Referenced Codes. The codes listed in Sections 101.8 through ~~401.5-6~~101.20 and referenced elsewhere in the construction codes and the Construction Administrative Code shall be considered part of the requirements of the construction codes and the Construction Administrative Code to the prescribed extent of each such reference.

101.8 International Building Code – Scope. The provisions of the International Building Code (IBC) shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures.

Exception: Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories above grade plane in height with separate means of egress and their accessory structures not more than three stories above grade plane in height, shall comply with this code or the International Residential Code.

101.9 International Residential Code – Scope. The provisions of the International Residential Code for One- and Two-Family Dwellings (IRC) shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, removal and demolition of detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories above grade plane in height with a separate means of egress and their accessory structures not more than three stories above grade plane in height, including adult family homes, foster family care homes and family day care homes licensed by the Washington state department of social and health services.

Exceptions:

1. Live/work units located in townhouses complying with the requirements of Section ~~419~~419.5 of the International Building Code shall be permitted to be constructed in accordance with the International Residential Code for One- and Two- Family Dwellings. Fire suppression required by Section 419 of the International Building Code where constructed under the International Residential Code for One- and Two-~~family~~Family Dwellings shall conform to Appendix ~~QU~~U.
2. Owner-occupied lodging houses with one or two guestrooms shall be permitted to be constructed in accordance with the International Residential Code for One- and Two-~~family~~Family Dwellings.
3. Owner-occupied lodging houses with three to five guestrooms shall be permitted to be constructed in accordance with the International Residential Code for One- and Two-~~family~~Family Dwellings where equipped with a fire sprinkler system in accordance with Appendix ~~QU~~U.

101.10 Electrical Code – Scope. The provisions of the Mercer Island [Electrical](#) Code apply to the installation of electric conductors, electric equipment, alterations, modifications or repairs to existing electrical installations for the following:

1. Electrical conductors, electrical equipment, and electrical raceways installed within or on public and private buildings, property or other structures.
2. Signaling and communications conductors and equipment, telecommunications conductors and equipment, fiber optic cables, and raceways installed within or on public and private buildings, property or other structures.
3. Yards, lots, parking lots, and industrial substations.
4. Temporary electrical installations for use during the construction of buildings.
5. Temporary electrical installations for carnivals, conventions, festivals, fairs, traveling shows, the holding of religious services, temporary lighting of streets, or other approved uses.
6. Installations of conductors and equipment that connect to a supply of electricity.
7. All other outside electrical conductors on the premises.
8. Optional standby systems derived from portable generators.

Exception: Installations under the exclusive control of electric utilities for the purpose of communication, transmission, and distribution of electric energy located in buildings used exclusively by utilities for such purposes or located outdoors on property owned or leased by the utilities or on public highways, streets, roads, etc., or outdoors by established rights on private property.

It is the intent of this section that this code covers all premises' wiring or wiring other than utility owned metering equipment, on the load side of the service point of buildings, structures, or any other premises not owned or leased by the utility. Also, it is the intent that this code covers installations in buildings used by the utility for purposes other than listed above, such as office buildings, warehouses, garages, machine shops, and recreational buildings which are not an integral part of a generating plant, substation, or control center.

101.11 Gas Code – Scope. The provisions of the International Fuel Gas Code (IFGC) shall apply to the installation of fuel gas piping systems, fuel gas utilization equipment, gaseous hydrogen systems and related accessories in accordance with Sections 101.2.1 through 101.2.5, except those regulated by the International Residential Code (IRC) and those utilizing LPG.

101.12 Mechanical Code – Scope. The provisions of the International Mechanical Code (IMC) shall apply to the design, installation, maintenance, alteration and inspection of mechanical systems that are permanently installed and utilized to provide control of environmental conditions and related processes within buildings. The IMC shall also regulate those mechanical systems, system components, equipment and appliances specifically addressed herein. The installation of fuel gas distribution piping and equipment, fuel gas-fired appliances and fuel gas-fired appliance venting systems shall be regulated by the International Fuel Gas Code. [References in this code to Group R shall include Group I-1, Condition 2 assisted living facilities licensed by Washington state under chapter 388-78A WAC and Group I-1, Condition 2 residential treatment facilities licensed by Washington state under chapter 246-337 WAC.](#)

Exceptions:

1. Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories high with separate means of egress and their accessory structures shall comply with the International Residential Code.
2. The standards for liquefied petroleum gas (LPG) installations shall be NFPA 58 (Liquefied Petroleum Gas Code) and ANSI Z223.1/NFPA 54 (National Fuel Gas Code).

101.12.1 Other authorities. In addition to the IMC, provisions of Chapter [480-93 WAC](#) regarding gas pipeline safety may also apply to single meter installations serving more than one building. The provisions of Chapter [480-93 WAC](#) are enforced by the Washington Utilities and Transportation Commission.

101.13 Plumbing Code – Scope. The provisions of the Uniform Plumbing Code (UPC) shall apply to the erection, installation, alteration, repair, relocation, replacement, addition to, use, or maintenance of plumbing systems, including equipment, appliances, fixtures, fittings and appurtenances, and where connected to a water or sewage system and all aspects of a medical gas system.

101.14 Property maintenance. The provisions of the Uniform Housing Code (UHC) shall apply to existing structures to provide minimum standards to safeguard life or limb, health, property, and public welfare by regulating and controlling the use and occupancy, location, and maintenance of all residential buildings and other structures within this jurisdiction.

101.15 Dangerous buildings. The provisions of the Uniform Code for the Abatement of Dangerous Buildings (UCADB) shall apply to all dangerous buildings, as defined in the UCADB, which are now in existence or which may hereafter become dangerous in this jurisdiction. The purpose of the UCADB is to provide a just, equitable and practicable method, to be cumulative with and in addition to any other remedy provided by the International Building Code, International Residential Code, Uniform Housing Code or otherwise available by law, whereby buildings or structures which from any cause endanger the life, limb, health, morals, property, safety or welfare of the general public or their occupants and may be required to be repaired, vacated, abated or demolished.

101.16 Fire prevention. The provisions of the International Fire Code (IFC) shall apply to matters affecting or relating to structures, processes, premises and safeguards from the hazard of fire and explosion arising from the storage, handling or use of structures, materials or devices; from conditions hazardous to life, property or public welfare in the occupancy or operation of structures or premises; from matters related to the construction, extension, repair, alteration or removal of fire suppression and alarm systems or fire hazards in the structure or on the premises from occupancy or operation; and from conditions affecting the safety of fire fighters and emergency responders during emergency procedures.

101.17 Energy Code – Scope. The provisions of the Washington State Energy Code (WSEC) shall apply to all matters governing the design and construction of buildings for energy efficiency. [The WSEC Residential](#) Chapter 51-11R WAC applies to residential buildings, building sites, associated systems and equipment, and [the WSEC Commercial](#) Chapter 51-11C WAC applies to commercial buildings, building sites, associated systems and equipment. [References in the commercial energy code to Group R shall include Group I-1, Condition 2 assisted living facilities licensed by Washington state under chapter 388-78A WAC and Group I-1, Condition 2 residential treatment facilities licensed by Washington state under chapter 246-337 WAC. Building areas that contain Group R sleeping units, regardless of the number of stories in height, are required to comply with the commercial sections of the energy code.](#)

101.18 Ventilation. The provisions of the mechanical code shall apply to all occupancies to govern minimum requirements for ventilation.

101.19 International Existing Building Code – Scope. [The provisions of the International Existing Building Code shall apply to the repair, alteration, change of occupancy, addition to and relocation of existing buildings.](#)  
[Exception: Detached one-and two-family dwellings and multiple single-family dwellings \(townhouses\) not more than three stories above grade plane in height with a separate](#)



means of egress, and their accessory structures not more than three stories above grade plane in height, shall comply with this code or the International Residential Code.  
~~The provisions of the International Existing Building Code shall apply to matters governing the repair, alteration, change of occupancy, addition to and relocation of existing buildings.~~

101.20 International Swimming Pool and Spa Code (ISPSC) – Scope. The provisions of this code shall apply to the construction, alteration, movement, renovation, replacement, repair and maintenance of aquatic recreation facilities, pools and spas. The pools and spas covered by this code are either permanent or temporary, and shall be only those that are designed and manufactured to be connected to a circulation system and that are intended for swimming, bathing or wading. Swimming pools, spas and other aquatic recreation facilities shall comply with the ISPSC, where the facility is one of the following, except that public swimming pool barriers are regulated by WAC [246-260-031\(4\)](#):

1. For the sole use of residents and invited guests at a single-family dwelling;
2. For the sole use of residents and invited guests of a duplex owned by the residents;
- or
3. Operated exclusively for physical therapy or rehabilitation and under the supervision of a licensed medical practitioner.

All other “water recreation facilities” as defined in RCW [70.90.110](#) are regulated under chapters [246-260](#) and [246-262](#) WAC.

## SECTION 102

### APPLICABILITY

#### 102.1 General.

1. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable. Where, in any specific case, different sections of the construction codes specify different materials, methods of construction or other requirements, the most restrictive shall govern except that the hierarchy of the codes named in RCW [19.27](#) shall govern. If there is a conflict between an adopted code and a referenced standard, the adopted code shall apply.

2. New Installations. The adopted construction codes apply to new installations. Exception: If an electrical, plumbing or mechanical permit application is received after the adopted construction codes have taken ~~effect, but~~ effect but is identified with a building permit application received prior to the effective date of the ordinance codified in this chapter, all applicable codes adopted and in force at the time of a complete building permit application will apply.

3. Existing installations. Lawfully installed existing installations that do not comply with the provisions of the adopted construction codes shall be permitted to be continued without change, except as is specifically covered in this chapter, the International Existing Building Code, the Uniform Housing Code, the International Fire Code or as is deemed necessary by the building official for the general safety and welfare of the occupants and the public. Where changes are required for correction of hazards, a reasonable amount of time shall be given for compliance, depending on the degree of the hazard.

4. Maintenance. Buildings and structures, including their electrical, plumbing and mechanical systems, equipment, materials and appurtenances, both existing and new, and parts thereof shall be maintained in proper operating condition in accordance with the original design and in a safe, hazard-free condition. Devices or safeguards that are required by the adopted construction codes shall be maintained in compliance with the code edition under which installed. The owner or the owner's designated agent shall be responsible for the maintenance of the systems and equipment. To determine

compliance with this provision, the code official shall have the authority to require that the systems and equipment be re-inspected.

5. Additions, alterations, modifications or repairs. Additions, alterations, modifications or repairs to a building or structure or to the electrical, plumbing or mechanical system(s) of any building, structure, or premises shall conform to the requirements of the adopted construction codes, without requiring those portions of the existing building or system not being altered or modified to comply with all the requirements of the adopted construction codes, except as is specifically covered in this chapter, the International Existing Building Code, the Uniform Housing Code, the International Fire Code or as is deemed necessary by the building official for the general safety and welfare of the occupants and the public. Installations, additions, alterations, modifications, or repairs shall not cause an existing building to become unsafe or to adversely affect the performance of the building as determined by the building official or designated representative. Electrical wiring added to an existing service, feeder, or branch circuit shall not result in an installation that violates the provisions of the code in force at the time the additions were made.

EXCEPTIONS: Exceptions for IRC buildings or structures include:

1. Additions with less than 500 square feet of conditioned floor area are exempt from the requirements for Whole House Ventilation Systems, Section M1505.

2. Additions or alterations to existing buildings which do not require the construction of foundations, crawlspaces, slabs or basements shall not be required to meet the requirements for radon protection in Section R332.1 and Appendix F.

102.2 Other laws. The provisions of the construction codes and the Construction Administrative Code shall not be deemed to nullify any provisions of local, state or federal law.

102.3 Application of references. References to chapter or section numbers, or to provisions not specifically identified by number, shall be construed to refer to such chapter, section or provision of the construction codes.

102.4 Existing structures and installations. The legal occupancy of any structure existing on the date of adoption of the construction codes shall be permitted to continue without change, except as is specifically covered in this chapter, the International Existing Building Code, the Uniform Housing Code, the International Fire Code or as is deemed necessary by the building official for the general safety and welfare of the occupants and the public.

102.5 Determination of substantially improved or substantially damaged existing buildings and structures in flood hazard areas. For applications for reconstruction, rehabilitation, repair, alteration, addition or other improvement of existing buildings or structures located in flood hazard areas, the building official shall determine where the proposed work constitutes substantial improvement or repair of substantial damage. Where the building official determines that the proposed work constitutes substantial improvement or repair of substantial damage, and where required by the International Existing Building Code, the building official shall require the building to meet the requirements of Section 1612 of the International Building Code.

102.6 Preliminary meeting. When requested by the permit applicant or the building official, the building official shall meet with the permit applicant prior to the application for a construction permit to discuss plans for the proposed work or change of occupancy in order to establish the specific applicability of the provisions of this code. Exception: Repairs and Level 1 alterations.

102.7 Building evaluation. The building official is authorized to require an existing building to be investigated and evaluated by a registered design professional based on the circumstances agreed upon at the preliminary meeting. The design professional



shall notify the code official if any potential nonconformance with the provisions of this code is identified.

~~102.8 Maintenance. Structures and installations, both existing and new, and parts thereof shall be maintained in proper operating condition in accordance with the original design and in a safe condition. Devices or safeguards which are required by this code shall be maintained in compliance with the code edition under which they were constructed or installed. The owner or the owner's designated agent shall be responsible for maintenance of structures and installations. To determine compliance with this provision, the building official shall have the authority to require an installation to be reinspected.~~

~~102.9 Added electrical wiring. Electrical wiring added to an existing service, feeder, or branch circuit shall not result in an installation that violates the provisions of this chapter in force at the time the additions were made.~~

102.10 Moved buildings. Buildings or structures moved into or within a jurisdiction shall comply with the provisions of this Code, the International Existing Building Code when applicable, the International Residential Code (Chapter [51-51](#) WAC), the International Building Code (Chapter [51-50](#) WAC), the International Mechanical Code (Chapter [51-52](#) WAC), the International Fire Code (Chapter [51-54](#) WAC), the Uniform Plumbing Code and Standards (Chapters [51-56](#) and [51-57](#) WAC), and the Washington State Energy Code (Chapter [51-11](#) WAC).

Exception: Group R-3 buildings or structures are not required to comply if:

1. The original occupancy classification is not changed; and
2. The original building is not substantially remodeled or rehabilitated.

For the purposes of this section a building shall be considered substantially remodeled when the costs of remodeling exceed 60 percent of the value of the building exclusive of the costs relating to preparation, construction, demolition or renovation of foundations.

~~For the purposes of this section a building shall be considered to be substantially remodeled when the costs of remodeling exceed 60 percent of the value of the building exclusive of the costs relating to preparation, construction, demolition or renovation of foundations.~~

See MICC [19.09.080](#), Moving of buildings, for additional requirements.

## SECTION 103

### ENFORCEMENT AUTHORITY

103.1 ~~Development Services Group~~[Community Planning and Development \(CPD\)](#). ~~The Development Services Group of the City of Mercer Island~~[CPD](#) shall be responsible for enforcement of the construction codes, under the administrative and operational control of the building official, who shall be designated by the code official (as defined by MICC [19.16.010](#)); provided, the fire marshal or his or her designee shall be responsible for enforcement of the International Fire Code.

103.2 Building official. The building official is responsible for administration and interpretation of the Construction Administrative Code and the Construction Codes, except that the fire marshal or his or her designee shall be responsible for administration and interpretation of the International Fire Code.

103.3 Deputies. The building official may delegate authority to a deputy building official, related technical officers, code enforcement officers, inspectors, plan examiners or other City employees. Such employees shall have powers as delegated by the building official.

## SECTION 104

## DUTIES AND POWERS OF BUILDING OFFICIAL

104.4 Inspections. The building official shall make ~~all of~~ the required inspections, or the building official shall have the authority to accept reports of inspection by approved agencies or individuals. Reports of such inspections shall be in writing and be certified by a responsible officer of such approved agency or by the responsible individual. The building official is authorized to engage such expert opinion as deemed necessary to report upon unusual technical issues that arise at the applicant's expense.

104.10 Alternative materials, design and methods of construction and equipment. The provisions of the construction codes are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by the construction codes, provided that any such alternative has been approved by the building official. The building official shall have the authority to approve an ~~An~~ alternative material, design or method of construction upon application of the owner(s) or the owner(s) authorized agent(s). The building official shall first find ~~shall be approved where the building official finds~~ that the proposed design is satisfactory and complies with the intent of the provisions of the construction codes, and that the material, method or work offered is, for the purpose intended, ~~at least not less than~~ the equivalent of that prescribed in the construction codes in quality, strength, effectiveness, fire resistance, durability and safety. Compliance with the specific performance-based provisions of the construction codes shall be an alternative to the specific requirements of the construction codes. Where the alternative material, design or method of construction is not approved, the building official shall respond in writing, stating the reasons why the alternative was not approved. The building official is authorized to charge an additional fee to evaluate any proposed alternate material, design and/or method of construction and equipment under the provisions of this section.

## SECTION 105 PERMITS

105.2 Work exempt from permit. The following permit exemptions shall not apply to Areas of Flood Hazard and City Land Use Critical Areas unless the work is entirely within or on the exterior envelope of a legally established existing building. For example, exempt repairs to mechanical, electrical, and plumbing equipment, exempt re-roofing, exempt wall finishes and similar exempt work, which is located entirely within or on the exterior envelope of a legally established existing building remains exempt from permit when located within Areas of Flood Hazard and City Land Use Critical Areas. Exemptions from permit requirements related to the construction codes shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of the construction codes or any other laws or ordinances of this jurisdiction. ~~Permit exemptions shall not apply to Areas of Flood Hazard and City Land Use Critical Areas. Permits shall not be required for the following:~~ Permits shall not be required for the following:  
~~Public service agencies or Work in the Public Way.~~  
~~1. A permit shall not be required for the installation, alteration or repair of generation, transmission, distribution or metering or other related equipment that is under the ownership and control of public service agencies established by right.~~

~~2. A permit shall not be required for work located primarily in a public way, public utility towers and poles (but not exempting wireless communications facilities not located in a public way) and hydraulic flood control structures.~~

Grading.

1. An excavation below existing finished grade for basements and footings of an existing building, retaining wall or other structure authorized by a valid building permit. This shall not exempt any excavation having an unsupported height greater than 5 feet.
2. An excavation of less than 50 cubic yards of materials which:
  - a. ~~is~~ is less than 2 feet in depth and/or
  - b. ~~which does~~ Does not create a cut slope of a ratio steeper than two horizontal to one vertical.
3. A fill of less than 50 cubic yards of material which is less than 1 foot in depth and placed on natural terrain with a slope flatter than five horizontal to one vertical.

Building.

1. One-story detached accessory structures constructed under the provisions of the IRC used as tool and storage sheds, tree supported play structures, playhouses and similar uses, provided the floor area does not exceed 200 square feet (18.58 m<sup>2</sup>).
2. Fences not over 6 feet (1,829 mm) high.
3. Oil derricks.
4. Retaining walls and rockeries which are not over 4 feet (1,219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or impounding Class I, II or III-A liquids.
5. Water tanks supported directly on grade if the capacity does not exceed 5,000 gallons (18,925 L) and the ratio of height to diameter or width does not exceed 2 to 1.
6. Sidewalks, decks and driveways constructed under the provisions of the IRC, which are not more than 30 inches (762 mm) above grade and not over any basement or story below, ~~and which are not part of an accessible route.~~
7. In-kind re-roofing of one- and two-family dwellings provided the roof sheathing is not removed or replaced.
8. Painting, non-structural wood and vinyl siding, papering, tiling, carpeting, cabinets, counter tops and similar finish work, provided that existing, required accessible features are not altered. This exemption shall not apply to veneer, stucco or exterior finish and insulation systems (EFIS). This exemption shall not apply to structures regulated under RCW 64.55.
9. Temporary motion picture, television and theater stage sets and scenery.
10. Prefabricated swimming pools accessory to one- and two-family dwellings or Group R-3 occupancy which are less than 24 inches (610 mm) deep, do not exceed 5,000 gallons (18,925 L) and are installed entirely above ground.
11. Shade cloth structures constructed for garden nursery or agricultural purposes and not including service systems.
12. Swings, slides and other similar playground equipment.
13. Window awnings supported by an exterior wall which do not project more than 54 inches (1,372 mm) from the exterior wall and do not require additional support of a one- and two-family dwelling or a Group R-3 or U occupancy.
14. Movable cases, counters and partitions not over 5 feet 9 inches (1,753 mm) in height.
15. Satellite earth station antennas 6-1/2 feet (2 m) or less in diameter in zones other than residential zones.
16. Satellite earth station antennas 3-1/4 feet (1 m) or less in diameter in residential zones.

17. Video programming service antennas 3-1/4 feet (1 m) or less in diameter or diagonal dimension, regardless of zone.

18. Decking replacement on decks without changing or adding any other structural members or removing guardrails.

~~18. Replacement of nonstructural siding on IRC structures except for veneer, stucco or exterior finish and insulation systems (EFIS).~~

19. In-kind window replacement for IRC structures where no alteration of structural members is required, safety glazing is provided where required, window fall protection is provided where required, emergency egress requirements are provided and when the window U-values meet the prescriptive requirements within the Washington State Energy Code.

20. Job shacks that are placed at a permitted job site during construction may be allowed on a temporary basis and shall be removed upon final approval of construction. A job shack is a portable structure for which the primary purpose is to house equipment and supplies, and which may serve as a temporary office during construction for the purposes of the construction activity.

21. Flag and light poles that do not exceed 20 feet in height. (An electrical permit may still be required.)

22. Photovoltaic (PV) panels meeting all of the following criteria:

a. PV system is designed and proposed for a detached 1- or 2-family dwelling or townhouse not more than 3 stories above grade or detached accessory structure.

b. PV system is being installed by a licensed contractor.

c. Mounting system is engineered and designed for PV.

d. Rooftop is made from lightweight material such as a single layer of composition shingles, metal roofing, or cedar shingles.

e. Panels are mounted no higher than 18 inches above the surface of the roofing to which they are affixed. Except for flat roofs, no portion of the system may exceed the highest point of the roof (or ridge).

f. Total dead load of panels, supports, mountings, raceways, and all other appurtenances weigh no more than 3.5 pounds per square foot.

g. Supports for solar panels are installed to spread the dead load across as many roof-framing members as needed to ensure that at no point loads in excess of 50 pounds are created.

h. The installation will comply with the manufacturer's instructions.

i. Roof and wall penetrations will be flashed and sealed to prevent entry of water, rodents, and insects.

j. Home is code compliant to setbacks and height, or code allows expansion of nonconformity for solar panels.

k. System complies with International Residential Code Chapter 23 for solar thermal energy systems.

l. Roof-mounted collectors and supporting structure are constructed of noncombustible materials or fire-retardant-treated wood equivalent to that required for the roof construction.

m. Roof access points and pathways for firefighters will be provided per IFC 605.11.

n. The PV system has an approved and issued electrical permit

Mechanical.

1. Portable heating, cooking, or clothes drying appliances.

2. Portable ventilation equipment.

3. Portable cooling unit.

4. Steam, hot or chilled water piping within any heating or cooling equipment regulated by the construction codes.
5. Replacement of any part which does not alter its approval or make it unsafe.
6. Portable evaporative cooler.
7. Self-contained refrigeration system containing 10 pounds (4.54 kg) or less of refrigerant and actuated by motors of 1 horsepower (746 W) or less.
8. Portable fuel cell appliances that are not connected to a fixed piping system and are not interconnected.

#### Plumbing.

1. The stopping and/or repairing of leaks in drains, water, soil, waste or vent pipe provided, however, that should any concealed trap, drain pipe, water, soil, waste or vent pipe become defective and it becomes necessary to remove and replace the same with new material, the same shall be considered as new work and a permit shall be obtained and inspection made as provided in the construction codes.
2. The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures and the removal and reinstallation of water closets, provided such repairs do not involve or require replacement or rearrangement of valves, pipes or fixtures.
3. Reinstallation or replacement of pre-fabricated fixtures that do not involve or require the replacement or rearrangement of valves or pipes.

105.2.1 Emergency repairs. Where equipment replacements and equipment repairs must be performed in an emergency situation, the permit application shall be submitted within the next working business day to the building official.

~~105.2.2 Repairs. Application or notice to the building official is not required for ordinary repairs to structures. Such repairs shall not include the cutting away of any wall, partition or portion thereof, the removal or cutting of any structural beam or load-bearing support, or the removal or change of any required means of egress, or rearrangement of parts of a structure affecting the egress requirements; nor shall ordinary repairs include an addition to, alteration of, replacement or relocation of any standpipe, water supply, sewer, drainage, drain leader, gas, soil, waste, vent or similar piping, electric wiring or mechanical or other work affecting public health or general safety.~~

#### 105.2.2 Public service agencies or Work in the Public Way.

1. A permit shall not be required for the installation, alteration or repair of generation, transmission, distribution or metering or other related equipment that is under the ownership and control of public service agencies established by right.
2. A permit shall not be required for work located primarily in a public way, public utility towers and poles (but not exempting wireless communications facilities not located in a public way) and hydraulic flood control structures.

#### 105.3 Application for permit.

To obtain a permit, the applicant shall first file a complete application in writing on a form furnished by the building department for that purpose or on-line by an electronic application furnished by the building department for that purpose. Such application shall:

1. Identify and describe the work to be covered by the permit for which application is made.
2. Describe the land on which the proposed work is to be done by legal description, street address or similar description that will readily identify and definitely locate the proposed building or work.
3. Indicate the use and occupancy for which the proposed work is intended.

4. Be accompanied by [complete](#) construction documents and other information as required in Section 107.

5. State the valuation of the proposed work.

6. Be signed by the applicant or the applicant's authorized agent.

7. Give such other data and information as required by the building official.

105.3.1 Action on application. The building official shall examine or cause to be examined applications for permits and amendments thereto within a reasonable time after filing. If the application or the construction documents do not conform to the requirements of pertinent laws, the building official shall reject such application in writing, stating the reasons therefor. If the building official is satisfied that the proposed work conforms to the requirements of the construction codes and the Construction Administrative Code and laws and ordinances applicable thereto, the building official shall issue a permit therefor as soon as practicable.

105.3.2 Time limitation of application.

1. Applications for which no permit is issued within 18 months following the date of application shall expire by limitation and plans and other data submitted for review may thereafter be returned to the applicant or destroyed in accordance with state law.

2. Applications may be canceled for inactivity, if an applicant fails to respond to the department's written request for revisions, corrections, actions or additional information within 90 days of the date of request. The building official may extend the response period beyond 90 days if within the original 90 day time period the applicant provides and subsequently adheres to an approved schedule with specific target dates for submitting the full revisions, corrections or other information needed by the department.

3. The building official may extend the life of an application if any of the following conditions exist:

a. Compliance with the State Environmental Policy Act is in progress; or

b. Any other city review is in progress; provided the applicant has submitted a complete response to city requests or the building official determines that unique or unusual circumstances exist that warrant additional time for such response, and the building official determines that the review is proceeding in a timely manner toward final city decision; or

c. Litigation against the city or applicant is in progress, the outcome of which may affect the validity or the provisions of any permit issued pursuant to such application.

105.3.3 Verification of contractor registration. Prior to issuance of a permit for work which is to be done by a contractor required to be registered pursuant to RCW [18.27](#), the applicant shall provide the City with the contractor's registration number and Mercer Island business license number and any other information determined necessary by the City to allow verification that such contractor is currently registered as required by law.

[105.3.4 Vesting of Construction Codes. The construction codes and construction administrative code that are in effect when the building permit application is deemed complete by the building official shall apply. The City has the authority to establish policies and procedures for establishing the requirements of a complete application. For mechanical, electrical, plumbing or fire permit applications submitted after the ordinance codified in this title has taken effect, but related to the scope of work identified in a building permit application that was complete prior to the effective date of the ordinance codified in this chapter, all applicable construction codes adopted and in force at the time of filing of the complete building permit application will apply.](#)

105.4 Validity of permit. The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of the



construction codes and the Construction Administrative Code or of any other ordinance of the jurisdiction. Permits presuming to give authority to violate or cancel the provisions of the construction codes and the Construction Administrative Code or other ordinances of the jurisdiction shall not be valid. The issuance of a permit based on construction documents and other data shall not prevent the building official from requiring the correction of errors in the construction documents and other data. The building official is also authorized to prevent occupancy or use of a structure where in violation of the construction codes and the Construction Administrative Code or of any other ordinances of this jurisdiction.

#### 105.5 Expiration.

1. Every permit issued shall expire two years from the date of issuance. For non-residential or ~~mixed-use~~mixed-use construction, the building official may approve a request for an extended expiration date where a construction schedule is provided by the applicant and approved prior to permit issuance.
2. The building official may approve a request to renew a permit if an additional fee has been paid, a construction schedule and management plan is provided and approved, and no changes ~~have been made~~are proposed to the ~~originally~~-approved plans by the applicant. Requests for permit renewals shall be submitted prior to or not more than 90-days after permit expiration. When determining whether to approve a building permit renewal, the building official may consider whether a previously approved construction schedule for the building permit has been adhered to by the applicant. In cases where a construction schedule has not been adhered to, due to reasonably unforeseeable delays, the building official may authorize renewal of the permit. Renewed permits shall expire 3 years from the date of issuance of the original permit. The building official shall not authorize a permit renewal if the construction schedule supplied with the renewal request will not result in the completion of work within the time period authorized under the permit renewal. For permits that have expired, a new permit must be obtained and new fees paid. No permit shall be renewed more than once.
3. Electrical, mechanical and plumbing permits shall expire at the same time as the associated building permit except that if no associated building permit is issued, the electrical, mechanical and/or plumbing permit shall expire 180 days from issuance.
4. If a permit expired without final inspection and no further work was performed during the expiration period, the ~~The~~ building official may authorize a 30-day extension to an expired permit for the purpose of performing a final inspection and closing out the permit as long as not more than 180 days has passed since the permit expired. The 30-day extension would commence on the date of written approval. If work required under a final inspection is not completed within the 30-day extension period, the permit shall expire. However, the building official may authorize an additional 30-day extension if conditions outside of the applicant's control exist and the applicant is making a good faith effort to complete the permitted work.

### SECTION 106

#### FLOOR AND ROOF DESIGN LOADS

106.1 Live Loads Posted. Where the live load for which each floor or portion thereof of a commercial or industrial building is or has been designed to exceed 50 psf (2.40kN/m<sup>2</sup>), such design live load shall be conspicuously posted by the owner or the owner's authorized agent in that part of each story in which they apply, using durable signs. It shall be unlawful to remove or deface such notices.

106.2 Issuance of certificate of occupancy. A certificate of occupancy required by Section 111 shall not be issued until the floor load signs required by Section 106.1 have been installed.

106.3 Restrictions on loading. It shall be unlawful to place, cause or permit to be placed, on any floor or ~~room~~-roof of a building, structure or portion thereof, a load greater than is permitted by this code.

## SECTION 107

### SUBMITTAL DOCUMENTS

107.1 Submittal documents. Submittal documents consisting of construction documents, statement of special inspection and structural observation programs, engineering reports and calculations, diagrams and other data shall be submitted with each permit application for a permit. The construction documents shall be prepared by a registered design professional where required by the State of Washington. Where special conditions exist, the building official is authorized to require additional construction documents to be prepared by a registered design professional.

Exception: The building official is authorized to waive the requirement for submission of construction documents and other data if it is found that the nature of the work applied for is such that review of construction documents is not necessary to obtain compliance with the construction codes.

107.2 Construction documents. Construction documents shall be in accordance with sections 107.2.1 through 107.2.5.

107.2.1 Information on construction documents. Construction documents shall be dimensioned and drawn upon suitable material. Electronic media documents are permitted to be submitted when approved by the building official. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed in the proper orientation and layout as it is to be constructed and show in detail that it will conform to the provisions of the construction codes and the Construction Administrative Code and relevant laws, ordinances, rules and regulations, as determined by the building official. The plans must include the relevant items listed in this section and any other information or documents as deemed necessary by the building official.

107.2.1.1 Structural information. Structures or portions thereof, constructed under the IBC shall have construction documents include the information specified in section 1603 of the IBC.

107.2.2 Fire protection system shop drawings. Shop drawings for the fire protection system(s) shall be submitted to indicate conformance with the construction codes, the Construction Administrative Code, and the construction documents and shall be approved prior to the start of system installation. Shop drawings shall contain all information as required by the referenced installation standards in Chapter 9 of the IBC. Shop drawings shall be prepared by a certified individual as required by the State of Washington.

107.2.3 Means of egress. The construction documents shall show in sufficient detail the location, construction, size and character of all portions of the means of egress in compliance with the provisions of the construction codes. In other than one- and two-family dwellings and ~~in Groups R-2, R-3, and I-1 occupancies~~their accessory structures, the construction documents shall designate the number of occupants to be accommodated on every floor and in all rooms and spaces.

107.2.4 Exterior ~~wall~~-envelope. Construction documents for all buildings shall describe the exterior wall envelope in sufficient detail to determine compliance with the construction codes. The construction documents shall provide details of the exterior

wall envelope as required, including flashing; intersections with dissimilar materials; corners; end details; control joints; intersections at roof eaves or parapets; means of drainage; water-resistive membranes; and details around openings. The construction documents shall include manufacturer's installation instructions that provide supporting documentation that the proposed penetration and opening details described in the construction documents maintain the weather resistance of the exterior wall envelope. The supporting documentation shall fully describe the exterior wall system which was tested, where applicable, as well as the test procedure used.

Exception: Subject to the approval of the building official, one- and two-family dwellings and Group R-3 and U occupancies may be exempt from the detailing requirements of this section.

107.2.4.1 Building enclosure design requirements of [multiunit residential buildings or rehabilitative construction subject to the regulations of Revised Code of Washington \(RCW\) 64.55](#) ~~(otherwise known as Engrossed House Bill (EHB) 1848)~~.

[1. Any person applying for a building permit for construction of a multiunit residential building or rehabilitative construction shall submit building enclosure design documents to the building official prior to the start of construction or rehabilitative construction of the building enclosure. If construction work on a building enclosure is not rehabilitative construction because the cost thereof is not more than five percent of the assessed value of the building, then the person applying for a building permit shall submit to the building official a letter so certifying. Any changes to the building enclosure design documents that alter the manner in which the building or its components is waterproofed, weatherproofed, and otherwise protected from water or moisture intrusion shall be stamped by the architect or engineer and shall be provided to the building official and to the person conducting the course of construction inspection in a timely manner to permit such person to inspect for compliance therewith, and may be provided through individual updates, cumulative updates, or as-built updates.](#)

[2. The building official shall not issue a building permit for construction of the building enclosure of a multiunit residential building or for rehabilitative construction unless the building enclosure design documents contain a stamped statement by the person stamping the building enclosure design documents in substantially the following form: "The undersigned has provided building enclosure documents that in my professional judgment are appropriate to satisfy the requirements of RCW 64.55.005 through 64.55.090."](#)

[3. The building official is not charged with determining whether the building enclosure design documents are adequate or appropriate to satisfy the requirements of RCW 64.55.005 through 64.55.090. Nothing in RCW 64.55.005 through RCW 64.55.090 requires a building official to review, approve, or disapprove enclosure design documents.](#)

~~Building enclosure design documents of new or rehabilitated multifamily buildings that are subject to regulations of Engrossed House Bill 1848 must be submitted at the time of permit application. All applications for building construction or rehabilitation shall include design documents prepared and stamped by an architect or engineer that identify the building enclosure (building enclosure documents), including but not limited to waterproofing, weather proofing and/or otherwise protected from water or moisture intrusion, unless a recorded irrevocable sale prohibition covenant is submitted to the City.~~

~~The city is prohibited from issuing a permit for construction or rehabilitative construction unless the building enclosure documents contain a stamped statement by the person stamping the building enclosure design documents in substantially the following form, "The undersigned has provided building enclosure documents that in my professional judgment are appropriate to satisfy the requirements of sections 1 through 10 of EHB-~~

~~1848". The city is not responsible for determining whether the building enclosure design documents or the inspections performed are adequate or appropriate to satisfy the requirements of the act.~~

See MICC [19.08.060](#), Condominium conversions, for additional requirements.

[107.2.4.2 Exterior balconies and elevated walking surfaces. Where balconies or other elevated walking surfaces are exposed to water from direct or blowing rain, snow, or irrigation, and the structural framing is protected by an impervious moisture barrier, the construction documents shall include details for all elements of the impervious moisture barrier system. The construction documents shall include manufacturer's installation instructions.](#)

[107.2.9 Relocatable Buildings. Construction documents for relocatable buildings shall comply with Section 3112.](#)

107.3 Examination of documents. The building official shall examine or cause to be examined the accompanying submittal documents and shall ascertain by such examinations whether the construction indicated and described is in accordance with the requirements of the construction codes, the Construction Administrative Code, and other pertinent laws or ordinances.

107.3.1 Use of consultants. Whenever review of a building permit application requires retention by the jurisdiction for professional consulting services, the applicant shall reimburse to the jurisdiction the cost of such professional consulting services. This fee shall be in addition to the normal plan review and building permit fees. The jurisdiction may require the applicant to deposit an amount with the jurisdiction estimated in the discretion of the building official to be sufficient to cover anticipated costs to retaining professional consultant services and to ensure reimbursement for such costs.

107.3.2 Approval of construction documents. When the building official issues a permit, the construction documents shall be approved, in writing or by stamp, as "Reviewed for Code Compliance." One set of construction documents so reviewed shall be retained by the building official [either as a paper or electronic set](#). ~~The other~~ Another set shall be returned to the applicant, [either as a paper or electronic set, and](#) shall be kept at the site of work and shall be open to inspection by the building official or a duly authorized representative.

107.3.3 Phased approval. The building official is authorized to issue a permit for the construction of foundations or any other part of a building or structure before the construction documents for the whole building or structure have been submitted, provided that adequate information and detailed [statements have been filed complying with pertinent requirements of the construction codes and the Construction Administrative Code. The holder of such permit for the foundation or other parts of a building or structure shall proceed at the holder's own risk with the building operation and without assurance that a permit for the entire structure will be granted.](#) ~~state~~ ~~ments have been filed complying with pertinent requirements of the construction codes and the Construction Administrative Code. The holder of such permit for the foundation or other parts of a building or structure shall proceed at the holder's own risk with the building operation and without assurance that a permit for the entire structure will be granted.~~

107.4 Design professional in responsible charge.

107.4.1 General. When it is required that documents be prepared by a qualified registered design professional, the building official shall be authorized to require the owner to engage and designate on the building permit application a registered design professional who shall act as the registered design professional in responsible charge. If the circumstances require, the owner shall designate a substitute registered design professional in responsible charge who shall perform the duties required of the original registered design professional in responsible charge. The building official shall be notified in writing by the owner if the registered design professional in responsible charge is changed or is unable to continue to perform the duties. The registered design professional in responsible charge shall be responsible for reviewing and coordinating submittal documents prepared by others, including phased and deferred submittal items, for compatibility with the design of the building. Where structural observation is required by Section ~~4740~~ [1704.6](#) of the IBC, the inspection program shall name the individual or firms who are to perform structural observations and describe the stages of construction at which structural observation is to occur (see also other duties specified in Chapter 17 of the IBC).

## SECTION 110 INSPECTIONS

110.4.6 IMC/UPC/Gas/NEC rough-in inspection. Rough-in mechanical, gas piping, plumbing and electrical systems shall be inspected after the roof, framing, fire-blocking and bracing are in place and all components to be concealed are complete, and if required, under test prior to covering or concealment, before fixtures or appliances are set or installed, and prior to framing inspection. No connections to primary utilities shall be made until the rough-in work is inspected and approved. Joints and connections in the plumbing system shall be gastight and watertight for the pressures required by the test.

[Exception: Backfilling of ground-source heat pump loop systems tested in accordance with section M2105.28 prior to inspection shall be permitted.](#)

No test or inspection shall be required where a plumbing system, or part thereof, is set up for exhibition purposes and has no connection with a water or drainage system. The requirements of this section shall not be considered to prohibit the operation of any heating equipment or appliances installed to replace existing heating equipment or appliances serving an occupied portion of a structure provided that a request for inspection of such heating equipment or appliances has been filed with the department not more than 48 hours after such replacement work is completed, and before any portion of such equipment or appliances is concealed by any permanent portion of the structure.

110.4.7 Frame inspection. Framing inspections shall be made after the roof deck or sheathing, all framing, fire blocking, [draftstopping](#) and bracing are in place and pipes, chimneys and vents to be concealed are complete and the rough electrical, plumbing, fire-suppression piping, heating wires, pipes and ducts are approved and the building is substantially dry.

110.4.8 [Weather Resistance.](#)

[110.4.8.1](#) Exterior Finish and Insulation Systems (EFIS), Lath and gypsum board inspection. EFIS, Lath and gypsum board inspections shall be made after backing, lathing or gypsum board, interior and exterior, is in place, but before any plastering is applied or gypsum board joints and fasteners are taped and finished.



Exception: Interior gypsum board that is not part of a fire-resistance-rated assembly or a shear assembly does not require inspection.

110.4.8.2 Weather-exposed balcony and walking surface waterproofing. Where balconies or other elevated walking surfaces are exposed to water from direct or blowing rain, snow or irrigation, and their structural framing is protected by an impervious moisture barrier, all elements of the impervious moisture barrier system shall not be concealed until inspected and approved.

Exception: Where special inspections are provided in accordance with Section 1705.1.1, Item 3.

110.4.9 Fire-resistance-rated construction inspections. Where fire-resistance-rated construction is required, an inspection of such construction shall be made after lathing or gypsum board or gypsum panel products are in place, but before any plaster is applied, or before board or panel joints and fasteners are taped and finished. Protection of joints and penetrations in fire-resistance-rated assemblies, smoke barriers and smoke partitions shall not be concealed from view until inspected and approved.

110.4.10 Energy efficiency inspections per the requirements of WSEC C104 and R104.

110.4.10.1 Envelope. In addition to the inspections required in WAC ~~51-11~~51-11C and 51-11R, the following inspections are also required:

1. Wall insulation. The wall insulation inspection is to be made after exterior wall weather protection and all wall insulation and air vapor retarder sheets or film materials are in place, but before any wall covering is placed.
2. Glazing. The glazing inspection is to be made after glazing materials are installed in the building.
3. Exterior roofing insulation. The exterior roofing insulation inspection is to be made after the installation of the roofing and roof insulation, but before concealment.
4. Slab/floor insulation. The slab/floor insulation inspection is to be made after the installation of the slab/floor insulation, but before concealment.

Also, see section 110.4.15 for Building enclosure special inspection requirements of RCW 64.55.

110.4.15 Building enclosure special inspection requirements of RCW 64.55 ~~(otherwise known as Engrossed House Bill (EHB) 1848). EHB 1848~~ RCW 64.55 requires affected multiunit residential buildings to provide a building enclosure inspection performed by a third party, independent, and qualified inspector during the course of initial construction and during rehabilitative construction. The city does not verify the qualifications of the inspector or determine whether the building enclosure inspection is adequate or appropriate. However, the City is prohibited from issuing a certificate of occupancy for the building until the inspector prepares a report and submits to the building department a signed letter certifying that the building enclosure has been inspected during the course of construction or rehabilitative construction and that the construction is in substantial compliance with the building enclosure design documents.

See Section 107.2.4.1 Building enclosure design requirements of RCW 64.55 ~~(EHB-1848)~~ for additional requirements.

## SECTION 111

### CERTIFICATE OF OCCUPANCY

111.1 ~~Use and~~ Change of occupancy. ~~No~~ A building or structure shall not be used or occupied, and ~~no~~ a change ~~in the existing of~~ occupancy ~~classification~~ of a building or structure or portion thereof shall not be made, until the building official has issued a certificate of occupancy as provided herein. Issuance of a certificate of occupancy shall



not be construed as an approval of a violation of the provisions of the construction codes, the Construction Administrative Code, or of other ordinances of the jurisdiction.

Exceptions:

1. Work exempt from permits per section 105.2.
2. For single family dwellings and their accessory structures, the City issued building permit inspection record may serve as the certificate of occupancy when the final inspection has been approved by the building official or the building official's designee.
- 111.2 Certificate issued. After the building official inspects the building or structure and finds no violations of the provisions of the construction codes, the Construction Administrative Code, or other laws or ordinances that are enforced by this jurisdiction, the building official shall issue a certificate of occupancy that contains the following:
  1. The building permit number.
  2. The address of the structure.
  3. The name and address of the owner.
  4. A description of that portion of the structure for which the certificate is issued.
  5. A statement that the described portion of the structure has been inspected for compliance with the requirements of the construction codes and the Construction Administrative Code for the occupancy and division of occupancy and the use for which the proposed occupancy is classified.
  6. The name of the building official.
  7. The edition of the code under which the permit was issued.
  8. The use and occupancy.
  9. The type of construction.
  10. The design occupant load.
  11. If an automatic sprinkler system is provided, whether the sprinkler system is required.
  12. Any special stipulations and conditions of the building permit.

## SECTION 114

### VIOLATIONS

114.1 Unlawful acts. It shall be unlawful for any person, firm or corporation to erect, construct, alter, extend, repair, move, remove, demolish or occupy any building, structure or equipment regulated by the construction codes and the Construction Administrative Code, or cause same to be done, in conflict with or in violation of any of the provisions of the construction codes or the Construction Administrative Code.

114.2 Enforcement. Enforcement of the construction codes and the Construction Administrative Code shall be in conformance with the procedures set forth in Chapter [6.10](#) MICC; provided, that references to the development code shall be deemed to refer to the Construction Administrative Code and the Construction Codes.

114.3 Enforcement Authority.

1. ~~Development Services Group~~ [Community Planning and Development \(CPD\)](#). ~~The development services group of the city of Mercer Island~~ [CPD](#) shall be responsible for enforcement of the construction codes, under the administrative and operational control of the building official, who shall be designated by the code official (as defined by MICC [19.16.010](#)); provided, the fire code official or his or her designee shall be responsible for enforcement of the International Fire Code, IBC Chapter 9 – Fire Protection Systems and IRC Appendix ~~Q-V~~ related to residential fire sprinklers.
2. Building Official. The building official is responsible for administration and interpretation of the Construction Administrative Code and the construction codes;

provided, the fire code official or his or her designee shall be responsible for administration and interpretation of the fire code, IBC Chapter 9 – Fire Protection Systems and IRC Appendix ~~Q-V~~ related to residential fire sprinklers.

Whenever the term or title “administrative authority,” “responsible official,” “building official,” “chief inspector,” “code enforcement officer” or other similar designation is used in this title or in any of the construction codes, it shall be construed to mean the building official designated by the code official; provided, with regard to the International Fire Code, it shall mean the fire code official or his or her designee.

## **SECTION 119**

### **APPLICABILITY OF CODES**

~~119.1 Applicability of codes. For mechanical, electrical or plumbing permit applications submitted after the ordinance codified in this title has taken effect, but related to the scope of work identified in a building permit application that was complete prior to the effective date of the ordinance codified in this chapter, all applicable construction codes adopted and in force at the time of filing of the complete building permit application will apply.~~

~~(Ord. 18C-06 § 1 (Att. A); Ord. 17C-15 § 1 (Att. A); Ord. 17C-12 § 4; Ord. 16C-04 § 11; Ord. 15C-14 § 2; Ord. 13C-06 § 10; Ord. 10C-03 § 11; Ord. 07C-04 § 12; Ord. 04C-12 § 4).~~

### **Amendments to Chapter 17 Construction Codes.**

MICC 17.17 “INTERNATIONAL EXISTING BUILDING CODE” is hereby adopted as follows:

#### Chapter 17.17

#### INTERNATIONAL EXISTING BUILDING CODE

##### Sections:

##### 17.17.010 Adoption.

##### 17.17.010 Adoption.

The 2018 International Existing Building Code (IEBC) is included in the adoption of the International Building Code as provided by IBC Section 101.4.7 and amended in WAC 51-50-480000, including Appendix A, Guidelines for the Seismic Retrofit of Existing Buildings, excluding Chapter 1, Part 2 – Administration. The Construction Administrative Code, as set forth in Chapter 17.14 MICC, shall be used in place of IEBC Chapter 1, Part 2 – Administration. Provided that detached one-and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories above grade plane in height with a separate means of egress, and their accessory structures not more than three stories above grade plane in height, shall comply with this code or the International Residential Code.

### **Amendments to Title 17 MICC, Construction Codes.**

MICC 17.18 “INTERNATIONAL SWIMMING POOL AND SPA CODE” is hereby adopted as follows:

#### Chapter 17.18

#### INTERNATIONAL SWIMMING POOL AND SPA CODE

##### Sections:

##### 17.18.010 Adoption.

##### 17.18.010 Adoption.

The 2018 International Swimming Pool and Spa Code (ISPSC) is included in the adoption of the International Building Code as provided by IBC Section 3109.1 and amended in WAC 51-50-3109, and as provided by IRC Section R329 and amended in WAC 51-51-0329, excluding Chapter 1, Part 2 – Administration. The Construction Administrative Code, as set forth in Chapter 17.14 MICC, shall be used in place of ISPSC Chapter 1, Part 2 – Administration. The design and construction of swimming pools, spas and other aquatic recreation facilities shall comply with the ISPSC, where the facility is one of the following, except that public swimming pool barriers are regulated by WAC 246-260-031(4):

1. For the sole use of residents and invited guests at a single-family dwelling;
2. For the sole use of residents and invited guests of a duplex owned by the residents; or
3. Operated exclusively for physical therapy or rehabilitation and under the supervision of a licensed medical practitioner.

All other “water recreation facilities” as defined in RCW 70.90.110 are regulated under Chapters 246-260 and 246-262 WAC.