CITY OF LAKE FOREST PARK
CITY COUNCIL WORK SESSION

Thursday, July 14, 2022 at 6:00 PM

Meeting Location: In Person and Virtual / Zoom

17425 Ballinger Way NE Lake Forest Park, WA 98155

cityoflfp.com

INSTRUCTIONS FOR PARTICIPATING IN THIS MEETING VIRTUALLY:

Please note, this link works for both the Work Session (6:00 p.m.) and Regular Meeting (7:00 p.m.).

Join Zoom Webinar: https://us06web.zoom.us/j/89896180737
Call into Webinar: 253-215-8782 | Webinar ID: 898 9618 0737

Public Comment is not taken during the Work Session.

As allowed by law, the Council may add items not listed on the agenda.
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Meetings are shown on the city's website and on Comcast channel 21 for subscribers within the Lake Forest Park city limits.

AGENDA

1. **CALL TO ORDER: 6:00 PM**
2. **ADOPTION OF AGENDA**
3. **COUNCIL DISCUSSION TOPICS**
   - **A.** Adoption of 2018 International Building Code and Other Construction related codes
   - **B.** Ordinance 1241 – Code Amendments for National Pollutant Discharge Elimination System (NPDES) Source Control Program Creation and Stormwater Design Manual Updates
4. **ADJOURN**

FUTURE SCHEDULE

--Thursday, July 21, 2022 City Council Budget & Finance Committee Meeting 6 pm *hybrid meeting* (Zoom and City Hall)

--Monday, July 25, 2022 City Council Committee of the Whole Meeting 6 pm *hybrid meeting* (Zoom and City Hall)

--Thursday, July 28, 2022 City Council Special Work Session Meeting 6 pm *hybrid meeting* (Zoom and City Hall)

--Thursday, July 28, 2022 City Council Regular Business Meeting 7 pm *hybrid meeting* (Zoom and City Hall)

Any person requiring a disability accommodation should contact city hall at 206-368-5440 by 4:00 p.m. on the day of the meeting for more information.

CITY OF LAKE FOREST PARK
CITY COUNCIL
AGENDA COVER SHEET

Meeting Date	July 14, 2022 Work Session
Originating Department	Building Department
Contact Person	Calvin Killman
Title	Adoption of 2018 International Building Code and Other Construction related codes

Legislative History

- First Presentation July 14, 2022, Work Session

Attachments:

1. List of Codes being adopted
2. Draft Ordinance for code adoption
3. Exhibit A – Updates to 2018 Fire Code

Executive Summary

The subject is the adoption of updated International Building Codes for Lake Forest Park. The 2018 version was adopted by the State of Washington and went into effect in February 2020. The codes are proposed for adoption with the state amendments and some local amendments found in the International Fire Code. The codes include the most recent approved new materials, practices, and safety features. It is useful to permit holders and builders to have the latest codes available and, if they work in multiple cities, to be able to use the same codes.

Background

Codes and Sources: The State of Washington primarily uses the international family of Building Codes (Building, Residential, Mechanical, Fire, Plumbing, (National) Fuel Gas, (NFPA), Liquefied Petroleum Gas, Fuel Gas, (Uniform) Housing, (Uniform) Abatement of Dangerous Buildings, Energy Conservation, (National) Electrical, Existing Building. There are a series of state amendments adopted every three years to comport with state law. Every three years, the International Code Council of Building Officials (ICBO), National Fire

Protection Association, and International Association of Plumbing and Mechanical Officials reviews and updates the family of codes and submit them for adoption. The briefing and action before City Council are to review and consider adopting the 2018 updates.

LFP Municipal Code:

Chapter 15.04: Amended to add the most recent versions of the code and requiring the City to keep copies of them on file for review and inspection.

Chapter 15.10: Local Amendments to Fire Code: Update the local amendments to the Fire Code.

Fiscal & Policy Implications

The main impact is the cost of a new set of code books every three years. The estimated cost is $1,800 and is included in the budget.

Staff Recommendation
Work Session: Receive briefing, ask questions, and seek any needed information.

Regular Meeting: Approve Ordinance, adopting the proposed building code Updates, 2018 version with the Washington State amendments. Adopt the 2018 editions of the State Building Code (RCW 19.27.031).

By adopting the model codes, we help ensure that Lake Forest Park's building practices reflect the latest in design, technologies, and safety standards.

These are the codes being adopted by reference (which are updated versions of the same codes that were adopted by reference in 2018):

- The 2018 Edition of the International Building Code (“IBC”), as adopted and amended by the State Building Code Council in Chapter 51-50 WAC.
- The 2018 Edition of the International Residential Code (“IRC”), as adopted by the State Building Code Council in Chapter 51-51 WAC, as published by the International Code Council.
- The 2018 Edition of the International Mechanical Code (“IMC”), as adopted by the State Building Code Council in Chapter 51-52 WAC.
- The 2018 Edition of the International Fire Code (“IFC”), as adopted by the State Building Code Council in Chapter 51-54A WAC, along with Appendix B thereto (Fire Flow).
- The 2018 Edition of the Uniform Plumbing Code (“UPC”), as adopted by the State Building Code Council in Chapter 51-56 WAC, excluding Chapter 1, “Administration.”
- The 2018 Edition of the National Fuel Gas Code (NFPA 54), as adopted by the State Building Code Council in Chapter 51-52 WAC.
- The 2018 Edition of the International Fuel Gas Code, as adopted by the State Building Code Council in Chapter 51-52 WAC.
- The 2018 Edition of the International Existing Building Code, together with amendments and/or additions thereto, as adopted by the State Building Code Council in Chapter 51-50 WAC.
- The 2018 Edition of the National Electrical Code.
- The 2018 Edition of the International Energy Conservation Code, Commercial and Residential, as adopted by the State Building Code Council in Chapters 51-11C and 51-11R WAC.

ORDINANCE XXXX

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LAKE FOREST PARK, WASHINGTON, ADOPTING THE 2018 EDITIONS OF THE INTERNATIONAL BUILDING CODE, INTERNATIONAL RESIDENTIAL CODE, INTERNATIONAL MECHANICIAL CODE, NATIONAL FUEL GAS CODE (NFPA 54) FOR LP GAS, INTERNATIONAL FUEL GAS CODE, INTERNATIONAL FIRE CODE AND APPENDIX B THERETO, UNIFORM PLUMBING CODE, INTERNATIONAL ENERGY CONSERVATION CODES FOR COMMERCIAL AND RESIDENTIAL, INTERNATIONAL EXISTING BUILDING CODE, AND THE NATIONAL ELECTRICAL CODE (NFPA 70); ADOPTING APPENDICES THERETO; AMENDING CHAPTERS 15.04, 15.06 AND 15.10 OF THE LAKE FOREST PARK MUNICIPAL CODE; AND PROVIDING FOR SEVERABILITY AND AN EFFECTIVE DATE

WHEREAS, RCW 19.27.031 provides that there shall be in effect in all counties and cities the state building code, which shall consist of the International Building, Fire, Residential, and Mechanical Codes, along with a number of different, enumerated codes which are adopted by reference; and

WHEREAS, RCW 19.27.040 provides that the governing body of each county or city is authorized to amend the state building code as it applies within the jurisdiction of the county or city, so long as the minimum performance standards of the codes and the objectives enumerated in RCW 19.27.020 are not diminished by any such amendments; and

WHEREAS, RCW 19.27.050 provides that the state building code required by chapter 19.27 RCW shall be enforced by the counties and cities; and

WHEREAS, the State Building Code is amended from time to time by the State Building Code Council pursuant to RCW 19.27.035; and

WHEREAS, the State Building Code Council recently adopted the 2018 editions of the International Building, Fire, Residential and Mechanical Codes along with updates to other enumerated codes that comprise the State Building Code; effective February 1, 2021; and

WHEREAS, the City of Lake Forest Park City Council desires to adopt the 2018 editions of the applicable International codes and other amendments to the State Building Code, along with local amendments;

NOW, THEREFORE, The City Council of The City of Lake Forest Park, Washington, Do Ordain as Follows:

Section 1. LFPMC Section 15.04.015 Amended. Section 15.04.015 of the Lake Forest Park Municipal Code is amended to read as follows:

15.04.015 Building Code Adopted.

A. The city of Lake Forest Park, pursuant to state law (chapters 19.27 and 19.27A RCW) adopts as its building code the Washington State Building Code, as modified by chapters 15.06 and 15.10 LFPMC, as follows:

1. The ~~2015~~ 2018 Edition of the International Building Code ("IBC"), as adopted and amended by the State Building Code Council in Chapter 51-50 WAC.

2. The ~~2015~~ 2018 Edition of the International Residential Code ("IRC"), as adopted by the State Building Code Council in Chapter 51-51 WAC, as published by the International Code Council.

3. The ~~2015~~ 2018 Edition of the International Mechanical Code ("IMC"), as adopted by the State Building Code Council in Chapter 51-52 WAC.

4. The ~~2015~~ 2018 Edition of the International Fire Code ("IFC"), as adopted by the State Building Code Council in Chapter 51-54A WAC, along with Appendix B thereto (Fire Flow).

5. The ~~2015~~ 2018 Edition of the Uniform Plumbing Code ("UPC"), as adopted by the State Building Code Council in Chapter 51-56 WAC, excluding Chapter 1, "Administration."

6. The ~~2015~~ 2018 Edition of the National Fuel Gas Code (NFPA 54), as adopted by the State Building Code Council in Chapter 51-52 WAC.

7. The ~~2015~~ 2018 Edition of the International Fuel Gas Code, as adopted by the State Building Code Council in Chapter 51-52 WAC.

8. The ~~2015~~ 2018 Edition of the International Existing Building Code, together with amendments and/or additions thereto, as adopted by the State Building Code Council in Chapter 51-50 WAC.

9. The ~~2015~~ 2020 Edition of the National Electrical Code as adopted by the Department of Labor and Industries in Chapter 296-46B WAC and Chapter 19.28 RCW.

10. The ~~2015~~ 2018 Edition of the International Energy Conservation Code, Commercial and Residential, as adopted by the State Building Code Council in Chapters 51-11C and 51-11R WAC.

11. All current and future amendments, supplements, modifications, exclusions, exemptions and additions to the codes identified in subsections (A)(1) through (8) and (11) and (12) of this section adopted by the Washington State Building Code Council and published in WAC Title 51, including, but not by way of limitation, Chapters 51-11, 51-50, 51-51, 51-52, 51-54A, and 51-56 WAC.

12. All appendices to any code referenced above and adopted by the Washington State Building Code Council as published in WAC Title 51 are hereby adopted, unless specifically excluded above.

B. The city shall at all times keep on file with the city clerk, for reference by the general public, a copy of the foregoing codes, as they may be amended from time to time. The copies of codes on file may be placed by the city clerk in the custody of the office of the building inspector in order to make them more readily available to inspection and use by the general public.

Section 2. LFPMC Chapter 15.10 Repealed and Reenacted. Chapter 15.10 of the Lake Forest Park Municipal Code, Fire Code, is hereby repealed in its entirety and reenacted to read as shown in Exhibit A, attached hereto and incorporated herein by this reference.

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

Section 4. Corrections by Clerk or Code Reviser. Upon approval of the City Attorney, the City Clerk and the code reviser are authorized to make necessary corrections to this ordinance, including but not limited to the correction of clerical errors; references to other local, state or federal laws, codes, rules, or regulations; or ordinance numbering and section/subsection numbering.

Section 5. Effective Date. This ordinance shall take effect five (5) days after passage and publication.

APPROVED BY A MAJORITY OF the Lake Forest Park City Council this ____day of _____.

APPROVED:

_____
Jeff Johnson, Mayor

ATTEST/AUTHENTICATED:

_____
Matt McLean, City Clerk

APPROVED AS TO FORM:

_____
Kim Adams Pratt, City Attorney

Introduced:
Adopted:
Posted:
Published:
Effective:

EXHBIT A

Chapter 15.10

FIRE CODE

Sections:

15.10.005 International Fire Code adopted.

The International Fire Code, 2018 Edition, adopted in LFPMC 15.04.015, is hereby amended pursuant to RCW 19.27.040 by the adoption of the local amendments set forth in LFPMC 15.10.015 through 15.10.150. (Ord. 1163 § 3, 2018; Ord. 1064 § 9, 2013)

15.10.010 Title.

Section 101.1 is amended to read as follows:

> **101.1 Title**. These regulations shall be known as the Fire Code of the City of Lake Forest Park, hereinafter referred to as "this code."

15.10.015 IFC Section 102.7, Referenced codes and standards, amended.

Section 102.7 is amended to read as follows:

102.7 Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Chapter 80, and such codes and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections 102.7.1 and 102.7.2. When allowed by the fire code official, editions of standards not herein referenced may also be utilized provided the entire standard is utilized.

102.7.1 Conflict. Where conflicts occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply.

102.7.2 Provisions in referenced codes and standards. Where the extent of the reference to a referenced code or standard includes subject matter that is within the scope of this code, the provisions of this code, as applicable, shall take precedence over the provisions in the referenced code or standard.

15.10.020 IFC Section 105.6 Required operational permits, amended.

Section 105.6.30 is revised to read as follows:

105.6.30 Mobile food preparation vehicles. A permit is required for mobile food preparation vehicles equipped with appliances that produce smoke or grease-laden vapors or that utilize flammable gases such as LP-gas or natural gas. The fire code official is authorized to develop policies that clarify the permit requirements and participate in a regional permitting program.

15.10.025 IFC Section 105.7, Required construction permits, amended.
Section 105.7 is amended by adding the following sections:

105.7.21 Mechanical refrigeration. A construction permit is required to install, modify or expand any mechanical refrigeration system containing more than 220 pounds of a Group A1 refrigerant or more than 30 pounds of any other group refrigerant.

15.10.030 IFC Section 108.6 Overcrowding, amended.

Section 108.6 Overcrowding is amended to read as follows:

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

15.10.035 IFC Section 109, Board of appeals.
IFC Section 109, Board of appeals, is deleted and replaced with the following:

Appeals of orders, decisions or determinations made by the fire code official shall be made to the hearing examiner pursuant to section 16.26.035, ministerial administrative decisions. An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder has been incorrectly interpreted, the provisions of this code do not fully apply or an equally good or better solution is proposed. The hearing examiner shall have not authority relative to interpretation of the administrative provisions of this code nor shall the hearing examiner be empowered to waive requirements of either this code or the technical codes which are the codes, appendices and referenced code standards adopted by the city.

15.10.040 IFC Section 110.4, Violation penalties, amended.
Section 110.4 is deleted and replaced with the following:

110.4. Violation penalties. Any person who violates the provisions of this code or fails to comply with any of the requirements thereof or lawful directive of the fire code official, shall

be subject to code enforcement actions and penalties as prescribed by LFPMC 1.25 Code Enforcement.

15.10.045 IFC Section 202, definition of fire code official.

The definition of "fire code official" set forth in Section 202 is hereby amended to read as follows:

FIRE CODE OFFICIAL. The Building Official, or his or her duly authorized representative. The Building Official may delegate specified duties of the Fire Code Official to a duly authorized representative of the Northshore Fire District pursuant to that certain Inter-local Agreement Between the Northshore Fire District and the City of Lake Forest Park Relating to Administration and Enforcement of the Uniform Fire Code that is Attachment A to City of Lake Forest Park Resolution No. 790.

15.10.050 IFC Section 308.3, Open flame in Group A occupancies, amended.

Section 308.3 of the IFC is amended by adding the following exception:

4. Where approved by the fire code official.

15.10.055 IFC Section 319 Mobile Food Preparation Vehicles, amended.

Section 319.11 Location, is hereby added to read as follows:

319.11 Location. Mobile food facilities shall not be located within ten feet (10') of buildings, tents, canopies or membrane structures or within ten feet (10') of any other mobile food facility.

Exceptions:

1. When mobile food facilities are positioned on public streets, the distance from buildings may be reduced to five feet (5'). This exception is designated for events lasting a maximum of no more than three (3) consecutive calendar days in a row.
2. When located on private property, the distance from buildings may be reduced to five feet (5') from a fire wall constructed of non-combustible materials and having no openings such as windows or doors within 10 feet of the vehicle.

15.10.060 IFC Section 503, Fire apparatus access roads.

Fire apparatus access roads shall be provided and maintained in accordance with the latest version of the King County Road Standards except as modified below:

503.1.2 Additional access. The fire code official is further 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.

503.2 Specifications. Fire apparatus access roads shall be installed and arranged in accordance with sections 503.2.1 through 503.2.7.

503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed access width of not less than 20 feet, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 13 feet 6 inches.

Exceptions:

1. Driveways serving one single-family dwelling that are longer than 50 feet, as measured from the road to the house, must have a width of not less than 12 feet.

2. A joint use driveway serving only 2 single family homes must have a width of not less than 18 feet and may be located in an easement or tract of the same width.

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.

503.2.3 Surface. Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus (minimum 75,000 pounds with a 75-psi point load) and shall be surfaced so as to provide all-weather driving capabilities. Concrete or asphalt shall be used unless specifically approved by the fire code official.

503.2.4 Turning radius. The required turning radius of a fire apparatus access road shall be 20 feet inside and 40 feet outside.

503.2.5 Dead ends. Dead-end fire apparatus access roads serving seven or more lots or in excess of 150 feet in length, as measured from the centerline of the connecting roadway, shall provide a cul-de-sac bulb with a minimum paved diameter of 80 feet.

503.2.6 Bridges and elevated surfaces. Where a bridge or an elevated surface is part of a fire apparatus access road, the bridge shall be constructed and maintained in accordance with AASHTO HB-17. Bridges and elevated surfaces shall be designed for a live load sufficient to carry the live loads of fire apparatus. Vehicle load limits shall be posted at both entrances to bridges where required by the fire code official. Where elevated surfaces are designed for emergency vehicle use are adjacent to surfaces which are not designed for such use, approved barriers, approved signs or both shall be installed and maintained where required by the fire code official.

503.2.7 Grade. The grade of the fire apparatus access road shall be no more than 15 percent. If onsite grades exceed 15 percent, for roads serving detached Group R-3 occupancies, a design of the proposed road must be submitted during project review showing the extent and degree of overage. Onsite access roads may be permitted to exceed 15 percent if all of the dwellings accessed by the road are equipped with approved fire sprinkler systems.

503.3 Marking. Where required by the fire code official, approved signs or other approved notices shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. Signs or notices shall be consistent with criteria described in the Northshore Fire Department Access Standard and maintained a clean and legible condition at all times and be replaced or repaired when necessary to provide adequate visibility.

503.4 Obstruction of fire apparatus access roads. Fire apparatus access roads shall not be obstructed in any manner, including parking of vehicles. The minimum widths and clearances shall be maintained at all times.

503.6 Security gates. The installation of security gates across a fire apparatus access road shall be approved by the fire code official. Where security gates are installed, they shall have an approved means of emergency operation. The security gates and the emergency operation shall be maintained operational at all times. Electric gate operators, where provided, shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F2200 and must be equipped with Click2Enter or other authorized equipment that allows for operation of the gate by Fire and Police personnel from their vehicle.

15.10.065 IFC Section 506.1, Key boxes, amended.

Section 506.1 is amended by adding the following:

All occupancies equipped with an automatic sprinkler system, fire alarm system, or hazardous occupancies, or when required by the fire code official, shall have an emergency access key box mounted in an approved location.

Exception: One- and two-family dwellings.

15.10.070 IFC Section 507, Fire protection water supplies, amended.
Section 507.5.1 is amended to read as follows:

507.5.1 Where required. Where a 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, onsite fire hydrants and mains shall be provided where required by the fire code official. At least one hydrant shall be located within 400 feet of all portions of the exterior wall of the first story of the facility or building as measured by an approved route around the exterior of the building. All fire hydrants required by this section, whether existing or new shall be equipped with a 4-inch Storz fitting on the steamer port. A 4-inch Storz fitting shall also be installed on any hydrant required for protection of existing structures where the valuation of the improvement or alteration exceeds 50% of the assessed valuation or where the square footage is increased by 25% or 1,000 square feet, whichever is less.

Exceptions:

1. For one- and two-family dwellings and Group U occupancies, the maximum distance to the structure shall be 300 feet.

2. Distances may be modified by the fire code official for facilities or buildings equipped with approved automatic sprinkler systems.

15.10.075 IFC Section 510 Emergency responder radio coverage, amended.

Section 510 of the International Fire Code is hereby amended to read as follows:

510.1 Emergency responder radio coverage in new buildings. Approved radio coverage for emergency responders shall be provided within buildings meeting any of the following conditions:

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. There are floors used for human occupancy more than 30 feet below the finished floor of the lowest level of exit discharge.
5. Buildings or structures where the Fire or Police Chief determines that in-building radio coverage is critical because of its unique design, location, use or occupancy.

The radio coverage system shall be installed in accordance with Sections 510.4 through 510.5.5 of this code and with the provisions of NFPA 1221 (2019). This section shall not require improvement of the existing public safety communication systems.

Point of Information

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 on the roof.

Exceptions:

1. Buildings and areas of buildings that have minimum radio coverage signal strength levels of the King County Regional 800 MHz Radio System within the building in accordance with Section 510.4.1 without the use of a radio coverage system.
2. 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, buildings other than high-rise buildings, colleges, universities and buildings primarily occupied by Group E or I occupancies that have completed a Mobile Emergency Responder Radio Coverage application and submitted payment as outlined in the application.

510.2 Emergency responder radio coverage in existing buildings.

Existing buildings shall be provided with approved radio coverage for emergency responders as required in Chapter 11.

510.3 Permit required.

A construction permit for the installation of or modification to emergency responder radio coverage systems and related equipment is required as specified in Section 105.7.6. Maintenance performed in accordance with this code is not considered a modification and does not require a permit.

Point of Information

Prior coordination and approval from the Public Safety Radio System Operator is required before installation of an Emergency Responder Radio System. Until 2022, such approval is required from EPSCA, King County, Seattle or ValleyCom depending on the location of the installation. In 2022 PSERN will be the single operator of a county wide system. In order to be forward compatible, designers and contractors should be aware of PSERN's requirements for Distributed Antenna Systems which can be found via https://psern.org/requirements/

510.4 Technical requirements.

Systems, components and equipment required to provide the emergency responder radio coverage system shall comply with Sections 510.4.1 through 510.4.2.8.

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.

510.4.1.3 System performance. Signal strength shall be sufficient to meet the requirements of the applications being utilized by public safety for emergency operations through the coverage area as specified by the radio system manager in Section 510.4.2.2.

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.

Point of Information

BDA's must also comply with PSERN's (www.psern.org/requirements) detailed requirements, which include channelized, minimum of 28 channels, supporting analog, P25 Phase I (FDMA), and P25 Phase II (TDMA).

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.

510.4.2.6 Additional frequencies and change of frequencies.

The emergency responder radio coverage system shall be capable of modification or expansion in the event frequency changes are required by the FCC or other radio licensing authority, or additional frequencies are made available by the FCC or other radio licensing authority.

510.4.2.7 Design documents.

The fire code official shall have the authority to require "as-built" design documents and specifications for emergency responder communications coverage systems. The documents shall be in a format acceptable to the fire code official.

510.4.2.8 Radio communication antenna density.

Systems shall be engineered to minimize the near-far effect. Radio enhancement system designs shall include sufficient antenna density to address reduced gain conditions.

Exceptions:

1. Class A narrow band signal booster devices with independent AGC/ALC circuits per channel.
2. Systems where all portable devices within the same band use active power control

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. 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: 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 third-party vendor thecomplianceengine.com.

510.5.4 FCC compliance.

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

510.5.5 Mounting of the donor antenna (s). To maintain proper alignment with the system designed donor site, donor antennas shall be permanently affixed on the highest possible position on the building or where approved by the fire code official. A clearly visible sign shall be placed near the antenna stating, "movement or repositioning of this antenna is prohibited without approval from the fire code official." The antenna installation shall be in accordance with the applicable requirements in the International Building Code for weather protection of the building envelope.

510.5.6 Wiring. The backbone, antenna distribution, radiating, or any fiber-optic cables shall be rated as plenum cables. The backbone cables shall be connected to the antenna distribution, radiating, or copper cables using hybrid coupler devices of a value determined by the overall design. Backbone cables shall be routed through an enclosure that matches the building's required fire-resistance rating for shafts or interior exit stairways. The connection between the backbone cable and the antenna cables shall be made within an enclosure that matches the building's fire-resistance rating for shafts or interior exit stairways, and passage of the antenna distribution cable in and out of the enclosure shall be protected as a penetration per the International Building Code.

510.5.7 Identification Signs. Emergency responder radio coverage systems shall be identified by an approved sign located on or near the Fire Alarm Control Panel or other approved location stating "This building is equipped with an Emergency Responder Radio Coverage System. Control Equipment located in room_____".

A sign stating "Emergency Responder Radio Coverage System Equipment" shall be placed on or adjacent to the door of the room containing the main system components.

510.6 Maintenance.

The emergency responder radio coverage system shall be maintained operational at all times in accordance with Sections 510.6.1 through 510.6.47.

510.6.1 Testing and proof of compliance. The owner of the building or owner's authorized agent shall have the emergency responder radio coverage system inspected and tested annually or where structural changes occur

including additions or remodels that could materially change the original field performance tests. Testing shall consist of the following items (1) through (7):

1. In-building coverage test as required by the *fire code official* as described in Section 510.5.3 "Acceptance test procedure" or 510.6.1.1 "Alternative in-building coverage test".

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

2. Signal boosters shall be tested to verify that the gain/output level is the same as it was upon initial installation and acceptance or set to optimize the performance of the system.

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

4. If a fire alarm system is present in the building, a test shall be conducted to verify that the fire alarm system is properly supervising the emergency responder communication system as required in Section 510.4.2.5. The test is performed by simulating alarms to the fire alarm control panel. The certifications in Section 510.5.2 are sufficient for the personnel performing this testing.

5. Other active components shall be checked to verify operation within the manufacturer's specifications.

6. At the conclusion of the testing, a report, which shall verify compliance with Section 510.6.1, shall be submitted to the *fire code official* by way of the department's third-party vendor thecomplianceengine.com

7. At the conclusion of testing, a record of the inspection and maintenance along with an updated grid diagram of each floor showing tested strengths in each grid square and each critical area shall be added to the documentation maintained on the premises in accordance with Section 510.5.3.

510.6.1.1 Alternative In-building coverage test. When the comprehensive test documentation required by Section 510.5.3 is available, or the most recent full five-year test results are available if the system is older than six years, the in-building coverage test required by the fire code official in Section 510.6.1(1), may be conducted as follows:

1. 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 in the following locations shall be tested: between the fire command center or fire alarm control panel and a location outside the building; between the fire alarm control panel and each landing in each stairwell.

2. Coverage testing of signal strength shall be conducted using a calibrated spectrum analyzer for:

   (a) Three grid areas per floor. The three grid areas to be tested on each floor are the three grid areas with poorest performance in the acceptance test or the most recent annual test, whichever is more recent; and,

   (b) Each of the critical areas identified in acceptance test documentation required by Section 510.5.3, or as modified by the fire code official; and,

   (c) One grid square per serving antenna.

3. The test area boundaries shall not deviate from the areas established at the time of the acceptance test, or as modified by the fire code official. The building shall be considered to have acceptable emergency responder radio coverage when the required signal strength requirements in 510.4.1.1 and 510.4.1.2 are located in 95 percent of all areas on each floor of the building and 99 percent in Critical Areas, and any

non-functional serving antenna are repaired to function within normal ranges. If the documentation of the acceptance test or most recent previous annual test results are not available or acceptable to the fire code official, the radio coverage verification testing described in 510.5.3 shall be conducted.

Point of Information

The alternative in-building coverage test provides an alternative testing protocol for the in-building coverage test in subsection (1) of section 510.6.1. There is no change or alternative to annual testing requirements enumerated in subsections (2) – (7) of Section 510.6.1, which must be performed at the time of each annual test.

510.6.2 Additional frequencies.

The building owner shall modify or expand the emergency responder radio coverage system at his or her expense in the event frequency changes are required by the FCC or other radio licensing authority, or additional frequencies are made available by the FCC public safety radio system operator or FCC license holder. Prior approval of a public safety radio coverage system on previous frequencies does not exempt this section.

510.6.3 Nonpublic safety system.

Where other nonpublic safety amplification systems installed in buildings reduce the performance or cause interference with the emergency responder communications coverage system, the nonpublic safety amplification system shall be corrected or removed.

510.6.4 Field testing.

Agency personnel shall have the right to enter onto the property at any reasonable time to conduct field testing to verify the required level of radio coverage or to disable a system that due to malfunction or poor maintenance has the potential to impact the emergency responder radio system in the region.

15.10.080 IFC Section 901.7, Systems out of service, amended.
Section 901.7 shall be amended to read as follows:

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

15.10.085 IFC Section 903, Automatic sprinkler systems, amended.
Section 903.2, Where required, is amended as follows:

The exception has been deleted

15.10.090 IFC Section 903, Automatic sprinkler systems, amended.
Section 903.2 is amended and supplemented with the addition of a new section 903.2.13 to read:

903.2.13 Additional fire sprinkler requirements.

NEW BUILDINGS

1. An automatic sprinkler system shall be installed in all occupancies requiring 2,000 gallons per minute or more fire flow, or where the gross square footage exceeds 5,000 square feet. This applies to all buildings regardless of type or use as well as townhouses with an aggregate area 5,000 square feet or greater. Fire walls, as noted in Section 705 of the International Building Code, shall not be considered to separate a building to enable deletion of the required sprinkler system.

Exception: Single-family Detached Houses.

2. All newly constructed buildings regardless of gross square footage shall be provided with an automatic sprinkler system if adequate fire flow, hydrant spacing, or approved fire department access is not provided as required in IFC Section 503, Appendix B, and/or Title 15 of the Lake Forest Park Municipal Code.

3. An automatic sprinkler system shall be installed in newly constructed one- and two-family structures if there is not a hydrant capable of providing at least 1,500 gallons per minute of water with 20 psi residual pressure located within 300 feet of the structure, or without approved emergency vehicle access.

EXISTING BUILDINGS

1. The provisions of this section shall apply to existing buildings that are subject to alterations, repairs, modifications or similar improvements where the total cost of the work performed exceeds 50% of the King County Assessor's Office valuation of the structure. Where subsequent alterations, repairs, modifications or similar improvements occur within five years of the first permitted work, the original building valuation shall be used, and the total costs of improvements shall be accumulative.

2. The provisions of this section shall apply to existing buildings where the gross floor area of the building is increased. Additions to buildings that would result in a gross floor area greater than 5,000 square feet shall be retrofitted throughout the addition with an approved automatic sprinkler system.

Exception:

1. The floor area of an existing building may be increased by up to 25%, not to exceed 5,000 square foot floor area increase. This exception shall be allowed one time only and acknowledgement of its use shall be recorded to run with the property title prior to permit issuance.

15.10.095 IFC Section 903.3.1.1, Exempt locations.
Item 6 from Section 903.3.1.1.1 is amended to read:

6. Machine rooms, machinery spaces, control rooms and control spaces associated with traction elevators that comply with Section 8.15.5.3 of NFPA 13 (2016 edition).

15.10.100 IFC Section 903.3.1.2, NFPA 13R sprinkler systems.
Section 903.3.1.2 is amended to read:

Automatic sprinkler systems in Group R occupancies up to and including four stories in height in buildings not exceeding 60 feet in height, as measured from the lowest point of fire department access, shall be permitted to be installed throughout in accordance with NFPA 13R.

The number of stories of Group R constructed in accordance with Sections 510.2 and 510.4 of the International Building Code shall be measured from the horizontal assembly creating separate buildings.

15.10.105 IFC Section 903.4.3, Floor control valves, amended.
Section 903.4.3 is amended to read:

Section 903.4.3 Floor control valves. In multi-level buildings 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.

15.10.110 IFC Section 903.5, Testing and maintenance.
Section 903.5 is amended to read:

903.5 Testing and maintenance. Sprinkler systems shall be tested and maintained in accordance with Section 901.

903.5.1 Fire sprinkler and standpipe main/express drains shall be positioned to drain to the sanitary sewer. Additionally, maintenance or testing discharges from fire pumps shall be treated in order to comply with the National Pollution Discharge Elimination System (NPDES) requirements.

15.10.115 IFC Section 907.2, Fire alarm and detection systems, amended.
Section 907.2 is amended to read:

907.2 Where required – new buildings and structures. All occupancies exceeding 3,000 square feet gross floor area shall be required to provide an approved, monitored automatic fire detection system.

Exception: Group U or R-3 occupancies.

An approved fire alarm system installed in accordance with this code and NFPA 72 shall be provided in new buildings and structures in accordance with Sections 907.2.1 through 907.2.23 and provide occupant notification in accordance with Section 907.6, unless other requirements are provided by another section of this code. Where automatic sprinkler protection installed in accordance with Section 903.3.1.1 or 903.3.1.2 is provided and connected to the building fire alarm system, automatic heat detection required by this section shall not be required.

A minimum of one 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 devices. Where other sections of this code allow elimination of fire alarm boxes due to sprinklers, a single fire alarm box shall be installed.

EXISTING BUILDINGS

The provisions of this section shall apply to existing buildings that are subject to alterations, repairs, modifications or similar improvements where the total cost of the work performed exceeds 50% of the King County Assessor's Office valuation of the structure. Where subsequent alterations, repairs, modifications or similar improvements occur within five years of the first permitted work, the original building valuation shall be used and the total costs of improvements shall be accumulative.

15.10.120 IFC Section 5003.9, General safety precautions, amended.
Section 5003.9 is amended to read:

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.

…

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.

15.10.125 IFC 5604, explosives storage.
Section 5604.1 is amended by adding the following:

The storage of blasting agents, detonators, explosives, explosive materials and special industrial explosive devices is prohibited within the city limits.

Exception:

1. Approved storage areas in law enforcement facilities and as otherwise provided in the Municipal Code.

2. When approved by the fire code official.

15.10.130 IFC 5704 and 5706, aboveground storage tanks.

Section 5704.2.9.6.1 is amended to read as follows:

Throughout the City, the use of above ground storage tanks outside of buildings shall be limited to flammable or combustible liquids in outside above ground tanks of 2,000 gallons per tank with an aggregate capacity of 4,000 gallons per site, unless otherwise specifically approved by the fire code official. All above ground storage tanks containing flammable or combustible liquids with a capacity of 500 gallons or more shall be protected tanks designed in accordance with Section 5704.2.9.7 and UL2085, or other systems with prior approval of the fire code official. Above ground combustible liquid tanks, used for the storage of heating oil, for a single-family residence shall not exceed 300 gallons. Above ground flammable liquid tanks shall not be permitted in a residential zone or within 100 feet of a residential zone within the City, except that such tanks may be located at fire stations or municipal facilities. Temporary uses may be permitted during periods of construction with the approval of the fire code official. Permits for above ground tanks shall be approved by the fire code official prior to installation or placement.

Exception: Existing installations exceeding 2,000 gallon tank or aggregate capacity or 4,000 gallons per site shall be allowed to continue until tank replacement is necessary or tank decommissioning.

15.10.135 IFC 5707 On-Demand Mobile Fueling Operations

Section 5707 is amended to read as follows:

5701.1 General. On-demand mobile fueling operations that dispense Class I, II and III liquids into the fuel tanks of motor vehicles shall comply with Sections 5707.1 through 5707.6. 6.

Exception: Fueling from an *approved* portable container in cases of an emergency or for personal use.

5707.1.1 Approval required. Mobile fueling operations shall not be conducted without first obtaining a *permit* and approval from the *fire code official*. Mobile fueling operations shall occur only at *approved* locations. The *fire code official* is authorized to approve individual locations or geographic areas where mobile fueling is allowed.

5707.2 Mobile fueling vehicle. An on-demand mobile fueling vehicle shall be that which is utilized in on-demand fueling operations for the dispensing of Class I, II or III liquids into the fuel tanks of motor vehicles.

5707.2.1 Mobile fueling vehicle classifications. An on-demand mobile fueling vehicle shall be characterized as one of the following:

1. Tier 1 Mobile Fueling Vehicle-A tank vehicle that complies with NFPA 385 and that has chassis-mounted tanks where the aggregate capacity does not exceed 1600 gallons (6057 L).
2. Tier 2 Mobile Fueling Vehicle-A vehicle with one or more chassis-mounted tanks or chassis-mounted containers, not to exceed 110 gallons (415 L) capacity and having an aggregate capacity that does not exceed 800 gallons (3028 L) or the weight capacity of the vehicle in accordance with DOTn.
3. Tier 3 Mobile Fueling Vehicle-A vehicle that carries a maximum aggregate capacity of 60 gallons (227 L) of motor fuel in metal safety cans *listed* in accordance with UL 30 or other *approved* metal containers, each not to exceed 5 gallons (19 L) in capacity.

5707.2.2 Mobile fueling vehicle requirements. Each mobile fueling vehicle shall comply with all local, state and federal requirements, as well as the following:

1. Mobile fueling vehicles with a chassis-mounted tank in excess of 110 gallons (415 L) shall also comply with the requirements of Section 5706.6 and NFPA 385.
2. The mobile fueling vehicle and its equipment shall be maintained in good repair.
3. Safety cans and approved metal containers shall be secured to the mobile fueling vehicle except when in use.
4. Fueling a motor vehicle from tanks or containers mounted in a trailer connected to a mobile fueling vehicle shall be prohibited.

5707.3 Required documents. Documents developed to comply with Sections 5707.3.1 through 5707.3.3 shall be updated as necessary by the *owner* of the mobile fueling operation and shall be maintained in compliance with Section 108.3.

5707.3.1 Safety and emergency response plan. Mobile fueling operators shall have an *approved* written safety and emergency response plan that establishes policies and procedures for fire safety, spill prevention and control, personnel training and compliance with other applicable requirements of this code.

5707.3.2 Training records. Mobile fueling vehicles shall be operated only by designated personnel who are trained on proper fueling procedures and the safety and emergency response plan. Training records of operators shall be maintained.

5707.3.3 Site plan. Where required by the *fire code official*, a site plan shall be developed for each location or area at which mobile fueling occurs. The site plan shall be in sufficient detail to indicate the following:

1. All buildings, structures;
2. *Lot lines* or, property lines;
3. Electric car chargers;
4. Solar photovoltaic parking lot canopies;
5. Appurtenances on site and their use or function;
6. All uses adjacent to the *lot lines* of the site;
7. Fueling locations;
8. Locations of all storm drain openings and adjacent waterways or wetlands;
9. Information regarding slope, natural drainage, curbing, impounding;
10. How a spill will be kept on the site property;
11. Scale of the site plan.

5707.4 Mobile fueling areas. The mobile fueling vehicle and point of connection of the vehicle being fueled shall not occur on public streets, *public ways* or inside *buildings*. Fueling on the roof level of parking structures or other *buildings* is prohibited.

5707.4.1 Separation. The point of connection of the vehicle being fueled shall not take place within 25 feet (7620 mm) of buildings, lot lines, property lines or combustible storage. Mobile fueling vehicles shall not park within 10 feet (3048 mm) of buildings, lot lines, property lines, or combustible storage.

Exceptions:

1. The *fire code official* shall be authorized to decrease the separation distance for dispensing from metal safety cans or other *approved* metal containers in accordance with Section 5707.2.
2. The point of fueling shall not take place within 10 feet (3048 mm) of buildings, lot lines, property lines, or combustible storage when the mobile fueling vehicle has an approved vapor recovery system or is servicing vehicles with on board refueling vapor recovery.

   Where dispensing operations occur within 15 feet (4572 mm) of a storm drain, an *approved* storm drain cover or an *approved* equivalent method that will prevent any fuel from reaching the drain shall be used.

5707.4.2 Sources of ignition. Smoking, open flames and other sources of ignition shall be prohibited within

25 feet (7620 mm) of fuel dispensing activities. Signs prohibiting smoking or open flames within 25 feet (7620 mm) of the vehicle or the point of fueling shall be prominently posted on the mobile fueling vehicle. The engines of vehicles being fueled shall be shut off during fueling.

5707.4.3 Electrical equipment. Mobile fueling shall not occur within 20 feet of electrical equipment located within 18 inches of the ground unless such electrical equipment is rated for Class 1, Division 2 hazardous locations in accordance with the National Electrical Code.

5707.5 Equipment. Mobile fueling equipment shall comply with Sections 5707.5.1 through 5707.5.5.

5707.5.1 Dispensing hoses and nozzles. Where equipped, the dispensing hose shall not exceed 50 feet (15 240 mm) in length. The dispensing nozzles and hoses shall be of an *approved* and *listed* type. Where metal-to-metal contact cannot be made between the nozzle and the fuel fill opening, then a means for bonding the mobile fueling vehicle to the motor vehicle shall be provided and employed during fueling operations.

5707.5.2 Break-away device. A listed break-away device shall be provided at the nozzle.

Exception: Mobile fueling vehicles equipped with an approved brake interlock tied to the nozzle holder that prohibits movement of the mobile fueling vehicle when the nozzle is removed from its holder or tied to the delivery of fuel that prevents activation of the pumping system.

5707.5.3 Shut off valve and fuel limit. Mobile fueling vehicles shall be equipped with a listed shutoff valve assembly and a fuel limit switch set to a maximum of 30 gallons (116 L)

5707.5.4 Fire extinguisher. An *approved* portable fire extinguisher complying with Section 906 with a minimum rating of 4A:80-B:C shall be provided on the mobile fueling vehicle with signage clearly indicating its location.

5707.5.5 Spill kit. Mobile fueling vehicles shall contain a minimum 5-gallon (19 L) spill kit of an *approved* type.

5707.6 Operations. Mobile fueling vehicles shall be constantly attended during fueling operations with brakes set and warning lights in operation. Mobile fueling vehicles shall not obstruct emergency vehicle access roads.

5707.6.1 Dispensing hose. Where equipped, mobile fueling vehicles shall be positioned in a manner to preclude traffic from driving over the dispensing hose. The dispensing hose shall be properly placed on an *approved* reel or in an *approved* compartment prior to moving the mobile fueling vehicle.

5707.6.2 Drip control. Operators shall place a drip pan or an absorbent pillow under the nozzle and each fuel fill opening prior to and during dispensing operations to catch drips.

5707.6.3 Safety cones. Safety cones or other visual barriers shall be employed as warning devices to highlight the vehicle fueling area.

5707.6.4 Vehicle lights. The mobile fueling vehicle flasher lights shall be in operation while dispensing operations are in progress.

5707.6.5 Nighttime deliveries. Nighttime deliveries shall only be made in areas deemed adequately lighted by the *fire code official.*

5707.6.6. Spill reporting. Spills shall be reported in accordance with Section 5003.3.1

15.10.140 IFC 5806, flammable cryogenic fluids.

Section 5806.2 is amended to read as follows:

The storage of flammable cryogenic fluids in stationary containers is prohibited within the city limits.

15.10.145 IFC 6104, liquefied petroleum gas.

Section 6104.2 is amended to read as follows:

Throughout the City, the aggregate capacity of any one installation of liquefied petroleum gas shall not exceed five hundred (500) gallons water capacity. This capacity limit may be increased up to, but not to exceed, two thousand (2,000) gallons water capacity if the installation is not within, or closer than 100 feet of a residential zone and must be approved by the fire code official. A permit is required to install a liquefied petroleum gas tank.

Exception: Existing installations exceeding five hundred (500) gallons water capacity, but not exceeding two thousand (2,000) gallons water capacity, shall be allowed to continue.

15.10.150 IFC Appendix B, Fire Flow Requirements for Buildings, amended.

Appendix B, Sections B104.1, B104.2, B105.1, and B105.2, and the footnotes of Table B105.1, are amended to read as follows:

B104.1 General. The fire flow calculation area shall be the total floor area of all floor levels within the exterior walls, and under the horizontal projections of the roof of a building, including basements and attached garages, except as modified in Section B104.3.

B104.2 Area separation. Portions of buildings which are separated by four-hour fire walls without openings, constructed in accordance with the International Building Code, are allowed to be considered as separate fire-flow calculation areas.

B105.1 One- and two-family dwellings. The minimum fire flow requirements for one- and two- family dwellings having a fire-flow calculation area where the gross floor area, including attached garages, does not exceed 3,600 square feet (344.5 m^2) shall be 1,500 gallons per minute (3785.4 L/min). Fire flow and flow duration for dwellings having a gross square footage in excess of 3,600 square feet (344.5 m^2) shall be not less than that specified in Table B105.1 and the ISO Guide for the Determination of Needed Fire Flow.

B105.2 Buildings other than one- and two-family dwellings. The minimum fire flow and flow duration for buildings other than one- and two-family dwellings shall be as determined by utilizing Table B105.1 and the ISO Guide for the Determination of Needed Fire Flow.

Exception: A reduction in required fire flow of up to 50 percent, as approved, is allowed when the building is provided with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 of the International Building Code. Where buildings are of Type I or II construction and are a light-hazard occupancy as defined by NFPA 13, the reduction may be up to 75 percent. The resulting fire flow shall not be less than 1,500 gallons per minute (5,678 l/min) for the prescribed duration as specified in Table B105.1.

CITY OF LAKE FOREST PARK
CITY COUNCIL
AGENDA COVER SHEET

Meeting Date	July 14, 2022
Originating Department	Public Works
Contact Person	Andrew Silvia
Title	Ordinance – Code Amendments for NPDES Source Control Program Creation and Stormwater Design Manual Updates.

Legislative History

- First Presentation – May 26, 2022
- Second Presentation – July 14, 2022
- Action –

Attachments:

1. **AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LAKE FOREST PARK, WASHINGTON, AMENDING CHAPTER 16.25 OF THE LAKE FOREST PARK MUNICPAL CODE, WATER QUALITY, AND AMENDING THE FOLLOWING RELATED SECTIONS OF THE LFPMC 16.08.030, 16.08.070, 16.16.330, 16.24.010, 16.24.631, 16.24.632, 18.48.030, and 18.58.090; PROVIDING FOR SERVERABILITY AND PROVIDING AN EFFECTIVE DATE.**

Executive Summary

The attached ordinance amending six chapters of the Lake Forest Park Municipal Code will update the code's numerous references to the King County's Surface Water Design Manual (Design Manual) to reflect the current 2021version. The proposal to adopt all future amendments to the Design Manual has been deleted from the current version of the draft ordinance, but code references have been consolidated making future amendments easier. The ordinance will also establish a requirement for owners of pollutant generating sites to apply source control best management practices. The Western Washington 2019-2024 National Pollutant Discharge Elimination System (NPDES) Phase 2 Municipal Stormwater Permit ("Permit") requires adoption of the source control best management practices and that the City adopt a current surface water design manual equivalent to the manual issued by the State of Washington Department of Ecology.

Background

The Permit (Section S5.C.8) requires the implementation of a source control program for existing development and defines specific elements that must be included in the program. The first step (S5.C.8.b.i) required of permittees in implementing the source control program is to enact an ordinance establishing stormwater pollution prevention requirements for a limited number of existing public and private sites. The sites to be regulated under this new program are those that host the pollutant generating activities defined in Appendix 8 of the Permit. These include Heavy Construction, Chemical and Equipment Manufacturing, Printing and Support Activities, and other commercial and industrial activities. The source control measures that these site owners will be required to implement are defined in the King County Stormwater Pollution Prevention Manual. These include good housekeeping measures such as proper waste disposal, sweeping, labelling chemical containers appropriately, and other measures. The Department of Public Works (DPW), through its consultant Parametrix, Inc., is currently developing an inventory of regulated sites and will be required to inspect 20% of these sites annually starting in 2023.

Separately, the Permit (Section S5.C.6.a) requires that the City enact an ordinance adopting the Permit's updated stormwater management performance standards for regulated types of development. This is a routine Permit requirement that ensures the City's standards for drainage plan review and stormwater pollution prevention during construction are updated for consistency with the state's standards. Permittees satisfy this requirement by adopting the current version of the state's stormwater management design manual, or an approved equivalent. The City has adopted and used the King County Surface Water Design Manual as its chosen resource to satisfy this requirement since it was first required in 2007, and must now update the code's references to the current version of the manual. The proposed ordinance would adopt King County's current Design Manual dated2021.

Fiscal & Policy Implications

There is no impact to the City budget that will result directly from this action. Starting in 2023, DPW will be required to undertake inspections of regulated sites, maintain its site inventory, manage inspection-related resources, and conduct other programmatic work. DPW's consultant is currently developing an array of resourcing strategies and associated costs applicable to the new regulatory program, which DPW anticipates sharing with Council during development of the City's next biennial operating budget.

Alternatives

Options	***Results***
• Enact Ordinance ###	The City will remain in compliance with the Permit. DPW will continue working to develop the new source control program and assign resources to implement it. Additionally, future regulated land development and construction activities will be held to the stormwater management performance standards in the 2021 version of the King County Surface Water Design Manual.
• Do Not Enact Ordinance ###	The City will fail to comply with Sections S5.C.6.a and S5.C8.b.i. of the Permit. This could potentially lead to monetary penalties assessed by the Department of Ecology.

Staff Recommendation

Move to enact Ordinance ###.

ORDINANCE NO. 1241

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LAKE FOREST PARK, WASHINGTON, AMENDING CHAPTER 16.25 OF THE LAKE FOREST PARK MUNICIPAL CODE (LFPMC), WATER QUALITY; AND AMENDING THE FOLLOWING RELATED SECTIONS OF THE LFPMC 16.08.030, 16.08.070, 16.16.330, 16.24.010, 16.24.631, 16.24.632, 18.48.030, and 18.58.090; PROVIDING FOR SEVERABILITY AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City of Lake Forest Park is required to comply with the Western Washington Phase II Municipal Stormwater Permit, National Pollutant Discharge Elimination System (NPDES) and State Waste Discharge General Permit for discharges from Small Municipal Separate Storm Sewers in Western Washington (NPDES Phase II Permit), issued on July 1, 2019; and

WHEREAS, Section S5.C.8 of the NPDES Phase II Permit requires the implementation of a source control program for existing development and sets out specific elements that must be included in the program and dates by which they must be implemented; and

WHEREAS, the City of Lake Forest Park currently regulates source control through Chapter 16.25 of the Lake Forest Park Municipal Code (LFPMC), which includes some, but not all, of the elements of the program required by the NPDES Phase II Permit; and

WHEREAS, the NPDES Phase II Permit provides that the requirements of Section S5.C.8 of the Permit may be met by using the source control BMPs in a Phase I Program approved by the State of Washington Department of Ecology (Ecology), which includes the King County Stormwater Pollution Prevention Manual and King County Surface Water Design Manual (KCSWDM); and

WHEREAS, Section S5.C.6 of the NPDES Phase II Permit requires either the adoption of minimum requirements, thresholds, and definitions for new development, redevelopment, and construction activity in Appendix 1 of the Permit or adoption of a Phase 1 Program approved by Ecology, which includes the KCSWDM; and

WHEREAS, several sections of the LFPMC include references to an outdated version of the KCSWDM that must be updated to satisfy the requirements of NPDES Phase II Permit Section S5.C.6; and

WHEREAS, an Environmental Checklist for a non-project action was prepared under the State Environmental Policy Act, Chapter 43.21C RCW, pursuant to Chapter 197-11 WAC, and a Determination of Non-Significance ("DNS") was issued on June 20, 2022; and

WHEREAS, in accordance with the requirements set forth in RCW 36.70A.106, the City provided the Washington State Department of Commerce (Commerce) notice of the City's intent to adopt the proposed amendments on ~~_____,~~ June 9, 2022, and received notice that Commerce had granted expedited review on ~~_____~~; June 23, 2022; and

WHEREAS, the City Council held public meetings to review amendments to Chapter 16.25 LFPMC and other related sections of the LFPMC during study sessions and regular meetings on May 26, 2022; July 14, 2022, _____; and

WHEREAS, the City Council held a public hearing on July 14, ~~_____~~, 2022, regarding the proposed amendments; and

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF LAKE FOREST PARK, WASHINGTON, DO ORDAIN AS FOLLOWS:

Section 1. AMEND. The City Council of the City of Lake Forest Park hereby amends Section 16.08.030 LFPMC, Definitions, as follows:

…

8. "Design Manual" shall mean the ~~2016~~ 2021 King County Washington Surface Water Design Manual, as now existing, which is adopted by reference in Chapter 16.24 LFPMC.

…

Section 2. AMEND. The City Council of the City of Lake Forest Park hereby amends Section 16.08.070 LFPMC, Definitions, as follows:

…

FF. Rockeries. Rockeries may be used for erosion protection of cut or fill slopes. The primary function of a rockery is to protect the slope face from soil erosion and sloughing.

1. Rockeries used to protect uncontrolled fill slopes may be no higher than four feet, as measured from the bottom of the base rock.

2. Rockeries used to protect cut slopes or reinforced or engineered fill slopes may be up to a maximum height of 12 feet, as measured from the bottom of the base rock, with the approval of the building and planning department. Any rockery that is over four feet high as measured from the bottom of the base rock (cut slopes and reinforced or engineered fill slopes only) shall be designed by a geotechnical engineer.

3. A wall drain must be provided for all rockeries greater than four feet in height as measured from the bottom of the base rock. The drains shall be installed in accordance with applicable standards from the ~~2016 King County Surface Water~~ Design Manual.

4. The geotechnical engineer must provide construction monitoring and/or testing as required by the permit conditions, and submit construction inspection reports to the department for all rockeries that require design by a geotechnical engineer. For each project, or phase of a project, the geotechnical engineer must provide a final letter or report summarizing the results of the construction monitoring for each rockery, verifying that the rockery construction meets the geotechnical recommendations and design guidelines. The final letter or report must be submitted to the city of Lake Forest Park prior to the final clearing and grading inspection.

…

Section 3. AMEND. The City Council of the City of Lake Forest Park hereby amends Section 16.16.330 LFPMC, Wetlands – Permitted alterations, as follows:

…

B. Alterations to wetlands and their buffers may only be allowed for the following activities, in addition to any established in LFPMC 16.16.220 and 16.16.230, if the city determines that there is no practical alternative location for the proposed activity with less adverse impacts on the wetlands or its buffer, subject to mitigation requirements set forth in this chapter:
…

5. Stormwater Management Facilities. A wetland or its buffer may be physically or hydrologically altered to meet the requirements of an LID, runoff treatment, or flow control BMPs if all of the criteria below are met. Stormwater LID BMPs required as part of new and redevelopment projects may be considered within wetlands and their buffers. However, these areas may contain features that render LID BMPs infeasible. A site-specific characterization by a qualified professional is required to determine if and demonstrate that an LID BMP is feasible at the project site.

a. The wetland is classified as a Category IV or a Category III wetland with a habitat score of three to four points; and

b. There will be “no net loss” of functions and values of the wetland; and

c. There is no adverse effect on existing wetland plant communities by increasing the duration and magnitude of water level fluctuations; and

d. The wetland does not contain a breeding population of any native amphibian species; and

e. The hydrologic functions of the wetland can be improved as outlined in questions 3, 4, and 5 of Chart 4 and questions 2, 3, and 4 of Chart 5 in the “Guide for Selecting Mitigation Sites Using a Watershed Approach”; or the wetland is part of a priority restoration plan that achieves restoration goals identified in a shoreline master program or other local or regional watershed plan; and

f. The wetland lies in the natural routing of the runoff, and the discharge follows the natural routing; and

g. All regulations regarding stormwater and wetland management are followed, including but not limited to ~~2016 King County Surface Water~~ the Design Manual as defined in LFPMC 16.08.030 and/or other local and state wetland and stormwater codes, manuals, and permits; and

h. The structure of a wetland or its soils is not altered, or if they are altered, modification will require permits and mitigation according to LFPMC 16.16.340 so that existing functions and values are not lost.

…

Section 4. AMEND. The City Council of the City of Lake Forest Park hereby amends Section 16.24.010 LFPMC, Purpose, as follows:

A. The city council finds that this chapter is necessary to promote sound development policies and construction procedures which respect and preserve the city’s watercourses; to minimize water quality degradation and control of sedimentation of creeks, streams, ponds, lakes, and other water bodies; to protect the life, health, and property of the general public; to preserve and enhance the suitability of waters for contact recreation and fish habitat; to preserve and enhance the aesthetic quality of the waters; to maintain and protect valuable groundwater quantities, locations, and flow patterns; to ensure the safety of city roads and rights-of-way; and to decrease drainage-related damages to public and private property.

B. Surface Water Design Manual Adopted. The ~~2016~~ King County Washington Surface Water Design Manual as defined in LFPMC 16.08.030~~, as now existing ,~~ is hereby adopted by reference and is hereinafter referred to as the Design Manual.

Section 5. AMEND. The City Council of the City of Lake Forest Park hereby amends Section 16.24.631 LFPMC, Property owner responsible for stormwater system maintenance, as follows:

A. Any person or persons holding title to a property for which stormwater facilities and BMPs have been required by the city of Lake Forest Park shall be responsible for the continual operation, maintenance and repair of the stormwater facilities and BMPs in accordance with the provisions of this chapter.

B. For privately maintained stormwater facilities, the maintenance requirements specified in the ~~2016 King County Surface Water~~ Design Manual's Appendix A, Maintenance Requirements for Flow Control, Conveyance and Water Quality Facilities, shall be enforced against the owner(s) of the subject property served by the stormwater facility.

Section 6. AMEND. The City Council of the City of Lake Forest Park hereby amends Section 16.24.632 LFPMC, Maintenance covenant required for privately maintained drainage facilities, as follows:

Prior to the beneficial use of a project constructed under a city building permit or a stormwater discharge permit, the owner shall record a maintenance covenant which guarantees the city of Lake Forest Park that the stormwater facilities shall be properly operated, maintained and inspected. The restrictions set forth in such covenant shall be approved by the city, included in any instrument of conveyance of the subject property, and shall be recorded with the King County recorder's office.

A. Maintenance covenants shall remain in force for the life of the development, or until the responsibility for the operation and maintenance of the subject stormwater facilities is accepted by the city of Lake Forest Park.

B. Maintenance covenants shall include the maintenance standards specified by the ~~2016 King County Surface Water~~ Design Manual's Appendix A, Maintenance Requirements for Flow Control, Conveyance and Water Quality Facilities, a list of maintenance activities and proposed inspection intervals for each element of the private stormwater system, and a guarantee that any maintenance necessary for any element of the stormwater system will be performed to the standards specified by the ~~2016 King County Surface Water~~ Design Manual's Appendix A, Maintenance Requirements for Flow Control, Conveyance and Water Quality Facilities, and within the following schedule:

1. Within one year for wet pool facilities and retention/detention ponds;

2. Within six months for typical maintenance;

3. Within nine months for maintenance requiring revegetation;

4. Within two years for maintenance that requires capital construction of less than $25,000.

Section 7. AMEND. The City Council of the City of Lake Forest Park hereby amends Section 16.25.020 LFPMC, Definitions, as follows

The definitions in this section apply throughout this chapter unless the context clearly requires otherwise.

A. “AKART” means “all known, available and reasonable methods of prevention, control and treatment.” “AKART” represents the most current methodology that can be reasonably required for preventing, controlling or abating the pollutants associated with a discharge. “AKART” applies to both point and nonpoint sources of pollution.

B. “Best management practices” or “BMPs” mean the best available and reasonable physical, structural, managerial or behavioral activities, that, when used singly or in combination, eliminate or reduce the contamination of both surface and groundwaters.

C. “Chapter” means this chapter and any administrative rules and regulations adopted to implement this chapter.

D. “Clean Water Act” means 33 U.S.C. 1251 et seq., and any subsequent amendments thereto.

E. “Director” means the Lake Forest Park city public works director, other department directors specified in enforcement procedures established in accordance with this chapter, or any of their designees.

F. “Discharge” means throw, drain, release, dump, spill, empty, emit, or pour forth any matter or to cause or allow matter to flow, run or seep from land or be thrown, drained, released, dumped, spilled, emptied, emitted or poured into water.

G. “Drainage facility” means a constructed or engineered feature that collects, conveys, stores or treats surface and stormwater runoff. “Drainage facility” includes, but is not limited to, a constructed or engineered stream, pipeline, channel, ditch, gutter, lake, wetland, closed depression, flow control or water quality treatment facility, erosion and sediment control facility and other structure and appurtenance that provides for drainage.

H. “Groundwater” means all waters that exist beneath the land surface or beneath the bed of any stream, lake or reservoir or other body of surface water, whatever may be

the geological formation or structure in which such water stands or flows, percolates or otherwise moves

I. “Hazardous material” means any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

J. “Illicit discharge” means any direct or indirect non-stormwater discharge to the city’s storm drain system, except as expressly allowed by this chapter.

K. “Illicit connection” means any manmade conveyance that is connected to a municipal separate storm sewer without a permit, excluding roof drains and other similar type connections. Examples include sanitary sewer connections, floor drains, channels, pipelines, conduits, inlets, or outlets that are connected directly to the municipal separate storm sewer system.

L. “Municipal separate storm sewer system” (MS4) means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):

1. Owned or operated by the city of Lake Forest Park;

2. Designed or used for collecting or conveying stormwater;

3. Which is not part of a publicly owned treatment works (POTW). “POTW” means any device or system used in treatment of municipal sewage or industrial wastes of a liquid nature which is publicly owned; and

4. Which is not a combined sewer. “Combined sewer” means a system that collects sanitary sewage and stormwater in a single sewer system.

M. “Non-stormwater discharge” means any discharge to the storm drain system that is not composed entirely of stormwater.

N. “National Pollutant Discharge Elimination System” or “NPDES” means the national program for controlling pollutants from point source discharges directly into waters of the United States under the Clean Water Act.

O. “National Pollutant Discharge Elimination System (NPDES) permit” means an authorization, license or equivalent control document issued by the Environmental Protection Agency or the Washington State Department of Ecology to implement the requirements of the NPDES program.

P. “Person” means an individual and his or her agent or assign, municipality, political subdivision, government agency, partnership, corporation, business or any other entity.

Q. “Pollutant” means anything which causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; nonhazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind.

R. “Premises” means any building, lot, parcel of land, or portion of land, whether improved or unimproved, including adjacent sidewalks and parking strips.

S. “Source control BMP” means a BMP intended to prevent contaminants from entering surface and stormwater or groundwater including the modification of processes to eliminate the production or use of contaminants. “Source control BMPs” can be either structural or nonstructural. Structural source control BMPs involve the construction of a physical structure on site, or other type of physical modification to a site. An example of a structural source control BMP is building a covered storage area. A nonstructural source control BMP involves the modification or addition of managerial or behavioral practices. An example of a nonstructural source control BMP is using less toxic alternatives to current products or sweeping parking lots.

T. “Source control inventory” means an inventory that identifies publicly and privately owned institutional, commercial, and industrial sites which have the potential to generate pollutants to the MS4 and shall include: (a) Businesses and/or sites identified based on the presence of activities that are pollutant generating, and (b) Other pollutant generating sources, based on complaint response, such as: home-based businesses and multi-family sites.

UT. “State waste discharge permit” means an authorization, license, or equivalent control document issued by the Washington State Department of Ecology in accordance with Chapter 173-216 WAC.

VU. “Storm drainage system” means publicly owned facilities, including the city’s municipal separate storm sewer system, by which stormwater is collected and/or conveyed, including but not limited to any roads with drainage systems, municipal streets, gutters, curbs, inlets, piped storm drains, pumping facilities, retention and detention basins, natural and humanmade or altered drainage channels, reservoirs, and other drainage structures.

WV. “Stormwater” or “surface water” means water originating from rainfall and other precipitation that is found on ground surfaces and in drainage facilities, rivers, streams, springs, seeps, ponds, lakes, wetlands, and shallow groundwater.

XW. “Stormwater pollution prevention plan” means a document which describes the best management practices and activities to be implemented by a person to identify sources of pollution or contamination at a premises and the actions to eliminate or reduce pollutant discharges to stormwater, stormwater conveyance systems, and/or receiving waters to the maximum extent practicable.

YX. “Stormwater Pollution Prevention Manual” means the manual adopted in LFPMC 16.25.035, and supporting documentation referenced or incorporated in the manual, describing best management practices and procedures for existing facilities and existing and new activities not covered by the Surface Water Design Manual.

ZY. “Treatment BMP” means a BMP intended to remove contaminants once they are already contained in stormwater. Examples of treatment BMPs include oil/water separators, biofiltration swales and wetponds.

Section 8. AMEND. The City Council of the City of Lake Forest Park hereby amends Section 16.25.025 LFPMC, Illicit discharge into Lake Forest Park waters, as follows

A. Illicit Discharges and Connections.

1. It is unlawful for any person to discharge any contaminants into surface and stormwater, the storm drainage system, groundwater or Lake Washington. Contaminants that, if discharged, would constitute an illicit discharge include, but are not limited to, the following:

a. Trash or debris;

b. Construction materials;

c. Petroleum products including but not limited to oil, gasoline, grease, fuel oil, heating oil;

d. Antifreeze and other automotive products;

e. Metals in either particulate or dissolved form;

f. Flammable or explosive materials;

g. Radioactive material;

h. Batteries;

i. Acids, alkalis, or bases;

j. Paints, stains, resins, lacquers or varnishes;

k. Degreasers and solvents;

l. Drain cleaners;

m. Pesticides, herbicides or fertilizers;

n. Steam cleaning wastes;

o. Soaps, detergents or ammonia;

p. Swimming pool backwash;

q. Chlorine, bromine and other disinfectants;

r. Heated water;

s. Domestic animal wastes;

t. Sewage;

u. Recreational vehicle waste;

v. Animal carcasses;

w. Food wastes;

x. Bark and other fibrous materials;

y. Collected lawn clippings, leaves or branches;

z. Silt, sediment or gravel;

aa. Dyes, except as stated in subsection (D) of this section;

bb. Chemicals not normally found in uncontaminated water;

cc. Any other process-associated discharge except as otherwise allowed in this section;

dd. Any hazardous material or waste not listed above;

ee. Spa and hot tub discharges that are not thermally controlled.

2. Illicit Connections. Any connection identified by the director that could convey anything not composed entirely of surface and stormwater directly to surface and stormwater or groundwater is considered an illicit connection and is prohibited with the following exceptions:

a. Connections conveying allowable discharges;

b. Connections conveying discharges pursuant to an NPDES permit, other than an NPDES stormwater permit, or a state waste discharge permit; and

c. Connections conveying effluent from on-site sewage disposal systems to subsurface soils.

B. BMPs shall be applied to any business or residential activity that might result in prohibited discharges as specified in the Stormwater Pollution Prevention Manual or as determined necessary by the director. Activities that might result in prohibited discharges include but are not limited to following:

1. Potable water line flushing;

2. Lawn watering with potable water;

3. Dust control with potable water;

4. Automobile and boat washing;

5. Pavement and building washing;

6. Swimming pool and hot tub maintenance;

7. Auto repair and maintenance;

8. Building repair and maintenance;

9. Landscape maintenance;

10. Hazardous waste handling;

11. Solid and food waste handling; and

12. Application of pesticides.

C. Sites identified on the Source Control Inventory.~~BMPs shall be applied to business or residential activity that might result in prohibited discharges or to sites where those activities occur, as specified in the Stormwater Pollution Prevention Manual or as~~

~~determined necessary by the director, including any business or site identified in Lake Forest Park's source control inventory.~~ The inventory includes businesses and sites identified based on the presence of activities associated with the NAICS Code Major Groups 1152xx, 236-238, 311, 312, 321, 3221xx, 3222xx, 323, 325, 3241xx, 326, 316, 327, 331-336, 482, 484, 485, 493, 4881xx, 4882xx, 4884xx, 4889xx, 2211xx, 423140, 423930, 423110, 4233xx, 4237xx, 4238xx, 424930, 4244xx, 4246xx, 4247xx, 4248xx, 444, 445, 441, 447, 722, 5321xx, 5324xx, 811192, 8111xx, 8112xx, 8113xx, 8114xx, 621910, 6111xx, 6112xx, 6113xx, 6115xx, and 712. Those businesses and activities include, but are not limited to, the following, consistent with Appendix 8 to the Western Washington Phase II Municipal Stormwater Permit:

1. Support activities for animal production;

2. Construction of buildings;

3. Heavy and civil engineering construction;

4. Specialty trade contractors;

5. Beverage, food, and tobacco; wood product; and paper manufacturing;

6. Printing and related support activities;

7. Chemical; petroleum and coal; plastics and rubber; leather; nonmetallic mineral; primary and fabricated metal; machinery, computer and electronics; electrical equipment, appliance and component, and transportation equipment manufacturing;

8. Rail, transit and truck, transportation and support activities, including automobile dealers and gasoline service stations;

9. Utilities;

10. Wholesale trade of durable and nondurable goods;

11. Food and beverage stores, food services, and drinking places;

12. Rental and leasing services;

13. Repair and maintenance;

14. Ambulatory health care services and hospitals; and

15. Educational services, museums, historical sites, and similar institutions.

DC. The following types of discharges shall not be considered illicit discharges for the purpose of this chapter unless the director determines that the type of discharge, whether singly or in combination with other discharges, is causing significant contamination of surface and stormwater or groundwater:

1. Spring water;

2. Diverted stream flows;

3. Uncontaminated water from crawl space pumps, foundation drains or footing drains;

4. Lawn watering with potable water or collected rainwater;

5. Pumped groundwater flows that are uncontaminated;

6. Materials placed as part of an approved habitat restoration or bank stabilization project;

7. Natural uncontaminated surface water or groundwater;

8. Flows from riparian habitats and wetlands;

9. The following discharges from boats: engine exhaust; cooling waters; effluent from sinks; showers and laundry facilities; and treated sewage from Type I and Type II marine sanitation devices;

10. Collected rainwater that is uncontaminated;

11. Uncontaminated groundwater that seeps into or otherwise enters stormwater conveyance systems;

12. Air conditioning condensation;

13. Irrigation water from agricultural sources that is commingled with stormwater runoff; and

14. Other types of discharges as determined by the director.

ED. Dye testing is allowable but requires verbal notification to the directorLake Forest Park city engineer at least one day prior to the date of test. The King County department of public health is exempt from this requirement.

FE. A person does not violate subsection A of this section if:

1. That person has properly designed, constructed, implemented and is maintaining BMPs and is carrying out AKART as required by this chapter, but contaminants continue to enter surface and stormwater or groundwater; or

2. That person can demonstrate that there are no additional contaminants being discharged from the site above the background conditions of the water entering the site.

3. A person who, under subsection (E)(1) of this section, is not in violation of subsection A of this section is liable for any prohibited discharges through illicit connections, dumping, spills, improper maintenance of BMPs or other discharges that allow contaminants to enter surface and stormwater or groundwater.

4. Emergency response activities or other actions that must be undertaken immediately or within a time too short to allow full compliance with this chapter in order to avoid an imminent threat to public health or safety, shall be exempt from this section. The director by public rule may specify actions that qualify for this exception in city procedures. A person undertaking emergency response activities shall take steps to ensure that the discharges resulting from such activities are minimized. In addition, this person shall evaluate BMPs and the site plan, where applicable, to restrict recurrence.

GF. The public works department shall initiate an investigation within 21 days, or refer to the appropriate agency within seven days, of any reported or discovery of a suspected illicit connection. The public works department shall respond to all illicit discharges, including spills, which are determined to constitute a threat to human health, welfare or the environment. All known illicit connections to a system of conveyance owned by the city or state shall be eliminated.

Section 9. AMEND. The City Council of the City of Lake Forest Park hereby amends Section 16.25.035 LFPMC, Stormwater Pollution Prevention Manual, as follows:

A. Stormwater Pollution Prevention Manual Adopted. The 20092021 King County Stormwater Pollution Prevention Manual, as now existing and as may be amended in the future, is hereby adopted by reference.

B. Compliance with this chapter shall be achieved through the use of best management practices described in the Stormwater Pollution Prevention Manual by the owner/operator of pollutant generating sources. In applying the Stormwater Pollution Prevention Manual, the director shall first require the implementation of source control BMPs. If these are not sufficient to prevent contaminants from entering surface and stormwater or groundwater, the director may require implementation of treatment BMPs as set forth in AKART. The Lake Forest Park public works department maywill provide, upon reasonable request, available technical assistance materials and information, and

information on outside financial assistance options to persons required to comply with this chapter.

C. Where no guidance is provided in the Stormwater Pollution Prevention Manual for a specific source of pollutants, the director may authorize owner/operator to implement or adapt BMPs based on the best professional judgment of the director.

DC. BMP requirements may be met by pPersons implementing BMPs through another federal, state or local program ~~will not be required to implement the BMPs prescribed in the Stormwater Pollution Prevention Manual, unless~~ if the director determines the alternative BMPs are ineffective at reducing the discharge of contaminants. If the other program requires the development of a stormwater pollution prevention plan or other best management practices plan, the person shall make the plan available to Lake Forest Park upon request. Persons who qualify for exemptions from the Stormwater Pollution Prevention Manual include, but are not limited to, persons:

1. Required to obtain a general or individual NPDES permit from the Washington State Department of Ecology;

2. Implementing BMPs in compliance with the management program of the city's municipal NPDES permit; or

3. Identified by the director as being exempt from this section.

ED. Wherever the Stormwater Pollution Prevention Manual uses the phrase: "the County," "Department of Development and Environmental Services" (DDES) or "Water and Land Resources Division" (WLRD), it shall be deemed to refer to city of Lake Forest Park public works department or their designee. Wherever the manual uses the phrase "King County," it shall be deemed to refer to Lake Forest Park.

E.F. Failure to implement source control BMPs consistent with the Stormwater Pollution Prevention Manual shall constitute a violation of this chapter and shall be subject to enforcement as provided in this chapter.

Section 10. ADDITION. A new Section 16.25.047 LFPMC is added as follows:

16.25.047. Inspections of Source Control Inventory Sites

The Lake Forest Park public works department, or its designee, shall:

A. Annually, inspect at least 20 percent of the businesses/sites identified on the current source control inventory to assess BMP effectiveness and compliance with source control.

B. Provide information about activities that may generate pollutants and the source control requirements applicable to those activities to all identified sites with a business address, by mail, telephone, electronic communications, or in person, as well as distributing such information during site inspections.

C. Inspect all sites on the source control inventory identified through a credible complaint.

D. Determine whether each site that is inspected adequately implements required BMPs and take enforcement action as established through Section 16.25.050.

Section 11. AMEND . The City Council of the City of Lake Forest Park hereby amends Section 16.25.050 LFPMC, Enforcement, as follows:

A. The director is authorized to carry out enforcement and/or abatement actions pursuant to applicable provisions of Lake Forest Park Municipal Code, including but not limited to Chapters 1.16, 1.25 and 8.12 LFPMC, LFPMC 16.25.080, and such other provisions as may be adopted by the Lake Forest Park city council.

B. The director shall gain compliance with this chapter by requiring the implementation of BMPs and, when necessary, AKART.

C. The director, in consultation with other departments of the city of Lake Forest Park, shall develop and implement additional enforcement procedures. These procedures shall indicate how the city will investigate and respond to reports or instances of noncompliance with this chapter and shall identify by title the official(s) responsible for implementing the enforcement procedures.

D. The director is authorized to make such inspections, including the inspection of source control inventory sites as required by Section 16.25.047 LFPMC and take such actions as may be required to enforce the provisions of this chapter.

1. The director may observe best management practices or examine or sample surface and stormwater or groundwater as often as may be necessary to determine compliance with this chapter. Whenever an inspection of a property is made, the findings shall be documented~~recorded~~ and a copy of the inspection findings shall be furnished to the owner or the person in charge of the property after the conclusion of the investigation and completion of the inspection findings. The director must document each site visit, inspection report, warning letter, notice of violation or other enforcement record demonstrating an effort to bring a site into compliance, as well as a record of sites that are not inspected because the property owner denies entry.

2. When the director has made a determination that any person is violating this chapter, the director may require the violator to sample and analyze any discharge, surface and stormwater, groundwater, and/or sediment, in accordance

with sampling and analytical procedures or requirements determined by the director. If the violator is required to complete this sampling and analysis, a copy of the analysis shall be provided to the directorcity engineer.

3. If a site has failed to adequately implement BMPs, the director must:

a. Encourage compliance through follow-up action including phone calls, letters, emails, of follow-up inspections to encourage compliance.

b. If compliance is still not achieved after appropriate follow-up action, take any enforcement action available under this chapter, which, at a minimum, includes documenting inspections and sending warning letters or notices of violation.

4. The director may refer non-emergency violations to the State of Washington Department of Ecology.

E. In addition to any other penalty or method of enforcement, the City Attorneyprosecuting attorney may bring actions for injunctive or other relief to enforce this chapter.

Section 12. AMEND . The City Council of the City of Lake Forest Park hereby amends Section 18.48.030 LFPMC, Applicability, as follows:

A. An application for commercial site development permit shall be submitted for commercial development proposed on sites consisting of one or more contiguous lots legally created and zoned to permit the proposed uses.

…

D. If any of the following scenarios apply to a mixed use, multifamily, commercial and/or office proposal, then the applicant must apply for and obtain a CSDP first, prior to issuance of any other permit. In the event of any question, the code administrator or his/her designee shall be responsible for determining the applicability of CSDP requirements.

1. If three residential units or more will be located on an individual parcel. This includes three individual single-family dwelling units, townhouse units, apartment units or a combination of dwelling types. Note: Accessory dwelling units are not counted as a residential unit for purposes of this calculation.

2. Any mixed use, new office, multifamily, commercial or office building. Note: New government and institutional buildings are also included in this definition.

3. Any mixed use, office, multifamily, commercial, institutional expansion, tenant improvement or change of use that results in an increase in the number of dwelling units; an increase in impervious surface which triggers a new level of surface water review; a change in the number of ingress or egress points from the site (whether at the applicant's request or expansion in any of the following areas: building square footage, parking space requirements or peak p.m. traffic trips).

4. Any mixed use, office, multifamily, commercial, institutional expansion, tenant improvement or change of use that will impact sensitive areas, shorelines or buffers.

5. Any mixed use, office, multifamily, commercial or institutional expansion that will require drainage review in accordance with the ~~2016King County Surface Water~~ Design Manual as defined in LFPMC 16.08.030.

Section 13. AMEND . The City Council of the City of Lake Forest Park hereby amends Section 18.58.090 LFPMC, Drainage, as follows:

Drainage shall be in conformance with the city of Lake Forest Park standards and the ~~2016King County Surface Water~~ Design Manual as defined in LFPMC 16.08.030.

Section 14. SEVERABILITY. Should any portion of this ordinance, or its application to any person or circumstance, be declared unconstitutional or otherwise invalid for any reason, such decision shall not affect the validity of the remaining portions of this ordinance or its application to other persons or circumstances.

Section 15. CORRECTIONS. The City Clerk is authorized to make necessary corrections to this ordinance including, but not limited to, the correction of scrivener's/clerical errors, references, ordinance numbering, section/subsection numbers and any references thereto.

Section 16. EFFECTIVE DATE. This ordinance shall take effect five (5) days after passage and publication.

APPROVED BY A MAJORITY of the Lake Forest Park City Council this ___ day of June, 2022.

APPROVED:

_____
Jeff Johnson
Mayor

ATTEST/AUTHENTICATED:

Matthew McLean
City Clerk

APPROVED AS TO FORM:

Kim Adams Pratt
City Attorney

Introduced: _____
Adopted: _____
Posted: _____
Published: _____
Effective: _____