

AN ORDINANCE AMENDING CHAPTER 7 OF THE CODE OF ORDINANCES OF THE CITY OF LEE'S SUMMIT, MISSOURI, THE LEE'S SUMMIT BUILDING CODE BY REPEALING ARTICLES 2, 3, 4, 5, 6 AND 9; AND ADOPTING NEW ARTICLES 2, 3, 4, 5, 6 AND 9 PERTAINING TO THE SAME SUBJECT MATTER TO INCORPORATE NEW PROVISION OF THE 2018 INTERNATIONAL BUILDING CODES AND THE 2017 NATIONAL ELECTRICAL CODE AND MODIFY OR RETAIN CERTAIN EXISTING PROVISIONS OF THE BUILDING CODE AND ELECTRICAL CODE.

WHEREAS, the 2018 International Building Code, 2018 International Residential Code, 2017 National Electrical Code, 2018 International Plumbing Code, 2018 International Mechanical Code, 2018 International Fuel Gas Code and other revised building regulations have been extensively reviewed by the Development Services Department, the Fire Department, the Board of Appeals, members of professional trade associations, members of the construction community, and the Community & Economic Development Committee; and,

WHEREAS, after much technical study and ample public input, the Development Services Department, the Board of Appeals, and the Community & Economic Development Committee believe that it is in the best interests of the City of Lee's Summit to repeal in its entirety Chapter 7, Building and Building Regulations of the Code of Ordinances of the City of Lee's Summit, Missouri to remain current with the most recently published International Codes, including the 2018 International Building Code, the 2018 International Residential Code, the 2017 National Electrical Code, the 2018 International Plumbing Code, the 2018 International Mechanical Code, the 2018 International Fuel Gas Code, and State law; and,

WHEREAS, based on staff reports and public comment, the City Council desires to protect the public health, safety, and welfare by repealing Articles 2, 3, 4, 5, 6 and 9; and adopting new Articles 2, 3, 4, 5, 6 and 9 pertaining to the same subject matter; and,

WHEREAS, The City of Lee's Summit pursuant to the Lee's Summit City Charter, the Missouri State Constitution, and the City's police powers has the authority to regulate for the public health, safety, and welfare.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF LEE'S SUMMIT, MISSOURI, as follows:

SECTION 1. Chapter 7, Building and Building Regulations, of the Code of Ordinances of the City of Lee's Summit, Missouri, is hereby amended by (i) adopting into Chapter 7 those parts of the 2018 International Building Code as published by the International Code Council, Inc. (First Printing, August 2017, ISBN 978-1-60983-735-8) (the "2018 IBC") as set forth below in this Section, (ii) modifying certain sections and portions of the 2018 IBC as set forth below in this Section and (iii) retaining those portions of the current Chapter 7 as set forth below:

ARTICLE I ADMINISTRATION

No changes shall be made to the currently adopted Article I of Chapter 7, and Article I of the 2018 IBC shall not be incorporated into Chapter 7.

ARTICLE II. - BUILDING CODE

Sec. 7-200. - International Building Code adopted.

The 2018 IBC, including Appendices C and I, and the most current errata as published by the International Code Council from time to time, is hereby adopted and incorporated in this chapter as fully as if set forth herein, except for those parts or portions thereof as are specifically added or amended by the language below.

Sec. 7-201. - International Building Code deleted; Chapter 1. Administration.

Chapter 1, Administration is hereby deleted. See Article I of this chapter.

Sec. 7-202. - International Building Code amended; Section 405.1. General.

Section 405.1 is hereby amended to read as follows: Exception 7. Structures as defined in the LSCO Chapter 7, Section 7-1300 Subterranean Space Building and Fire Code.

Sec. 7-203- International Building Code amended; Section 423.4. Storm Shelters.

Section 423.4 is hereby amended to add the following language: Exception 4. Group E occupancies that undergo alterations or additions where the cost of compliance with ICC 500 Section 702 is greater than 20% of the total project cost may omit the requirements of ICC 500 Section 702 only.

Sec. 7-204. - International Building Code amended; Section 501.2. Premises identification.

Section 501.2 is hereby amended to add the following language: In multi-tenant commercial buildings where tenants have multiple entrances located on different sides of the building, each door shall be addressed. Address characters shall be capable of being illuminated by an internal or external lighting source.

Sec. 7-205. - International Building Code amended; Section 901.5. Acceptance test.

Section 901.5 is hereby amended to read as follows: Fire detection and alarm systems, fire extinguishing systems, fire hydrant systems, fire standpipe systems, fire pump systems, private fire service main and all other fire protection systems and appurtenances thereto shall be subject to acceptance test(s) as contained in the installation standards and as approved by the Code Official. The Code Official shall be notified forty-eight (48) hours before any required acceptance testing.

Sec. 7-206. - International Building Code amended; Section 903.2.4. Group F.

Section 903.2.4 Group F is hereby amended to read as follows: Group F-1. An automatic sprinkler system shall be provided throughout all buildings containing a Group F-1 occupancy where one of the following conditions exists:

1. A Group F-1 fire area exceeds 12,000 square feet (1115 m²).

2. A Group F-1 fire area is located more than two stories above grade plane.
3. The combined area of all Group F-1 fire areas on all floors, including any mezzanines, exceeds 24,000 square feet (2230 m²).
4. A Group F-1 occupancy used for the manufacture of upholstered furniture or mattresses exceeds 2,500 square feet (232 m²).

Sec. 7-207. - International Building Code amended; Section 903.2.7. Group M.

Section 903.2.7 is hereby amended as follows: An automatic sprinkler system shall be provided throughout buildings containing a Group M occupancy where one of the following conditions exist:

- A. A Group M fire area exceeds twelve thousand (12,000) square feet (1,115 m²).
- B. A Group M fire area is located more than two (2) stories above grade plane.
- C. The combined area of all Group M fire areas on all floors, including any mezzanines, exceeds twenty-four thousand (24,000) square feet (2,230 m²).
- D. A Group M occupancy used for the display and sale of upholstered furniture or mattresses exceed five thousand (5,000) square feet (464 m²).

Sec. 7-208. - International Building Code amended; Section 903.2.9. Group S-1.

Section 903.2.9 is hereby amended to read as follows: An automatic sprinkler system shall be provided throughout all buildings containing a group S-1 occupancy where one of the following conditions exists:

- A. Where a group S-1 fire area exceeds twelve thousand (12,000) square feet (1,115 m²).
- B. A group S-1 fire area is located more than two (2) stories above grade.
- C. The combined area of all group S-1 fire areas on all floors, including any mezzanines, exceeds twenty-four thousand (24,000) square feet (2,230 m²).
- D. A Group S-1 fire area used for the storage of commercial trucks or buses where the fire area exceeds five thousand (5,000) square feet (464 m²).
- E. A Group S-1 occupancy used for the storage of upholstered furniture or mattresses exceeds two thousand five hundred (2,500) square feet (232 m²).

Sec. 7-209. - International Building Code amended; Section 903.2.9.1. Repair garages.

Section 903.2.9.1 is hereby amended to read as follows: An automatic sprinkler system shall be provided throughout all buildings used as repair garages in accordance with Section 406, as shown:

- A. Buildings two (2) or more stories in height, including basements, with a fire area containing a repair garage exceeding five thousand (5,000) square feet (464 m²).

- B. Buildings no more than one story above grade plane with a fire area containing a repair garage exceeding five thousand (5,000) square feet (464 m²).
- C. Buildings with a repair garages servicing vehicles parked in basements.
- D. A Group S-1 fire area used for the repair of commercial trucks or buses where the fire area exceeds five thousand (5,000) square feet (464 m²).

Sec. 7-210. - International Building Code amended; Section 903.2.11.3. Buildings 55 feet or more in height.

Section 903.2.11.3 is hereby amended to read as follows: Buildings more than two stories in height. An automatic sprinkler system shall be installed throughout buildings with a floor level more than two stories above the lowest level of fire department vehicle access.

Exceptions:

1. Open parking garages"

Sec. 7-211. - International Building Code amended; Section 903.3.7. Fire Department connection.

Section 903.3.7 is hereby added to read as follows: The location of Fire Department connections shall be approved by the Fire Code Official. Connections shall be four-inch Storz type fittings and located within one hundred (100) feet of a fire hydrant, or as approved by the Fire Code Official.

Sec. 7-212. - International Building Code amended; Section 903.4. Sprinkler system supervision and alarms.

Section 903.4 is hereby amended to read as follows: Valves controlling the water supply for automatic sprinkler systems, pumps, tanks, water levels and temperatures, critical air pressures and waterflow switches on all sprinkler systems shall be electrically supervised by a listed fire alarm control unit.

Exceptions:

1. Automatic sprinkler systems protecting one- and two family dwellings.
2. Limited area sprinkler systems in accordance with Section 903.3.8.
3. Automatic sprinkler systems installed in accordance with NFPA 13R where a common supply main is used to supply both domestic water and the automatic sprinkler system, and a separate shutoff valve for the automatic sprinkler system is not provided.
4. Jockey pump control valves that are sealed or locked in the open position.
5. Control valves to commercial kitchen hoods, paint spray booths or dip tanks that are sealed or locked in the open position.
6. Valves controlling the fuel supply to fire pump engines that are sealed or locked in the open position.
7. Trim valves to pressure switches in dry, preaction and deluge sprinkler systems that are sealed or locked in the open position.
8. Isolation valves for the backflow prevention devices remotely located in pits which are locked and/or chained in the open position.

Sec. 7-213. - International Building Code amended; Section 903.4.2. Alarms.

Section 903.4.2 is hereby amended to read as follows: One all-weather horn/strobe shall be connected to every automatic sprinkler system on the exterior of the building above the FD connection or in an approved location. Such sprinkler water-flow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Where a fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system. Interior alarm notification appliances shall be installed as required by Section 903.4.2.1.

Sec. 7-214. - International Building Code amended; Section 903.4.2.1. Notification device.

Section 903.4.2.1 is hereby added to read as follows: Where an automatic fire sprinkler system is installed in a building, audible and visible notification appliances shall be installed throughout the building as follows:

- A. Audible notification appliances shall be installed so as to be audible at fifteen (15) dBa above sound pressure level throughout the building.
- B. Visible notification appliances shall be installed in all public and common use areas, restrooms and corridors in accordance with the spacing requirements of NFPA 72.
- C. Visible notification devices can be eliminated in normally unoccupied portions of buildings where permitted by the Fire Code Official.

Exception: The requirements of this section do not apply to Group R-3 occupancies.

Sec. 7-215. - International Building Code amended; Section 905.3. Required installations.

Section 905.3 is hereby amended to read as follows: Standpipe systems shall be provided in new buildings and structures in accordance with Sections 905.2 through 905.11, and as required by the fire code official. In buildings used for high-piled combustible storage, fire protection shall be in accordance with Chapter 32.

Sec. 7-216. - International Building Code amended; Section 905.3.1. Height.

Section 905.3.1 is hereby amended to read as follows: Class III standpipe systems shall be installed throughout buildings where any of the following conditions exist:

- 1. Three or more stories are above or below grade plane.
- 2. The floor level of the highest story is located more than two stories above the lowest level of the fire department vehicle access.
- 3. The floor level of the lowest story is located more than two stories below the highest level of fire department vehicle access.

Exceptions:

- 1. Class I standpipes are allowed in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.
- 2. Class I standpipes are allowed in Group B and E occupancies.

3. Class I manual standpipes are allowed in open parking garages where the highest floor is located not more than 150 feet (45 720 mm) above the lowest level of fire department vehicle access.
4. Class I manual dry standpipes are allowed in open parking garages that are subject to freezing temperatures, provided that the hose connections are located as required for Class II standpipes in accordance with Section 905.5.
5. Class I standpipes are allowed in basements equipped throughout with an automatic sprinkler system.
6. Class I standpipes are allowed in buildings where occupant-use hose lines will not be utilized by trained personnel or the fire department.
7. In determining the lowest level of fire department vehicle access, it shall not be required to consider either of the following:
 - a. Recessed loading docks for four vehicles or less.
 - b. Conditions where topography makes access from the fire department vehicle to the building impractical or impossible.
8. Standpipe systems are not required in Group R-3 occupancies and Group R-2 occupancies 3 stories or less where individual units egress directly to the exterior or unenclosed stairwells, and the building is equipped throughout with an automatic sprinkler system.

Sec. 7-218. - International Building Code amended; Section 905.3.4.1. Hose and cabinet.

Section 905.3.4.1 is hereby deleted.

Sec. 7-219. - International Building Code amended; Section 905.3.5. Underground buildings.

Section 905.3.5 is hereby amended to read as follows: Underground buildings shall be equipped throughout with a Class I automatic wet or manual wet standpipe system. Subterranean spaces developed by the extraction of subsurface material from underground spaces shall also be regulated by the City of Lee's Summit Subterranean Building and Fire Code.

Sec. 7-220. - International Building Code amended; Section 907.2.7.1. Occupant notification.

Section 907.2.7.1 is hereby amended to read as follows: During times that the building is occupied, the initiation of a signal from a manual fire alarm box or from a water flow switch shall not be required to activate the alarm notification appliances when an alarm signal is activated at a constantly attended location from which evacuation instructions shall be initiated over an emergency voice/alarm communication system installed in accordance with Section 907.5.2.2 and only when approved by the Fire Code Official.

Sec. 7-221. - International Building Code amended; Section 912.2 Location.

Section 912 Location is hereby amended to read as follows: With respect to hydrants, driveways, buildings and landscaping, fire department connections shall be so located that fire apparatus and hose connected to supply the system will not obstruct access to the

buildings for other fire apparatus. The location of fire department connections shall be within 100 feet of an approved fire hydrant or as approved by the fire code official.

Sec. 7-222. - International Building Code amended; Section 1008.1.9.3. Locks and latches.

Section 1008.1.9.3 is hereby amended to read as follows: Egress doors shall be readily openable from the egress side without the use of a key or special knowledge or effort.

Exceptions:

- A. Places of detention or restraint.
- B. Where egress doors are used in pairs, approved automatic flush bolts shall be permitted to be used, provided that the door leaf having the automatic flush bolts has no doorknob or surface-mounted hardware. The unlatching of any leaf shall not require more than one operation.
- C. Doors from individual dwelling units and guestrooms of Group R occupancies having an occupant load of ten (10) or less are permitted to be equipped with a night latch, dead bolt or security chain, provided such devices are openable from the inside without the use of a key or tool.

Sec. 7-223. - International Building Code amended; Section 1015.2. Guards.

Section 1015.2 Where Required is hereby amended to add the following: Guards are required at retaining walls over 30" above grade when walking surfaces are within (10) feet of the high side of the retaining wall.

Exceptions remain unchanged.

Sec. 7-224. - International Building Code amended; Section 1010.1.9.4 Locks & Latches

Section 1010.1.9.4 Locks & Latches shall be amended as follows:

"Locks and latches shall be permitted to prevent operation of doors where any of the following exist:

- 1. Places of detention or restraint.
- 2. Where egress doors are used in pairs, approved automatic flush bolts shall be permitted to be used, provided that the door leaf having the automatic flush bolts does not have a doorknob or surface-mounted hardware.
- 3. Doors from individual dwelling or sleeping units of Group R occupancies having an occupant load of 10 or less are permitted to be equipped with a night latch, dead bolt or security chain, provided such devices are openable from the inside without the use of a key or tool.
- 4. Fire doors after the minimum elevated temperature has disabled the unlatching mechanism in accordance with listed fire door test procedures.
- 5. Doors serving roofs not intended to be occupied shall be permitted to be locked, preventing entry to the building from the roof."

Exceptions:

- A. The net free cross-ventilation area shall be permitted to be reduced to one-three hundredth provided that not less than fifty (50) percent and not more than eighty (80) percent of the required ventilation area provided by ventilators located in the upper portion of the space to be ventilated at least three (3) feet above eave or cornice vents with the balance of the required ventilation provided by eave or cornice vents.
- B. The net free cross-ventilation area shall be permitted to be reduced to one-three hundredth where a Class I or II vapor barrier is installed on the warm-in-winter side of the ceiling.

Sec. 7-225. - International Building Code amended; Chapter 13. Energy efficiency.

Chapter 13 of the 2018 IBC is hereby deleted.

Sec. 7-226. - International Building Code amended; Table 1505.1.

Table 1505.1 is hereby amended by deleting footnotes a, b, and c from the table.

Sec. 7-227. - International Building Code Amended; Section 1505.5. Non-classified roofing.

Section 1505.5 is amended to read as follows: Non-classified roofing shall not be installed unless utilized for the repair of ten (10) percent or less of the total roof covering in any three-year period.

Sec. 7-228. - International Building Code Amended; Section 1511.1. Reroofing.

Section 1511.1. Reroofing is amended to add the following: Re-roofing includes any repairs of more than 10% or less of the total roof covering in any three year period. A repair of 10% or less of the total roof covering in any three year period may utilize approved roofing materials comparable to the existing roofing materials.

Sec. 7-229. - International Building Code amended; Section 1804.4.1 Site Grading.

Section 1804.4.1 Site Grading shall be amended to add the following language:

- A. All drainage facilities shall be designed to carry waters to the nearest drainage way, storm sewer conveyance, or other approved point of collection and conveyance. Erosion of ground in the area of discharge shall be prevented by installation of erosive control devices. Unless specified drainage ways and swales are specifically approved by the Building Official, abutting property lines between structures shall be designed to function as drainage ways. The toe of slopes shall set back from the property line a minimum of one foot. The area surrounding the building foundation shall have a drainage gradient as provided for in the International Building Code, as amended from time to time with draining gradient thereafter of not less than two (2) percent toward approved drainage facilities unless waived by the Building Official.
- B. Prohibited conduct: No person shall allow or cause any:

1. Obstruction to be created, installed or maintained within any drainage way, detention facility, or engineered swale which will create ponding on adjacent property, divert water onto the adjoining property, or impede drainage. Fences may be erected in such areas provided they do not unnecessarily restrict the flow of water.
2. Water from intermittent sources such as discharges from sump pumps, downspouts, foundation drains, swimming pools, swimming pool backwashes, or other similar sources excluding lawn sprinklers to be discharged closer than five (5) feet from any adjoining property line.

C. *Enforcement:* Where such conditions exist and the Code Official has given written notice of the violation, the owner of the property shall take appropriate measures to eliminate the problems caused on the adjacent property, within the time period stated on the notice, and failure to do so shall be a violation of this chapter.

Sec. 7-230. - International Building Code amended; Section 1805.4. Subsoil Drainage System

Section 1805.4. Subsoil Drainage System amended to add the following: Where foundations retain earth and enclose habitable or usable space located below grade, drains shall be provided below the floor slab. Drainage tiles, perforated pipe or other approved systems or materials shall be installed at or below the area(s) to be protected; shall be placed with positive or neutral slope to minimize the accumulation of deposits in the drainage system; and shall discharge by gravity or mechanical means to an approved storm water drainage system. The under-slab drainage system shall be installed around the inner perimeter of the area(s) to be protected, or, in a manner that will provide adequate drainage for all area(s) to be protected and is approved by the Building Official. Interior underslab drains installed on uncompacted fill material shall be supported by mechanical means which are adequately tied into the concrete slab to ensure proper drainage throughout the underslab drain(s).

Sec. 7-231. - International Building Code amended; Section 3109 Swimming Pools/Spas/Hot Tubs.

Section 3109 Swimming Pools/Spas/Hot Tubs will be deleted.

ARTICLE III. - ELECTRICAL CODE

Sec. 7-300. - National Electrical Code adopted.

The 2011 edition of the National Electrical Code as published by the National Fire Protection Association (NFPA No. 70-2017) is hereby adopted and incorporated in this chapter as fully as if set forth herein, excepting only such parts or portions thereof as are specifically added or amended as stated below.

Sec. 7-301. - National Electrical Code amended; Section 210.8(A)(5). Unfinished portions or areas of the basement not intended as habitable rooms

Section 210.8(A)(5) is hereby amended to read as follows: All 125-volt, single phase, 15- and 20- ampere receptacles installed in unfinished basements shall have ground fault circuit interrupter protection for personnel. For the purposes of this section, unfinished basements are defined as portions or areas of the basement not intended as habitable rooms and limited to storage areas, work areas, and the like.

Exceptions:

1. Receptacles that are not readily accessible such as a ceiling mounted receptacle for a garage door opener.
2. A single receptacle supplied by a dedicated branch circuit that is located and identified for a specific use by a cord-and-plug-connected appliance such as a refrigerator, freezer or sump pump.
3. A receptacle supplying only a permanently installed fire alarm or burglar alarm system.

Sec. 7-302. - National Electrical Code amended; Section 210.52(C)(5). Receptacle Outlet Location.

Section 210.52(C)(5) is hereby amended to read as follows: Receptacle outlets shall be located not more than 20 inches (508 mm) above the countertop or work surface. Receptacle outlet assemblies installed in countertops and work surfaces shall be listed for use in countertops or work surfaces. Receptacle outlets rendered not readily accessible by appliances fastened in place, appliance garages, sinks or rangetops as covered in 210.52(C)(1), Exception, or appliances occupying dedicated space shall not be considered as these required outlets.

EXCEPTION: Receptacle outlets shall be permitted to be mounted not more than 12 inches (305 mm) below the countertop or work surface in construction designed for the physically impaired or for island and peninsular countertops or work surface where the surface is flat across its entire surface and there are no means to mount a receptacle within 20 inches (508 mm) above the countertop, such as in an overhead cabinet. Receptacles mounted below the countertop or work surface in accordance with this section shall not be located where the countertop or work surface extends more than 6 inches (152 mm) beyond its support base.

Sec. 7-303. - National Electrical Code amended; Section 230.70(A)(1). Readily accessible location.

Section 230.70(A)(1) is hereby amended to read as follows: The service disconnecting means shall be installed at a readily accessible location either outside of a building or inside nearest the point of entrance of the service conductors. When service entrance conductors are more than ten (10) feet in length from the point of entry to the service panel, a separate means of disconnect must be installed at the service cable entrance to the building or structure.

ARTICLE IV. - PLUMBING CODE

Sec. 7-400. - International Plumbing Code adopted.

The 2018 edition of the International Plumbing Code, and its most current errata as published by the International Code Council from time to time is hereby adopted and incorporated in this chapter as fully as if set forth herein, excepting only such parts or portions thereof as are specifically added or amended.

Sec. 7-401. - International Plumbing Code deleted; Chapter 1. Administration.

Chapter 1, Administration is hereby deleted. See Article I of this chapter.

Sec. 7-402. - International Plumbing Code amended; Section 305.4.1. Sewer depth.

Section 305.4.1 is hereby amended to read as follows: Building sewers shall be installed a minimum of twelve (12) inches (304.8 mm) below grade.

Sec. 7-403. - International Plumbing Code amended; Section 312.10. Inspection and testing of backflow prevention assemblies.

Section 312.10 is hereby amended to read as follows: Inspection and testing of backflow prevention assemblies shall be in accordance with the policies prescribed by the Water Utilities Department of the City of Lee's Summit, MO.

Sec. 7-404. - International Plumbing Code amended; Table 403.1.

Table 403.1 is hereby amended to read as follows: Footnote g — A service sink may not be required, at the discretion of the Building Official, if deemed unnecessary due to the size, type and finish of the space.

Sec. 7-405. - International Plumbing Code amended; Section 403.4.1. Directional signage.

Section 403.4.1 is hereby deleted.

Sec. 7-406. - International Plumbing Code amended; Section 410.4. Substitution.

Section 410.4 is hereby amended to read as follows: In other occupancies, where drinking fountains are required, water coolers, bottled water dispensers or break rooms with a kitchen sink shall be permitted to be substituted for the required drinking fountains.

Sec. 7-407. - International Plumbing Code amended; Section 607.2. Hot or tempered water supply to fixtures.

Section 607.2 is hereby amended to read as follows: The developed length of hot or tempered water piping, from the source of hot water to the fixtures that require hot or tempered water, shall not exceed 100 feet (30,480mm).

Sec. 7-408. - International Plumbing Code amended; Section 608.15.2. Protection of backflow preventers.

Section 608.15.2 is hereby amended to add the following language:

Exception: In-ground back-flow devices for lawn irrigation systems.

Sec. 7-409. – International Plumbing Code amended; Section 714.1 Backwater Valves

Section 714.1 is hereby deleted.

Sec. 7-410. - International Plumbing Code amended; Section 903.1. Roof extension.

Section 903.1 is hereby amended to read as follows: Open vent pipes that extend through a roof shall be terminated not less than six (6) inches (152.4 mm) above the roof. Where a roof is to be used for assembly or as a promenade, observation deck, sunbathing deck or similar purposes, open vent pipes shall terminate not less than seven (7) feet (2,134 mm) above the roof.

Sec. 7-411. - International Plumbing Code amended; Section 918.1. General.

Section 918.1 is hereby amended to read as follows: Air admittance valve are only allowed when approved by the Administrative Authority. Vent systems utilizing air admittance valves shall comply with this section. Stack-type air admittance valves shall conform to ASSE 1050. Individual- and branch-type air admittance valves shall conform to ASSE 1051.

Sec. 7-412. - International Plumbing Code amended; Section 1002.4. Trap seals.

Section 1002.4 is hereby amended to read as follows: Each fixture trap shall have a liquid seal of not less than two (2) inches (51 mm) and not more than four (4) inches (102 mm), or deeper for special designs relating to accessible fixtures. Where a trap seal is subject to loss by evaporation, a deep-seal trap consisting of a four-inch (102 mm) seal or a trap seal primer valve shall be installed. A trap seal primer valve shall conform to ASSE 1018 or ASSE 1044.

Sec. 7-413. - International Plumbing Code amended; Section 1101.3. Prohibited drainage.

Section 1101.3 is hereby amended to read as follows: Sanitary sewer systems shall be designed, built and maintained in such a manner to prevent all storm or ground water from draining, discharging or entering into the sanitary sewer system. Connection of sump pumps, foundation drains, yard drains, gutter downspouts and any other storm water drainage receptacle(s) or system(s) are specifically prohibited from being connected to the sanitary sewer system.

Sec. 7-414. - International Plumbing Code amended; Section 1113.1.1. Pump capacity and head.

Section 1113.1.1 is hereby amended to read as follows: Sumps receiving storm water from any exposed exterior drain(s) or opening(s) shall be provided with back-up system(s) capable of assuring proper sump operation in case of power failure.

ARTICLE V. - MECHANICAL CODE

Sec. 7-500. - International Mechanical Code adopted.

The 2018 edition of the International Mechanical Code, and its most current errata as published by the International Code Council is hereby adopted and incorporated in this chapter as fully as if set forth herein, excepting only such parts or portions thereof as are specifically added or amended as stated below.

Sec. 7-501. - International Mechanical Code deleted; Chapter 1. Administration.

Chapter 1, Administration is hereby deleted. See Article I of this chapter.

Sec. 7-502. - International Mechanical Code amended; Section 401.2. Ventilation required.

Section 401.2 is hereby amended to read as follows: Every occupancy space shall be ventilated by natural means in accordance with Section 402 or by mechanical means in accordance with Section 403.

ARTICLE VI. - FUEL GAS CODE

Sec. 7-600. - International Fuel Gas Code adopted.

The 2018 edition of the International Fuel Gas Code, and its most current errata as published by the International Code Council is hereby adopted and incorporated in this chapter as fully as if set forth herein, excepting only such parts or portions thereof as are specifically added or amended as set forth below.

Sec. 7-601. - International Fuel Gas Code deleted; Chapter 1. Administration.

Chapter 1, Administration is hereby deleted. See Article I of this chapter.

Sec. 7-602. - International Fuel Gas Code amended; Section 403.4.3. Copper and brass.

Section 403.4.3 is hereby amended to read as follows: Copper and brass tubing shall not be utilized to distribute fuel gas.

Sec. 7-603. - International Fuel Gas Code amended; Section 403.4.4. Aluminum.

Section 403.4.4 is hereby amended to read as follows: Aluminum or aluminum alloy tubing shall not be utilized for the distribution of fuel gas.

Sec. 7-604. - International Fuel Gas Code amended, Section 403.5.1. Steel tubing.

Section 403.5.1 is hereby amended to read as follows: Steel tubing shall not be utilized to distribute natural gas nor shall it be utilized to distribute any other fuel gas within a building or structure.

Sec. 7-605. - International Fuel Gas Code amended, Section 403.5.2. Copper and brass tubing.

Section 403.5.2 is hereby amended to read as follows: Copper and brass tubing shall not be utilized to distribute natural gas nor shall it be utilized to distribute any other fuel gas within a building or structure.

Sec. 7-606. - International Fuel Gas Code amended, Section 403.5.3. Aluminum tubing.

Section 403.5.3 is hereby amended to read as follows: Aluminum tubing shall not be utilized to distribute natural gas nor shall it be utilized to distribute any other fuel gas within a building or structure.

Sec. 7-607. - International Fuel Gas Code amended, Section 406.4.1. Test pressure.

Section 406.4.1 is hereby amended to read as follows: The test pressure to be used shall be not less than one and one-half times the proposed maximum working pressure, but not less than ten (10) psig (68.9 kPa) irrespective of design pressure. For welded piping, and for piping carrying gas at pressures in excess of fourteen (14) inches water column pressure, the test pressure shall not be less than sixty (60) psig. Where the test pressure exceeds one hundred twenty-five (125) psig (862 kPa), the test pressure shall not exceed a value that produces a hoop stress in the piping greater than fifty (50) percent of the specified minimum yield strength of the pipe.

ARTICLE VII PRIVATE SEWAGE DISPOSAL

No changes are proposed for the currently adopted article.

ARTICLE VIII ENERGY CONSERVATION CODE

No changes are proposed for the currently adopted article.

7-900. - INTERNATIONAL RESIDENTIAL CODE ADOPTED. The 2018 edition of the International Residential Code, including appendices E, H, and J, and its most current

errata as published by the International Code Council is hereby adopted and incorporated in this chapter as fully as if set forth herein, excepting only such parts or portions thereof as are specifically added or amended.

7-901. - INTERNATIONAL RESIDENTIAL CODE DELETED; CHAPTER 1. ADMINISTRATION. Chapter 1, entitled Administration is hereby deleted. (See Article I of this Chapter)

7-902. - INTERNATIONAL RESIDENTIAL CODE DATA ENTRY; TABLE R301.2(1). TABLE R301.2(1) CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA. Table R301.2(1) shall include the following data:

Ground Snow Load: Twenty (20) pounds per square foot.

Wind Speed: Ninety (90) miles per hour.

Seismic Design Category: A

Weathering: Severe.

Frost Line Depth: Thirty-six (36) inches.

Termite: Moderate to Heavy

Decay: Slight to Moderate.

Winter Design Temperature: Six (6) degrees Fahrenheit.

Ice Shield Underlayment Required: Yes

Flood Hazards: See Article

Air Freezing Index: 927

Mean Annual Temperature: 55.5 degrees Fahrenheit

Manual J Design Criteria is hereby Deleted

7-903. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION R302.5.1 OPENING PROTECTION. Section R302.5.1 Opening Protection is amended to read as follows: Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage and residence shall be equipped with solid wood doors not less than 1 3/8ths inches (35mm) in thickness, solid or honeycomb core steel doors not less than 1 1/8ths inches (35mm) thick, or 20 minute fire-rated doors, equipped with a self closing device.

Exception: Attic access openings shall not be required to be equipped with a self closing device.

7-904. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION R303.3 BATHROOMS. Section R303.3 is hereby amended to read as follows: Bathrooms, water

closet compartments and other similar rooms shall be provided with aggregate glazing area in windows of not less than 3 square feet (0.279 m²), one-half of which must be operable.

EXCEPTION: The glazed areas shall not be required where artificial light and a mechanical ventilation system are provided. The minimum ventilation rates shall be 50 cfm (23.6L/s) for intermittent ventilation or 20 cfm (9.4 L/s) for continuous ventilation. Ventilation air from the space shall be exhausted directly to the outside or to an attic ventilated in accordance with Section R806. The point of discharge of the exhaust air shall be at least 3 feet from any opening into the building. Bathrooms which contain only a water closet or lavatory, or combination thereof, and similar rooms, may be ventilated with an approved mechanical recirculating fan or similar device designed to remove odors from the air.

7-905. - INTERNATIONAL RESIDENTIAL CODE DELETED; SECTION R303.4 MECHANICAL VENTILATION. Section R303.4 Mechanical Ventilation is hereby deleted.

7-906. – INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION R311.3.2 FLOOR ELEVATIONS FOR OTHER EXTERIOR DOORS. Section R311.3.2 Floor elevations for other exterior doors is hereby amended to read as follows: Doors other than the required egress door shall be provided with landings or floors not more than 7 ¾ inches (196 mm) below the top of the threshold.

EXCEPTION:

A landing is not required where a stairway of four or fewer risers is located on the exterior side of the door, provided the door does not swing over the stairway.

7-907.- INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION R311.7.8.5 GRIP SIZE. Section R311.7.8.5 is hereby amended to read as follows; All required handrails shall be of one of the following types or provide equivalent graspability.

1. Type I. Handrails with a circular cross section shall have an outside diameter of at least 1-1/4 inches (32mm) and not greater than 2 inches (51 mm). If the handrail is not circular it shall have a perimeter dimension of at least 4 inches (102 mm) and not greater than 6-1/4 inches (160 mm) with a maximum cross section of dimension of 2-1/4 inches (57 mm).

2. Type II. Handrails with a perimeter greater than 6-1/4 inches (160mm) shall provide a graspable finger recess area on both sides of the profile. The finger recess shall begin within a distance of 3/4 inch (19 mm) measured vertically from the tallest portion of the profile and achieve a depth of at least 5/16 inch (8mm) within 7/8 inch (22mm) below the widest portion of the profile. This required depth shall continue for at least 3/8 inch (10mm) to a level that is not less than 1-3/4 inches (45 mm) below the tallest portion of the profile. The minimum width of the handrail above the recess shall be 1-1/4 inches (32 mm) to a maximum of 2-3/4 inches (70mm). Edges shall have a minimum radius of 0.01 inches (0.25 mm).

EXCEPTION:

Handrails provided at other non-required exterior stairs may have a maximum horizontal cross-sectional dimension of 3-1/2 inches and shall be easily graspable.

7-908. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION R313 AUTOMATIC FIRE SPRINKLER SYSTEMS. Section R313 is hereby amended to read as follows: A builder of a one-and two family dwelling or townhouse shall offer to any purchaser, on or before the time of entering into the purchase contract the option, at the purchaser's cost, to install or equip fire sprinklers in the one-and two-family dwelling or townhouse. Notwithstanding any other provision of law to the contrary, no purchaser of such one- and two family dwelling or townhouse shall be denied the right to install a fire sprinkler system in such dwelling or townhouse being purchased. The provisions of this section, which are intended to mirror the requirements of section RSMo 67.281, shall expire on December 31st, 2022.

7-909. - INTERNATIONAL RESIDENTIAL CODE DELETED; SECTION R313.1 TOWNHOUSE AUTOMATIC FIRE SPRINKLER SYSTEMS. Section R313.1 Townhouse automatic fire sprinkler systems is hereby deleted.

7-910. - INTERNATIONAL RESIDENTIAL CODE DELETED; SECTION R313.2 ONE- AND TWO FAMILY DWELLING AUTOMATIC FIRE SYSTEMS. Section R313.2 One- and two family dwellings automatic fire systems is hereby deleted.

7-911. - INTERNATIONAL RESIDENTIAL CODE DELETED; R317.1.1 FIELD TREATMENT. Section R317.1.1 is hereby deleted.

7-912. - INTERNATIONAL RESIDENTIAL CODE DELETED; SECTION R318.1.2 FIELD TREATMENT. Section R318.1.2 is hereby deleted.

7-913. - INTERNATIONAL RESIDENTIAL CODE DELETED; SECTION R326 SWIMMING POOLS, SPAS AND HOT TUBS. Section 326 is hereby deleted.

7-914. - INTERNATIONAL RESIDENTIAL CODE ADDED; SECTION R401.3.1 MINIMUM STANDARDS. Section R401.3.1 is hereby added to read as follows:

A. Minimum standards: All drainage facilities shall be designed to carry waters to the nearest drainage way, storm sewer conveyance, or other approved point of collection and conveyance. Erosion of ground in the area of discharge shall be prevented by installation of erosive control devices. Unless specified drainage ways and swales are specifically approved by the building official, abutting property lines between structures shall be designed to function as drainage ways. The toe of slopes shall set back from the property line a minimum of one foot. The area surrounding the building foundation shall have a drainage gradient as provided for in the International Residential Code, as amended from time to time with a draining gradient thereafter of not less than two percent toward approved drainage facilities unless waived by the building official.

B. Prohibited conduct: No person shall allow or cause any:

1) Obstruction to be created, installed or maintained within any drainage way, detention facility, or engineered swale which will create ponding on adjacent property, divert water onto the adjoining property, or impede drainage. Fences may be erected in such areas provided they do not unnecessarily restrict the flow of water.

2) Water from intermittent sources such as discharges from sump pumps, downspouts, foundation drains, swimming pools, swimming pool backwashes, or other similar sources excluding lawn sprinklers to be discharged closer than five feet to any adjoining property line.

C. Enforcement: Where such conditions exist and the code official has given written notice of the violation, the owner of the property shall take appropriate measures to eliminate the problems caused on the adjacent property, within the time period stated in the notice, and failure to do so shall be a violation of this chapter.

7-915. - INTERNATIONAL RESIDENTIAL CODE ADDED; SECTION R403.1.1.1 FOOTING REINFORCEMENT. Section R403.1.1.1 is hereby added to read as follows; Footings for basement foundation walls shall have a minimum reinforcement consisting of not less than two No. 4 bars, uniformly spaced, located a minimum of 3 inches clear from the bottom and edges of the footing.

7-916. - INTERNATIONAL RESIDENTIAL CODE ADDED. SECTION R403.1.1.2 COLUMN PADS. Section R403.1.1.2 is hereby added and reads as follows; Unless specified otherwise, column pads shall be a minimum of 24 inches by 24 inches and 8 inches deep (24" x 24" x 8"). Reinforcement shall consist of a minimum of three No. 4 bars each way, uniformly spaced, within each column pad.

7-917. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION R404.1.7 BACKFILL PLACEMENT. Section R404.1.7 is hereby amended to read as follows; Backfill shall not be placed against the wall until the wall has sufficient strength or has been sufficiently braced to prevent damage by the backfill.

EXCEPTION: Such bracing is not required for walls supporting less than 4 feet (1219 mm) of unbalanced backfill.

7-918. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION R405.2.3 DRAINAGE SYSTEM. Section R405.2.3 is hereby amended to read as follows: A sump shall be provided to drain the porous layer, footings, and foundations that retain earth and enclose habitable or usable space located below grade that do not drain and discharge by gravity to an approved storm sewer system or to daylight. The sump shall be at least 24 inches (610mm) in diameter or 20 inches square (0.0129 m²), shall extend at least 24 inches (610mm) below the bottom of the basement floor and shall be capable of positive gravity or mechanical drainage to remove any accumulated water. Sumps receiving storm water from any exposed exterior drain(s) or opening(s) shall be provided with back-up system(s) capable of assuring proper sump operation in case of power failure. The drainage system shall discharge into an approved storm sewer system or to daylight.

7-919. - INTERNATIONAL RESIDENTIAL CODE ADDED; SECTION R506.2.5 INTERIOR UNDERSLAB DRAINS. Section R506.2.5 is hereby added to read as follows: Where foundations retain earth and enclose habitable or usable space located below grade, drains shall be provided below the floor slab. Drainage tiles, perforated pipe or other approved systems or materials shall be installed at or below the area(s) to be protected; shall be placed with positive or neutral slope to minimize the accumulation of deposits in the drainage system; and shall discharge by gravity or mechanical means to an approved storm water drainage system. The underslab drainage system shall be installed around the

inner perimeter of the area(s) to be protected, or, in a manner that will provide adequate drainage for all area(s) to be protected and is approved by the building official. Interior underslab drains installed on uncompacted fill material shall be supported by mechanical means which are adequately tied into the concrete slab to ensure proper drainage throughout the underslab drain(s).

7-920. – INTERNATIONAL RESIDENTIAL CODE DELETED; SECTION R507.9.2 LATERAL CONNECTION. Section R507.9.2 is hereby deleted.

7-921. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION R602.1 DRILLING AND NOTCHING OF THE TOP PLATE. Section R602.1 Drilling and notching of the top plate is amended to read as follows: When piping or ductwork is placed in or partly in an exterior wall or interior load bearing wall, necessitating cutting, drilling or notching of the top plate by more than 50 percent of its width, a galvanized metal tie not less than 0.054 inch thick (1.37 mm) (16 ga) and 1 ½ inches (38 mm) wide shall be fastened across and to the plate at each side of the opening with not less than four 10d (0.148 inch diameter) having a minimum length of 1 ½ inches (38 mm) at each side or equivalent. The metal tie must extend a minimum of 6 inches past the opening. See figure R602.6.1

EXCEPTION: When the entire side of a wall with the notch or cut is covered by wood structural panel sheathing.

7-922. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION R801.3 ROOF DRAINAGE. Section R801.3 is hereby amended to read as follows: All dwellings shall have a controlled method of water disposal from roofs that will collect and discharge all roof drainage to the ground surface at least three (3) feet from foundation walls or to an approved drainage system.

7-923. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION R902.1. ROOF COVERING MATERIALS. Section R902.1 Roofing covering materials is hereby amended to read as follows: Roofs shall be covered with materials as set forth in Sections R904 and R905. Except where the code requires greater protection, roof coverings for new buildings or structures or additions thereto, or roof coverings utilized for re-roofing shall be a minimum of Class C. Class A, B or C roofing shall be installed in areas designated by law as requiring their use or when the edge of the roof is less than 3 feet (914 mm) from a property line. Classes A, B and C roofing required to be listed by this section shall be tested in accordance with UL 790 or ASTM E 108. Roof assemblies with coverings of brick, masonry, slate, clay or concrete roof tile, exposed concrete roof deck, ferrous or copper shingles or sheets, and metal sheets and shingles, shall be considered Class A roof coverings.

7-924. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION R907.1 GENERAL. Section R907.1 is hereby amended to read as follows: Materials and methods of application used for re-covering or replacing an existing roof covering shall comply with the requirements of Chapter 9 as amended. Re-roofing includes any repairs of more than 10% of the total roof covering in any three year period. A repair of 10% or less of the total roof covering in any three year period may utilize approved roofing materials comparable to the existing roofing materials.

EXCEPTION: Re-roofing shall not be required to meet the minimum design slope requirement of one-quarter unit vertical in 12 units horizontal (2-percent slope) in Section R905 for roofs that provide positive roof drainage.

7-925. - INTERNATIONAL RESIDENTIAL CODE DELETED; CHAPTER 11. Chapter 11 is hereby deleted.(See Article 8 of this chapter)

7-926. - INTERNATIONAL RESIDENTIAL CODE DELETED; CHAPTER 12. MECHANICAL ADMINISTRATION. Chapter 12 is hereby deleted. (See article 1 of this chapter)

7-927. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION M1501.1 OUTDOOR DISCHARGE. Section M1501.1 is hereby amended to read as follows: The air removed by every mechanical exhaust system shall be discharged to the outdoors. Air shall not be exhausted into an attic, soffit, ridge vent or crawl space.

EXCEPTIONS:

1.) Whole-house ventilation-type attic fans that discharge into the attic space of dwelling units having private attics shall be permitted.

2.) Bathroom exhaust fans installed in accordance with amended section R303.3.

7-928. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION M1507.2 RECIRCULATION OF AIR. Section M1507.2 is hereby amended to read as follows: Exhaust air from bathrooms and toilet rooms shall not be recirculated within a residence or to another dwelling unit and shall be exhausted in accordance with amended section R303.3.

7-929.- INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION G2414.5.2 COPPER TUBING. Section G2414.5.2 is hereby amended to read as follows: Copper tubing shall comply with standard Type K or L of ASTM B 88 or ASTM B 280. Copper and brass tubing shall not be utilized to distribute natural gas nor shall it be utilized to distribute any other fuel gas within a building or structure.

7-930. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION G2417.4.1 TEST PRESSURE. Section G2417.4.1 is hereby amended to read as follows; The test pressure to be used shall be not less than one and one-half times the proposed maximum working pressure, but not less than 10 psig (68.9kPa) irrespective of design pressure. For welded piping, and for piping carrying gas at pressures in excess of fourteen (14) inches water column pressure, the test pressure shall not be less than 60 psig. Where the test pressure exceeds 125 psig (862 kPa gauge), the test pressure shall not exceed a value that produces a hoop stress in the piping greater than 50 percent of the specified minimum yield strength of the pipe.

7-931. - INTERNATIONAL RESIDENTIAL CODE DELETED; CHAPTER 25. PLUMBING ADMINISTRATION. Chapter 25 is hereby deleted. (See Article 1 of this chapter)

7-932. - INTERNATIONAL RESIDENTIAL CODE ADDED; SECTION P2601.2.1 PROHIBITED DRAINAGE AND CONNECTIONS. Section P2601.2.1 is hereby added to read as follows: Sanitary sewer systems shall be designed, built and maintained in such a

manner to prevent all storm or ground water from draining, discharging or entering into the sanitary sewer system. Connection of sump pumps, foundation drains, yard drains, gutter downspouts and any other storm water drainage receptacle(s) or system(s) are specifically prohibited from being connected to the sanitary sewer system.

7-933. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION P2603.5 FREEZING. Section P2603.5 is hereby amended to read as follows: Water, soil or waste pipe shall not be installed outside of a building, in exterior walls, in attics or crawl spaces, or in any other place subjected to freezing temperature unless adequate provision is made to protect it from freezing by insulation or heat or both. Water service pipe shall be installed not less than 42 inches in depth below grade.

7-934. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION P2603.5.1 SEWER DEPTH. Section P2603.5.1 is hereby amended to read as follows: Building sewers shall be a minimum of 12 inches below grade.

7-935.- INTERNATIONAL RESIDENTIAL CODE ADDED; SECTION P2604.5 INSPECTION. Section P2604.5 is hereby added to read as follows: Excavations required for the installation of a building drainage system shall be open trench work and shall be kept open until the piping has been inspected and approved to cover.

7-936.- INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION P2902.5.3 LAWN IRRIGATION SYSTEMS. Section P2902.5.3 is hereby amended to read as follows: The potable water supply to lawn irrigation systems shall be protected against backflow by a device approved by the Missouri Department of Natural Resources. Backflow devices installed within structures shall be installed a minimum of 6 inches away from any wall or vertical obstruction. The backflow device shall be installed between 12 inches and 48 inches above the floor and shall be accessible.

7-937.- INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION P2902.6.2 PROTECTION OF BACKFLOW PREVENTERS. Section P2902.6.2 Protection of backflow preventers is hereby amended to read as follows: Backflow preventers shall not be located in areas subject to freezing except where they can be removed by means of unions, or are protected by heat, insulation or both.

EXCEPTION: In-ground backflow preventers installed for lawn irrigation systems.

7-938. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION P3002.2 BUILDING SEWER. Section P3002.2 is hereby amended to read as follows: Building sewer piping shall be as shown in Table P3002.2. Forced main sewer piping shall conform to one of the standards for ABS plastic pipe, cast-iron pipe, copper or copper-alloy tubing, PVC plastic pipe, or pressure-rated pipe listed in Table P3002.2. In addition, building sewer piping shall be a minimum of schedule 40 PVC/ABS or equivalent unless otherwise approved by the building official.

7-939.- INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION P3005.4.2 BUILDING DRAIN AND SEWER SIZE AND SLOPE. Section P3005.4.2 is hereby amended to read as follows: Pipe sizes and slope shall be determined from Table P3005.4.2 on the basis of drainage load in fixture units (d.f.u.) computed from Table P3004.1. The minimum size of a building sewer serving a dwelling unit shall be four inches.

7-940. – INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION P3008.1 BACKWATER VALVES, Where required. Section P3008.1 is hereby deleted.

7-941.- INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION P3114.3 WHERE PERMITTED. Section P3114.3 is hereby amended to read as follows: Individual vents, branch vents, circuit vents and stack vents shall be permitted to terminate with a connection to an air admittance valve only when approved by the Administrative Authority.

7-942. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION E3601.6.2 SERVICE DISCONNECT LOCATION. Section E3601.6.2 is hereby amended to read as follows: The service disconnecting means shall be installed at a readily accessible location either outside of a building or inside nearest the point of entrance of the service conductors. When service conductors are more than 10 feet in length from the point of entry to the service panel, a separate means of disconnect shall be installed at the service cable entrance to the building or structure. Service disconnecting means shall not be installed in bathrooms. Each occupant shall have access to the disconnect serving the dwelling unit in which they reside.

7-943.- INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION E3901.4.5 RECEPTACLE OUTLET LOCATION. Section E3901.4.5 Receptacle outlet location is hereby amended to read as follows: Receptacle outlets shall be located not more than 20 inches (508 mm) above the countertop or work surface. Receptacle outlet assemblies installed in countertops and work surfaces shall be listed for use in countertops or work surfaces. Receptacle outlets rendered not readily accessible by appliances fastened in place, appliance garages, sinks or rangetops as addressed in the exception to Section 3901.4.1, or appliances occupying dedicated space shall not be considered as these required outlets.

EXCEPTION: Receptacle outlets shall be permitted to be mounted not more than 12 inches (305 mm) below the countertop or work surface in construction designed for the physically impaired or for island and peninsular countertops or work surface where the surface is flat across its entire surface and the are no means to mount a receptacle within 20 inches (508 mm) above the countertop, such as in an overhead cabinet. Receptacles mounted below the countertop or work surface in accordance with this section shall not be located where the countertop or work surface extends more than 6 inches (152 mm) beyond its support base.

7-944.- INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION E3902.2 GARAGE AND ACCESSORY BUILDING RECEPTACLES. Section E3902.2 Garage and accessory building receptacles is hereby amended to read as follows: All 125-volt, single-phase, 15- and 20- ampere receptacles installed in garages and grade level portions of unfinished accessory buildings used for storage or work areas shall have ground-fault circuit interrupter protection for personnel.

EXCEPTIONS:

1.) Receptacles that are not readily accessible such as a ceiling mounted receptacle for a garage door opener.

2.) A single receptacle supplied by a dedicated branch circuit that is located and identified for a specific use by a cord-and-plug-connected appliance such as a refrigerator, freezer or sump pump.

3.) A receptacle supplying only a permanently installed fire alarm or burglar alarm system.

7-945. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION E3902.5 UNFINISHED BASEMENT RECEPTACLES. Section E3902.5 Unfinished basement receptacles is hereby amended to read as follows: All 125-volt, single phase, 15- and 20-ampere receptacles installed in unfinished basements shall have ground fault circuit interrupter protection for personnel. For the purposes of this section, unfinished basements are defined as portions or areas of the basement not intended as habitable rooms and limited to storage areas, work areas, and the like.

Exceptions:

1.) Receptacles that are not readily accessible such as a ceiling mounted receptacle for a garage door opener.

2.) A single receptacle supplied by a dedicated branch circuit that is located and identified for a specific use by a cord-and-plug-connected appliance such as a refrigerator, freezer or sump pump.

3.) A receptacle supplying only a permanently installed fire alarm or burglar alarm system.

ARTICLE X SWIMMING POOL, SPA, AND HOT TUB CODE

No changes are proposed for the currently adopted article.

ARTICLE XI REMOVAL OF STRUCTURES

No changes are proposed for the currently adopted article.

ARTICLE XII DANGEROUS AND NUISANCE BUILDING CODE

No changes are proposed for the currently adopted article.

ARTICLE XIII SUBTERRANEAN SPACE BUILDING AND FIRE CODE

No changes are proposed for the currently adopted article.

ARTICLE XIV SECURITY CODE

No changes are proposed for the currently adopted article.

SECTION 2. That it is the intention of the City Council and it is hereby ordained that the provisions of this ordinance shall become and be made a part of the Code of Ordinances for the City of Lee's Summit, Missouri.

SECTION 3. That this ordinance shall be in full force and effect on April 1, 2019 after the date of its passage and adoption, and approval by the Mayor.

SECTION 4. That if any section, subsection, sentence, clause, phrase or portion of this Ordinance is for any reason held invalid or unconstitutional by any court of competent jurisdiction,

such portion shall be deemed a separate and independent provision and such holding shall not affect the validity of the remaining portions thereof.

PASSED by the City Council of the City of Lee's Summit, Missouri, this 8th day of January, 2019.



Mayor William A. Baird

ATTEST:



City Clerk Trisha Fowler Arcuri

APPROVED by the Mayor of said city this 11th day of January, 2019.



Mayor William A. Baird

ATTEST:



City Clerk Trisha Fowler Arcuri

APPROVED AS TO FORM:



City Attorney Brian W. Head

2018 International Residential Code Amendments

7-900. - INTERNATIONAL RESIDENTIAL CODE ADOPTED. The 2018 edition of the International Residential Code, including appendices E, H, and J, and its most current errata as published by the International Code Council is hereby adopted and incorporated in this chapter as fully as if set forth herein, excepting only such parts or portions thereof as are specifically added or amended.

7-901. - INTERNATIONAL RESIDENTIAL CODE DELETED; CHAPTER 1. ADMINISTRATION. Chapter 1, entitled Administration is hereby deleted. (See Article I of this Chapter)

7-902. - INTERNATIONAL RESIDENTIAL CODE DATA ENTRY; TABLE R301.2(1). TABLE R301.2(1) CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA. Table R301.2(1) shall include the following data:

Ground Snow Load: Twenty (20) pounds per square foot.

Wind Speed: Ninety (90) miles per hour.

Seismic Design Category: A

Weathering: Severe.

Frost Line Depth: Thirty-six (36) inches.

Termite: Moderate to Heavy

Decay: Slight to Moderate.

Winter Design Temperature: Six (6) degrees Fahrenheit.

Ice Shield Underlayment Required: Yes

Flood Hazards: See Article

Air Freezing Index: 927

Mean Annual Temperature: 55.5 degrees Fahrenheit

Manual J Design Criteria is hereby Deleted

-Added design criteria specific to this region.

7-903. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION R302.5.1 OPENING PROTECTION. Section R302.5.1 Opening Protection is amended to read as follows: Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage and residence shall be equipped with solid wood doors not less than 1 3/8ths inches (35mm) in thickness, solid or honeycomb core steel doors not less

than 1 1/8ths inches (35mm) thick, or 20 minute fire-rated doors, equipped with a self closing device.

Exception: Attic access openings shall not be required to be equipped with a self closing device.

-States that a self closing device is not required on attic access openings

7-904. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION R303.3 BATHROOMS. Section R303.3 is hereby amended to read as follows: Bathrooms, water closet compartments and other similar rooms shall be provided with aggregate glazing area in windows of not less than 3 square feet (0.279 m²), one-half of which must be openable.

EXCEPTION: The glazed areas shall not be required where artificial light and a mechanical ventilation system are provided. The minimum ventilation rates shall be 50 cfm (23.6L/s) for intermittent ventilation or 20 cfm (9.4 L/s) for continuous ventilation. Ventilation air from the space shall be exhausted directly to the outside or to an attic ventilated in accordance with Section R806. The point of discharge of the exhaust air shall be at least 3 feet from any opening into the building. Bathrooms which contain only a water closet or lavatory, or combination thereof, and similar rooms, may be ventilated with an approved mechanical recirculating fan or similar device designed to remove odors from the air.

-States that bathroom exhaust can discharge into an attic area that is vented in accordance with this code.

7-905. - INTERNATIONAL RESIDENTIAL CODE DELETED; SECTION R303.4 MECHANICAL VENTILATION. Section R303.4 Mechanical Ventilation is hereby deleted.

-Removes the threshold for outdoor air into a home dwelling.

7-906. – INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION R311.3.2 FLOOR ELEVATIONS FOR OTHER EXTERIOR DOORS. Section R311.3.2 Floor elevations for other exterior doors is hereby amended to read as follows: Doors other than the required egress door shall be provided with landings or floors not more than 7 ¾ inches (196 mm) below the top of the threshold.

EXCEPTION:

A landing is not required where a stairway of four or fewer risers is located on the exterior side of the door, provided the door does not swing over the stairway.

-Allows exterior doors other than the front door of a dwelling to have a maximum of four steps on the outside of the door instead of a landing.

7-907.- INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION R311.7.8.5 GRIP SIZE. Section R311.7.8.5 is hereby amended to read as follows; All required handrails shall be of one of the following types or provide equivalent graspability.

1. Type I. Handrails with a circular cross section shall have an outside diameter of at least 1-1/4 inches (32mm) and not greater than 2 inches (51 mm). If the handrail is not circular it shall have a perimeter dimension of at least 4 inches (102 mm) and not greater than 6-1/4 inches (160 mm) with a maximum cross section of dimension of 2-1/4 inches (57 mm).

2. Type II. Handrails with a perimeter greater than 6-1/4 inches (160mm) shall provide a graspable finger recess area on both sides of the profile. The finger recess shall begin within a distance of 3/4 inch (19 mm) measured vertically from the tallest portion of the profile and achieve a depth of at least 5/16 inch (8mm) within 7/8 inch (22mm) below the widest portion of the profile. This required depth shall continue for at least 3/8 inch (10mm) to a level that is not less than 1-3/4 inches (45 mm) below the tallest portion of the profile. The minimum width of the handrail above the recess shall be 1-1/4 inches (32 mm) to a maximum of 2-3/4 inches (70mm). Edges shall have a minimum radius of 0.01 inches (0.25 mm).

EXCEPTION:

Handrails provided at other non-required exterior stairs may have a maximum horizontal cross-sectional dimension of 3-1/2 inches and shall be easily graspable.

-Allows for a 2X4 laid flat as a suitable handrail for a stairway on an exterior deck.

7-908. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION R313 AUTOMATIC FIRE SPRINKLER SYSTEMS. Section R313 is hereby amended to read as follows: A builder of a one-and two family dwelling or townhouse shall offer to any purchaser, on or before the time of entering into the purchase contract the option, at the purchaser's cost, to install or equip fire sprinklers in the one-and two-family dwelling or townhouse. Notwithstanding any other provision of law to the contrary, no purchaser of such one- and two family dwelling or townhouse shall be denied the right to install a fire sprinkler system in such dwelling or townhouse being purchased. The provisions of this section, which are intended to mirror the requirements of section RSMo 67.281, shall expire on December 31st, 2022.

-Amended to comply with state statute.

7-909. - INTERNATIONAL RESIDENTIAL CODE DELETED; SECTION R313.1 TOWNHOUSE AUTOMATIC FIRE SPRINKLER SYSTEMS. Section R313.1 Townhouse automatic fire sprinkler systems is hereby deleted.

-Amended to comply with state statute.

7-910. - INTERNATIONAL RESIDENTIAL CODE DELETED; SECTION R313.2 ONE- AND TWO FAMILY DWELLING AUTOMATIC FIRE SYSTEMS. Section R313.2 One- and two family dwellings automatic fire systems is hereby deleted.

-Amended to comply with state statute.

7-911. - INTERNATIONAL RESIDENTIAL CODE DELETED; R317.1.1 FIELD TREATMENT. Section R317.1.1 is hereby deleted.

-Deletes the requirement for field treatment of cut ends of treated lumber.

7-912. - INTERNATIONAL RESIDENTIAL CODE DELETED; SECTION R318.1.2 FIELD TREATMENT. Section R318.1.2 is hereby deleted.

-Deletes the requirement for field treatment of cut ends of treated lumber.

7-913. – INTERNATIONAL RESIDENTIAL CODE DELETED; SECTION R326 SWIMMING POOLS, SPAS AND HOT TUBS. Section 326 is hereby deleted.

-Deletes the reference to the Swimming Pools, Spas and Hot Tubs code that is not currently adopted.

7-914. - INTERNATIONAL RESIDENTIAL CODE ADDED; SECTION R401.3.1 MINIMUM STANDARDS. Section R401.3.1 is hereby added to read as follows: A. Minimum standards: All drainage facilities shall be designed to carry waters to the nearest drainage way, storm sewer conveyance, or other approved point of collection and conveyance. Erosion of ground in the area of discharge shall be prevented by installation of erosive control devices. Unless specified drainage ways and swales are specifically approved by the building official, abutting property lines between structures shall be designed to function as drainage ways. The toe of slopes shall set back from the property line a minimum of one foot. The area surrounding the building foundation shall have a drainage gradient as provided for in the International Residential Code, as amended from time to time with a draining gradient thereafter of not less than two percent toward approved drainage facilities unless waived by the building official.

B. Prohibited conduct: No person shall allow or cause any:

- 1) Obstruction to be created, installed or maintained within any drainage way, detention facility, or engineered swale which will create ponding on adjacent property, divert water onto the adjoining property, or impede drainage. Fences may be erected in such areas provided they do not unnecessarily restrict the flow of water.
- 2) Water from intermittent sources such as discharges from sump pumps, downspouts, foundation drains, swimming pools, swimming pool backwashes, or other similar sources excluding lawn sprinklers to be discharged closer than five feet to any adjoining property line.

C. Enforcement: Where such conditions exist and the code official has given written notice of the violation, the owner of the property shall take appropriate measures to eliminate the problems caused on the adjacent property, within the time period stated in the notice, and failure to do so shall be a violation of this chapter.

-Added storm water provisions that more clearly define acceptable discharge.

7-915. - INTERNATIONAL RESIDENTIAL CODE ADDED; SECTION R403.1.1.1 FOOTING REINFORCEMENT. Section R403.1.1.1 is hereby added to read as follows; Footings for basement foundation walls shall have a minimum reinforcement consisting of not less than two No. 4 bars, uniformly spaced, located a minimum of 3 inches clear from the bottom and edges of the footing.

-States a minimum standard for footing size and reinforcement.

7-916. - INTERNATIONAL RESIDENTIAL CODE ADDED. SECTION R403.1.1.2 COLUMN PADS. Section R403.1.1.2 is hereby added and reads as follows; Unless specified otherwise, column pads shall be a minimum of 24 inches by 24 inches and 8 inches deep (24" x 24" x 8"). Reinforcement shall consist of a minimum of three No. 4 bars each way, uniformly spaced, within each column pad.

-States a minimum standard for column pad size and reinforcement.

7-917. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION R404.1.7 BACKFILL PLACEMENT. Section R404.1.7 is hereby amended to read as follows; Backfill shall not be placed against the wall until the wall has sufficient strength or has been sufficiently braced to prevent damage by the backfill.

EXCEPTION: Such bracing is not required for walls supporting less than 4 feet (1219 mm) of unbalanced backfill.

-States that a concrete foundation wall can be backfilled once it has cured to a sufficient strength.

7-918. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION R405.2.3 DRAINAGE SYSTEM. Section R405.2.3 is hereby amended to read as follows: A sump shall be provided to drain the porous layer, footings, and foundations that retain earth and enclose habitable or usable space located below grade that do not drain and discharge by gravity to an approved storm sewer system or to daylight. The sump shall be at least 24 inches (610mm) in diameter or 20 inches square (0.0129 m²), shall extend at least 24 inches (610mm) below the bottom of the basement floor and shall be capable of positive gravity or mechanical drainage to remove any accumulated water. Sumps receiving storm water from any exposed exterior drain(s) or opening(s) shall be provided with back-up system(s) capable of assuring proper sump operation in case of power failure. The drainage system shall discharge into an approved storm sewer system or to daylight.

-Requires sump pumps that receive discharge from exterior daylight drains shall have a battery backup system installed.

7-919. - INTERNATIONAL RESIDENTIAL CODE ADDED; SECTION R506.2.5 INTERIOR UNDERSLAB DRAINS. Section R506.2.5 is hereby added to read as follows: Where foundations retain earth and enclose habitable or usable space located below grade, drains shall be provided below the floor slab. Drainage tiles, perforated pipe or other approved systems or materials shall be installed at or below the area(s) to be protected; shall be placed with positive or neutral slope to minimize the accumulation of deposits in the drainage system; and shall discharge by gravity or mechanical means to an approved storm water drainage system. The underslab drainage system shall be installed around the inner perimeter of the area(s) to be protected, or, in a manner that will provide adequate drainage for all area(s) to be protected and is approved by the building official. Interior underslab drains installed on

uncompacted fill material shall be supported by mechanical means which are adequately tied into the concrete slab to ensure proper drainage throughout the underslab drain(s).

-Requires an interior drain tile under basement floor slabs to help prevent damage caused from hydrostatic pressure from ground water.

7-920. – INTERNATIONAL RESIDENTIAL CODE DELETED; SECTION R507.9.2 LATERAL CONNECTION. Section R507.9.2 is hereby deleted.

-Deleted the requirement and reference to a diagram of a device installed on exterior decks.

7-921. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION R602.1 DRILLING AND NOTCHING OF THE TOP PLATE. Section R602.1 Drilling and notching of the top plate is amended to read as follows: When piping or ductwork is placed in or partly in an exterior wall or interior load bearing wall, necessitating cutting, drilling or notching of the top plate by more than 50 percent of its width, a galvanized metal tie not less than 0.054 inch thick (1.37 mm) (16 ga) and 1 ½ inches (38 mm) wide shall be fastened across and to the plate at each side of the opening with not less than four 10d (0.148 inch diameter) having a minimum length of 1 ½ inches (38 mm) at each side or equivalent. The metal tie must extend a minimum of 6 inches past the opening. See figure R602.6.1

EXCEPTION: When the entire side of a wall with the notch or cut is covered by wood structural panel sheathing.

-Reduces the amount of nails required on each side of the over notched top plate from 8 nails to 4.

7-922. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION R801.3 ROOF DRAINAGE. Section R801.3 is hereby amended to read as follows: All dwellings shall have a controlled method of water disposal from roofs that will collect and discharge all roof drainage to the ground surface at least three (3) feet from foundation walls or to an approved drainage system.

-Requires downspout discharge a minimum of 3 feet from the foundation wall.

7-223. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION R902.1. ROOF COVERING MATERIALS. Section R902.1 Roofing covering materials is hereby amended to read as follows: Roofs shall be covered with materials as set forth in Sections R904 and R905. Except where the code requires greater protection, roof coverings for new buildings or structures or additions thereto, or roof coverings utilized for re-roofing shall be a minimum of Class C. Class A, B or C roofing shall be installed in areas designated by law as requiring their use or when the edge of the roof is less than 3 feet (914 mm) from a property line. Classes A, B and C roofing required to be listed by this section shall be tested in accordance with UL 790 or ASTM E 108. Roof assemblies with coverings of brick, masonry, slate, clay or concrete roof tile, exposed concrete roof deck, ferrous or copper shingles or sheets, and metal sheets and shingles, shall be considered Class A roof coverings.

-Establishes a minimum roof covering material for flame spread.

7-924. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION R907.1 GENERAL. Section R907.1 is hereby amended to read as follows: Materials and methods of application used for re-covering or replacing an existing roof covering shall comply with the requirements of Chapter 9 as amended. Re-roofing includes any repairs of more than 10% of the total roof covering in any three year period. A repair of 10% or less of the total roof covering in any three year period may utilize approved roofing materials comparable to the existing roofing materials.

EXCEPTION: Re-roofing shall not be required to meet the minimum design slope requirement of one-quarter unit vertical in 12 units horizontal (2-percent slope) in Section R905 for roofs that provide positive roof drainage.

-Defines what is considered re-roofing.

7-925. - INTERNATIONAL RESIDENTIAL CODE DELETED; CHAPTER 11. Chapter 11 is hereby deleted.(See Article 8 of this chapter)

-Deletes the energy provisions of the IRC.

7-926. - INTERNATIONAL RESIDENTIAL CODE DELETED; CHAPTER 12. MECHANICAL ADMINISTRATION. Chapter 12 is hereby deleted. (See article 1 of this chapter)

7-927. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION M1501.1 OUTDOOR DISCHARGE. Section M1501.1 is hereby amended to read as follows: The air removed by every mechanical exhaust system shall be discharged to the outdoors. Air shall not be exhausted into an attic, soffit, ridge vent or crawl space.

EXCEPTIONS:

- 1.) Whole-house ventilation-type attic fans that discharge into the attic space of dwelling units having private attics shall be permitted.
- 2.) Bathroom exhaust fans installed in accordance with amended section R303.3.

--States that bathroom exhaust can discharge into an attic area that is vented in accordance with this code.

7-928. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION M1507.2 RECIRCULATION OF AIR. Section M1507.2 is hereby amended to read as follows: Exhaust air from bathrooms and toilet rooms shall not be recirculated within a residence or to another dwelling unit and shall be exhausted in accordance with amended section R303.3.

-States that bathroom exhaust can discharge into an attic area that is vented in accordance with this code.

7-929.- INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION G2414.5.2 COPPER TUBING. Section G2414.5.2 is hereby amended to read as follows: Copper tubing shall comply with standard Type K or L of ASTM B 88 or ASTM B 280. Copper and brass tubing shall not be

utilized to distribute natural gas nor shall it be utilized to distribute any other fuel gas within a building or structure.

-States that copper tubing is prohibited material for distributing natural gas.

7-930. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION G2417.4.1 TEST PRESSURE. Section G2417.4.1 is hereby amended to read as follows; The test pressure to be used shall be not less than one and one-half times the proposed maximum working pressure, but not less than 10 psig (68.9kPa) irrespective of design pressure. For welded piping, and for piping carrying gas at pressures in excess of fourteen (14) inches water column pressure, the test pressure shall not be less than 60 psig. Where the test pressure exceeds 125 psig (862 kPa gauge), the test pressure shall not exceed a value that produces a hoop stress in the piping greater than 50 percent of the specified minimum yield strength of the pipe.

-States the minimum guidelines for testing a fuel gas system.

7-931. - INTERNATIONAL RESIDENTIAL CODE DELETED; CHAPTER 25. PLUMBING ADMINISTRATION. Chapter 25 is hereby deleted. (See Article 1 of this chapter)

7-932. - INTERNATIONAL RESIDENTIAL CODE ADDED; SECTION P2601.2.1 PROHIBITED DRAINAGE AND CONNECTIONS. Section P2601.2.1 is hereby added to read as follows: Sanitary sewer systems shall be designed, built and maintained in such a manner to prevent all storm or ground water from draining, discharging or entering into the sanitary sewer system. Connection of sump pumps, foundation drains, yard drains, gutter downspouts and any other storm water drainage receptacle(s) or system(s) are specifically prohibited from being connected to the sanitary sewer system.

-States prohibited connections to a sanitary sewer service system.

7-933. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION P2603.5 FREEZING. Section P2603.5 is hereby amended to read as follows: Water, soil or waste pipe shall not be installed outside of a building, in exterior walls, in attics or crawl spaces, or in any other place subjected to freezing temperature unless adequate provision is made to protect it from freezing by insulation or heat or both. Water service pipe shall be installed not less than 42 inches in depth below grade.

-States the minimum burial depth for a water service line.

7-934. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION P2603.5.1 SEWER DEPTH. Section P2603.5.1 is hereby amended to read as follows: Building sewers shall be a minimum of 12 inches below grade.

-States the minimum burial depth for a sanitary sewer service line.

7-935.- INTERNATIONAL RESIDENTIAL CODE ADDED; SECTION P2604.5 INSPECTION. Section P2604.5 is hereby added to read as follows: Excavations required for the installation of a building drainage system shall be open trench work and shall be kept open until the piping has been inspected and approved to cover.

-States guidelines for sanitary sewer service lines for visual inspection.

7-936.- INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION P2902.5.3 LAWN IRRIGATION SYSTEMS. Section P2902.5.3 is hereby amended to read as follows: The potable water supply to lawn irrigation systems shall be protected against backflow by a device approved by the Missouri Department of Natural Resources. Backflow devices installed within structures shall be installed a minimum of 6 inches away from any wall or vertical obstruction. The backflow device shall be installed between 12 inches and 48 inches above the floor and shall be accessible.

-States the backflow device installed on lawn irrigation systems shall comply with Missouri Department of Natural Resources.

7-937.- INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION P2902.6.2 PROTECTION OF BACKFLOW PREVENTERS. Section P2902.6.2 Protection of backflow preventers is hereby amended to read as follows: Backflow preventers shall not be located in areas subject to freezing except where they can be removed by means of unions, or are protected by heat, insulation or both.

EXCEPTION: In-ground backflow preventers installed for lawn irrigation systems.

-Allows backflow devices for irrigation systems to be installed at a depth less than the frost line.

7-938. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION P3002.2 BUILDING SEWER. Section P3002.2 is hereby amended to read as follows: Building sewer piping shall be as shown in Table P3002.2. Forced main sewer piping shall conform to one of the standards for ABS plastic pipe, cast-iron pipe, copper or copper-alloy tubing, PVC plastic pipe, or pressure-rated pipe listed in Table P3002.2. In addition, building sewer piping shall be a minimum of schedule 40 PVC/ABS or equivalent unless otherwise approved by the building official.

-Establishes a minimum material for sewer service.

7-939.- INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION P3005.4.2 BUILDING DRAIN AND SEWER SIZE AND SLOPE. Section P3005.4.2 is hereby amended to read as follows: Pipe sizes and slope shall be determined from Table P3005.4.2 on the basis of drainage load in fixture units (d.f.u.) computed from Table P3004.1. The minimum size of a building sewer serving a dwelling unit shall be four inches.

-Establishes a minimum size for building sewer service.

7-940.- INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION P3114.3 WHERE PERMITTED. Section P3114.3 is hereby amended to read as follows: Individual vents, branch vents, circuit vents and stack vents shall be permitted to terminate with a connection to an air admittance valve only when approved by the Administrative Authority.

-States air admittance valves are only approved to be installed when approved.

7-941. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION E3601.6.2 SERVICE DISCONNECT LOCATION. Section E3601.6.2 is hereby amended to read as follows: The service disconnecting means shall be installed at a readily accessible location either outside of a building or inside nearest the point of entrance of the service conductors. When service conductors are more than 10 feet in length from the point of entry to the service panel, a separate means of disconnect shall be installed at the service cable entrance to the building or structure. Service disconnecting means shall not be installed in bathrooms. Each occupant shall have access to the disconnect serving the dwelling unit in which they reside.

-States a maximum distance for a disconnect inside a building.

7-942.- INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION E3901.4.5 RECEPTACLE OUTLET LOCATION. Section E3901.4.5 Receptacle outlet location is hereby amended to read as follows: Receptacle outlets shall be located not more than 20 inches (508 mm) above the countertop or work surface. Receptacle outlet assemblies installed in countertops and work surfaces shall be listed for use in countertops or work surfaces. Receptacle outlets rendered not readily accessible by appliances fastened in place, appliance garages, sinks or rangetops as addressed in the exception to Section 3901.4.1, or appliances occupying dedicated space shall not be considered as these required outlets.

EXCEPTION: Receptacle outlets shall be permitted to be mounted not more than 12 inches (305 mm) below the countertop or work surface in construction designed for the physically impaired or for island and peninsular countertops or work surface where the surface is flat across its entire surface and there are no means to mount a receptacle within 20 inches (508 mm) above the countertop, such as in an overhead cabinet. Receptacles mounted below the countertop or work surface in accordance with this section shall not be located where the countertop or work surface extends more than 6 inches (152 mm) beyond its support base.

-Allows receptacles to be installed on the side of island countertops that do not have a backsplash.

7-943.- INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION E3902.2 GARAGE AND ACCESSORY BUILDING RECEPTACLES. Section E3902.2 Garage and accessory building receptacles is hereby amended to read as follows: All 125-volt, single-phase, 15- and 20- ampere receptacles installed in garages and grade level portions of unfinished accessory buildings used for storage or work areas shall have ground-fault circuit interrupter protection for personnel.

EXCEPTIONS:

- 1.) Receptacles that are not readily accessible such as a ceiling mounted receptacle for a garage door opener.
- 2.) A single receptacle supplied by a dedicated branch circuit that is located and identified for a specific use by a cord-and-plug-connected appliance such as a refrigerator, freezer or sump pump.

3.) A receptacle supplying only a permanently installed fire alarm or burglar alarm system.

-Allows for receptacles in garages that are dedicated for specific appliances to not be protected from ground-fault.

7-944. - INTERNATIONAL RESIDENTIAL CODE AMENDED; SECTION E3902.5 UNFINISHED BASEMENT RECEPTACLES. Section E3902.5 Unfinished basement receptacles is hereby amended to read as follows: All 125-volt, single phase, 15- and 20- ampere receptacles installed in unfinished basements shall have ground fault circuit interrupter protection for personnel. For the purposes of this section, unfinished basements are defined as portions or areas of the basement not intended as habitable rooms and limited to storage areas, work areas, and the like.

Exceptions:

1.) Receptacles that are not readily accessible such as a ceiling mounted receptacle for a garage door opener.

2.) A single receptacle supplied by a dedicated branch circuit that is located and identified for a specific use by a cord-and-plug-connected appliance such as a refrigerator, freezer or sump pump.

3.) A receptacle supplying only a permanently installed fire alarm or burglar alarm system.

-Allows for receptacles in garages that are dedicated for specific appliances to not be protected from ground-fault.

IBC Jurisdiction	Code Section	Intent/Rational	Proposed Language
Lee's Summit	405.1 Underground Buildings	incorporate local subterranean space code	Add the following language: Exception 7. Structures as defined in the LSCO Chapter 7, Subterranean Space Building and Fire Code.
Lee's Summit	423.4 Storm Shelters	cost control on small group E projects	Add the following language: Exception 4. Group E occupancies that undergo alterations or additions where the cost of compliance with ICC 500 Section 702 is greater than 20% of the total project cost may omit the requirements of ICC 500 Section 702 only.
Lee's Summit	502.1 Address Identification	identify tenant spaces at other than main entrances	Add the following language: In multi-tenant commercial buildings where tenants have multiple entrances located on different sides of the building, each door shall be addressed. Address characters shall be capable of being illuminated by an internal or external lighting source.
Lee's Summit	Chapter 9 match IFC (Eden)	Chapter 9 IBC same as Chapter 9 IFC	Make same changes as per Assistant Chief Eden
Lee's Summit	1015.2 Guards	guards on high-side of retaining walls when needed	Add the following language: Guards are required at retaining walls over 30" above grade when walking surfaces are within (10) feet of the high side of the retaining wall.
Lee's Summit	1010.1.9.4 Locks & Latches	consistent with IFC	Make same changes as per Assistant Chief Eden
Lee's Summit	Chapter 13 Energy Efficiency	use local energy efficiency requirements	Deleted Chapter 13 Energy Efficiency
Lee's Summit	Table 1505.1 Roof Covering	class "C" minimum rating required	Delete Table 1505.1 footnotes A,B,C
Lee's Summit	1505.5 Nonclassified Roofing	class "C" minimum rating required	Insert the following language: Non-classified roofing shall not be installed unless utilized for the repair of ten (10) percent or less of the total roof covering in any three-year period.
Lee's Summit	1511.1 Reroofing	allow minor repair of NR roofs	Add the following language: Re-roofing includes any repairs of more than 10% or less of the total roof covering in any three year period. A repair of 10% or less of the total roof covering in any three year period may utilize approved roofing materials comparable to the existing roofing materials.

Lee's Summit	1804.4.1 Site Grading	incorporate local storm water drainage requirements	<p>Minimum Standards A. All drainage facilities shall be designed to carry waters to the nearest drainage way, storm sewer conveyance, or other approved poi not collection and conveyance. Erosion of ground in the area of discharge shall be prevented by installation of erosive control devices. Unless specified drainage ways and swales are specifically approved by the building official, abutting property lines between structures shall be designed to function as drainage ways. The toe of slopes shall set back from the property line a minimum of one foot. The area surrounding the building foundation shall have a drainage gradient as provided for in the International Building Code, as amended from time to time with draining gradient thereafter of not less than two percent toward approved drainage facilities unless waived by the building official.</p> <p>B. Prohibited conduct: No person shall allow or cause any:</p> <p>(1) Obstruction to be created, installed or maintained within any drainage way, detention facility, or engineered swale which will create ponding on adjacent property, divert water onto the adjoining property, or impede drainage. Fences may be erected in such areas provided they do not unnecessarily restrict the flow of water.</p> <p>(2) water form intermittent sources such as discharges from sump pumps, downspouts, foundation drains, swimming pools, swimming pool backwashes, or other similar sources excluding lawn sprinklers to be discharged closer than five feet from any adjoining property line.</p> <p>C Enforcement: Where such conditions exist and the code official has given written notice of the violation, the owner of the property shall take appropriate measures to eliminate the problems caused on the adjacent property, within the time period stated on the notice, and failure to do so shall be a violation of this chapter.</p>
Lee's Summit	1805.4.1 Subsoil Drainage System	incorporate local storm water drainage requirements	<p>Where foundations retain earth and enclose habitable or usable space located below grade, drains shall be provided below the floor slab. Drainage tiles, perforated pipe or other approved systems or materials shall be installed at or below the area(s) to be protected; shall be placed with positive or neutral slope to minimize the accumulation of deposits in the drainage system; and shall discharge by gravity or mechanical means to an approved storm water drainage system. The under-slab drainage system shall be installed around the inner perimeter of the area(s) to be protected, or, in a manner that will provide adequate drainage for all area(s) to be protected and is approved by the building official. Interior underslab drains installed on uncompacted fill material shall be supported by mechanical means which are adequately tied into the concrete slab to ensure proper drainage throughout the underslab drain(s).</p>
Lee's Summit	3109 Swimming Pools/Spas/Hot Tubs	International Swimming Pool/Spa Code not proposed to be adopted	Section 3109 will be deleted.

IPC	Jurisdiction	Code Section	Intent/Rational	Proposed Language
Lee's Summit Lee's Summit	Lee's Summit Lee's Summit	305.4.1 Sewer depth 312.10 Inspection & testing of backflow prevention assemblies	establish minimum depth per LSWD policies	Insert the following language: 12 inches Substitute the following language: : Inspection and testing of backflow prevention assemblies shall be in accordance with the policies prescribed by the Water Utilities Department of the City of Lee's Summit, MO.
Lee's Summit	Lee's Summit	Table 403.1 Minimum number of required plumbing fixtures	interior finishes may be such that SS is not needed	Add footnote g to table 403.1: Footnote g – A service sink may not be required, at the discretion of the building official, if deemed unnecessary due to the size, type and finish of the space.
Lee's Summit Lee's Summit	Lee's Summit Lee's Summit	403.4.1 Directional signage 410.4 Substitution	input in 12 was this was over kill/NC in 18 allows flexibility	Delete Section 403.4.1 Insert the following language: In other occupancies, where drinking fountains are required, water coolers, bottled water dispensers or break rooms with a kitchen sink shall be permitted to be substituted for the required drinking fountains.
Lee's Summit	Lee's Summit	607.2 Hot or tempered water supply to fixtures	thought to be to restrictive	Insert the following language: The developed length of hot or tempered water piping, from the source of hot water to the fixtures that require hot or tempered water, shall not exceed 100 feet (30,480mm).
Lee's Summit	Lee's Summit	608.15.2 Protection of backflow preventers	no exception for lawn irrigation	Insert the following language: Exception: In-ground back-flow devices for lawn irrigation systems
Lee's Summit Lee's Summit Lee's Summit	Lee's Summit Lee's Summit Lee's Summit	714.1 Backwater valves 903.1 Roof extension 918.1 Air admittance valves	historically not required establish minimum height minimize the use of AAV	Delete Section 714.1 Insert the following language: 6 inches Substitute the following language: Air admittance valve are only allowed when approved by the Administrative Authority. Vent systems utilizing air admittance valves shall comply with this section. Stack-type air admittance valves shall conform to ASSE 1050. Individual-and branch-type air admittance valves shall conform to ASSE 1051.

Lee's Summit 1002.4 Trap seals

allows flexibility

Substitute the following language: Each fixture trap shall have a liquid seal of not less than two (2) inches (51 mm) and not more than four (4) inches (102 mm), or deeper for special designs relating to accessible fixtures. Where a trap seal is subject to loss by evaporation, a deep-seal trap consisting of a four-inch (102 mm) seal or a trap seal primer valve shall be installed. A trap seal primer valve shall conform to ASSE 1018 or ASSE 1044.

Lee's Summit 1101.3 Prohibited drainage

Incorporate local requirements

Insert the following language: Sanitary sewer systems shall be designed, built and maintained in such a manner to prevent all storm or ground water from draining, discharging or entering into the sanitary sewer system. Connection of sump pumps, foundation drains, yard drains, gutter downspouts and any other storm water drainage receptacle(s) or system(s) are specifically prohibited from being connected to the sanitary sewer system.

Lee's Summit 1113.1.1 Pump capacity and head

exposed drains need back-up power

Insert the following language: Sumps receiving storm water from any exposed exterior drain(s) or opening(s) shall be provided with back-up system(s) capable of assuring proper sump operation in case of power failure.

IMC

Jurisdiction
Lee's Summit

Code Section
401.2 Ventilation required

Intent/Rational
IECC not proposed to be adopted

Proposed Language

Substitute the following language: Every occupancy space shall be ventilated by natural means in accordance with Section 402 or by mechanical means in accordance with Section 403.

NEC	Jurisdiction	Code Section	Intent/Rational	Proposed Language
Lee's Summit	Lee's Summit	2017 NEC 230.70(A)(1) Readily accessible location	allows flexibility, consistent with IRC	<p>Section 230.70(A)(1) is hereby amended to read as follows: The service disconnecting means shall be installed at a readily accessible location either outside of a building or inside nearest the point of entrance of the service conductors. When service entrance conductors are more than ten (10) feet in length from the point of entry to the service panel, a separate means of disconnect must be installed at the service cable entrance to the building or structure.</p>
Lee's Summit	Lee's Summit	210.52(C)(5) Receptacle outlet locations	consistent with the IRC	<p>Section 210.52(C)(5) is hereby amended to read as follows: Receptacle outlets shall be located not more than 20 inches (508 mm) above the countertop or work surface. Receptacle outlet assemblies installed in countertops and work surfaces shall be listed for use in countertops or work surfaces. Receptacle outlets rendered not readily accessible by appliances fastened in place, appliance garages, sinks or rangetops as covered in 210.52(C)(1), Exception, or appliances occupying dedicated space shall not be considered as these required outlets.</p> <p>EXCEPTION: Receptacle outlets shall be permitted to be mounted not more than 12 inches (305 mm) below the countertop or work surface in construction designed for the physically impaired or for island and peninsular countertops or work surface where the surface is flat across its entire surface and the are no means to mount a receptacle within 20 inches (508 mm) above the countertop, such as in an overhead cabinet. Receptacles mounted below the countertop or work surface in accordance with this section shall not be located where the countertop or work surface extends more than 6 inches (152 mm) beyond its support base.</p>
Lee's Summit	Lee's Summit	210.8(A)(2) Dwelling unit garages	consistent with the IRC	<p>Section 210.8(A)(2) is hereby amended to read as follows: Garage and accessory building receptacles is hereby amended to read as follows: All 125-volt, single-phase, 15- and 20- ampere receptacles installed in garages and grade level portions of unfinished accessory buildings used for storage or work areas shall have ground-fault circuit interrupter protection for personnel.</p> <p>EXCEPTIONS:</p>

1.) Receptacles that are not readily accessible such as a ceiling mounted receptacle for a garage door opener.

2.) A single receptacle supplied by a dedicated branch circuit that is located and identified for a specific use by a cord-and-plug-connected appliance such as a refrigerator, freezer or sump pump.

3.) A receptacle supplying only a permanently installed fire alarm or burglar alarm system.

Section 210.8(A)(5) is hereby amended to read as follows:
All 125-volt, single phase, 15- and 20- ampere receptacles installed in unfinished basements shall have ground fault circuit interrupter protection for personnel. For the purposes of this section, unfinished basements are defined as portions or areas of the basement not intended as habitable rooms and limited to storage areas, work areas, and the like.

Exceptions:

1.) Receptacles that are not readily accessible such as a ceiling mounted receptacle for a garage door opener.

2.) A single receptacle supplied by a dedicated branch circuit that is located and identified for a specific use by a cord-and-plug-connected appliance such as a refrigerator, freezer or sump pump.

3.) A receptacle supplying only a permanently installed fire alarm or burglar alarm system.

Lee's Summit 210.8(A)(5) Dwelling units unfinished basement consistent with the IRC

IFGC	Jurisdiction	Code Section	Intent/Rational	Proposed Language
	Lee's Summit	403.4.3 Copper & copper alloy	Spire NG not compatible	Delete the entire section
	Lee's Summit	403.4.4 Aluminum	Spire NG not compatible	Delete the entire section
	Lee's Summit	4.3.5.1 Steel tubing	Spire NG not compatible	Delete the entire section
	Lee's Summit	403.5.2 Stainless steel	Spire NG not compatible	Delete the entire section
	Lee's Summit	403.5.3 Copper & copper alloy tubing	Spire NG not compatible	Delete the entire section
	Lee's Summit	403.5.4 Aluminum tubing	Same as International Residential Code (IRC)	
	Lee's Summit	406.4.1		

Section 406.4.1 is hereby amended to read as follows:
The test pressure to be used shall be not less than one and one-half times the proposed maximum working pressure, but not less than ten (10) psig (68.9 kPa) irrespective of design pressure. For welded piping, and for piping carrying gas at pressures in excess of fourteen (14) inches water column pressure, the test pressure shall not be less than sixty (60) psig. Where the test pressure exceeds one hundred twenty-five (125) psig (862 kPa), the test pressure shall not exceed a value that produces a hoop stress in the piping greater than fifty (50) percent of the specified minimum yield strength of the pipe.

Proposed Significant Changes from the 2012 International Residential Code to the 2018

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

Ice Barrier Underlayment Required. Yes

Change:

This section now requires two layers of roofing underlayment or a self-adhering polymer-modified bitumen sheet to be installed at the lowest edges of roof surfaces to extend to not less than 24 inches inside the exterior wall line. The added layers of protection prevent water damage to dwellings that are created from ice forming at the lowest point and thawing.

Section 507 Decks.

Change:

The IRC in previous adopted additions has not given prescriptive requirements for deck construction. The 2018 code now has a section for minimum deck design and construction.

Section E3901.9 Basements, garages and accessory buildings.

Change:

Requires receptacles to be installed in each bay of a garage.

E3902.16 Arc-fault circuit-interrupter protection.

Change:

This will require Arc-fault circuit-interrupter protection for all 120 volt 15 and 20 amp outlets in a house. This has previously been amended to only require arc-fault protection in bedrooms.

Section E4002.14 Tamper-resistant receptacles.

Change:

This will require all accessible 15 – 20 amp receptacles to be tamper resistant.