BILL NO. 2025-37

ORDINANCE NO. 2025-37

AN ORDINANCE OF THE CITY OF FLINT HILL, MISSOURI, ADOPTING, WITH AMENDMENTS AND MODIFICATIONS OF RELEVANT STANDARDIZED BUILDING CODES, AND REPEALING ORDINANCE 2018-11.

WHEREAS, pursuant to Section 67.280.2, RSMo., the City of Flint Hill, Missouri (the "City") "may adopt or repeal an ordinance which incorporates by reference the provisions of any code or portions of any code, or any amendment thereof, properly identified as to date and source, without setting forth the provisions of such code in full;" and

WHEREAS, a copy of each of the 2021 International Building Code, the 2021 International Residential Code, the 2021 International Existing Building Code, the 2021 International Mechanical Code, the 2021 International Fuel Gas Code, the 2020 NFPA 70 National Electrical Code, the 2021 International Plumbing Code, the 2021 International Private Sewage Disposal Code, the 2021 International Energy Conservation Code, the 2021 International Fire Code, the 2021 International Swimming Pool and Spa Code, and the 2021 International Property Maintenance Code (collectively, the "Building Codes"), was filed in the office of the City Clerk on November 1, 2025, and was available for public use, inspection, and examination for a period of ninety days prior to the adoption of this Ordinance, as required by Section 67.280.2, RSMo.; and

WHEREAS, the Board of Aldermen of the City ("Board") desires to support and encourage uniformity in building regulations within the City; and

WHEREAS, the Board deems it to be in the best interest of the City and its residents, and to the benefit of the health, safety and general welfare of its residents, that it adopt the above-referenced Building Codes as amended herein; and

WHEREAS, most municipalities in St. Charles County have studied and are moving towards the adoption of modified provisions of these codes so that the building and trade industry finds consistency amongst the jurisdictions and Board finds and determines such consistency among jurisdictions is in the best interests of the City and its citizens.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF FLINT HILL, MISSOURI, AS FOLLOWS:

SECTION 1. Building Codes Repealed: Ordinance 2018-11 is hereby repealed in its entirety and replaced by this Ordinance.

SECTION 2. The following codes are hereby adopted by reference with one (1) copy having been placed on file, beginning November 1, 2025, in the Office of the City Clerk and for a period of ninety (90) days prior to the adoption of this Ordinance, pursuant to Section 67.280, RSMo., said copies being marked and designated as the:

Section 5 of this Ordinance: 2021 International Building Code, with Appendices C, E, F, G, I, J and K, pp. 4-9, herein.

Section 6 of this Ordinance: 2021 International Residential Code, with Appendices A, B, C, E, F, G, H, J, M, N and P, pp. 10-43, herein.

Section 7 of this Ordinance: 2021 International Existing Building Code, pp. 44-47, herein.

Section 8 of this Ordinance: 2021 International Mechanical Code, pp. 48-50, herein.

Section 9 of this Ordinance: 2021 International Fuel Gas Code, pp. 51-53, herein.

Section 10 of this Ordinance: 2020 NFPA 70 National Electrical Code, pp. 54-59, herein.

Section 11 of this Ordinance: 2021 International Plumbing Code, pp. 60-62, herein.

Section 12 of this Ordinance: 2021 International Private Sewage Disposal Code, pp. 63-72, herein.

Section 13 of this Ordinance: 2021 International Energy Conservation Code, pp. 73-77, herein.

Section 14 of this Ordinance: 2021 International Fire Code, pp. 78-80, herein.

Section 15 of this Ordinance: 2021 International Swimming Pool and Spa Code, pp. 81-83, herein.

Section 16 of this Ordinance: 2021 International Property Maintenance Code, pp. 84-114, herein.

Said codes are hereby referred to, adopted, and made part hereof, as if fully set out in this Ordinance, with the additions, insertions, deletions, and changes as set forth in this Ordinance.

SECTION 3. DEFINITIONS THROUGHOUT THE ADOPTED CODES: Whenever the term "*Name of Jurisdiction"* appears, it shall mean the "City of Flint Hill, Missouri." Whenever the term "*Building Official"* or "*Code Official*" appears, it shall mean the Building Inspector of the City of Flint Hill, Missouri or his/her duly authorized representative, except in adoption of the 2021 International Property Maintenance Code wherein St. Charles County, Missouri, agents and officers are, under agreement with the City, the responsible enforcement persons.

SECTION 4. Rules of Interpretation.

1. Where changes are made to a section of the adopted Code, other than as noted in Section 3 of this Ordinance, this Ordinance duplicates the Section number used in the adopted Code.

2. Where a section is deleted in its entirety, the deletion is referenced with the word DELETED; sections added are numbered consistent with the code's format.

SECTION 5. 2021 INTERNATIONAL BUILDING CODE, WITH APPENDICES C, E, F, G, I, J, and K.

The City hereby adopts by this reference the 2021 International Building Code, including Appendices C, E, F, G, I J, and K with the following amendments by additions, insertions, deletions and changes to read as follows:

(CHAPTER 1 SCOPE AND ADMINISTRATION)

(SECTION 101 SCOPE AND GENERAL REQUIREMENTS)

101.1 Title. These regulations shall be known as the Building Code of the City of Flint Hill, Missouri, hereinafter referred to as "this code."

(SECTION 103 CODE COMPLIANCE AGENCY)

103.1 Creation of enforcement agency. The City Building Department is hereby created, and the official in charge thereof shall be known as the Building Inspector. The function of the position shall be the implementation, administration and enforcement of the provisions of this code.

103.2 Appointment. The Building Inspector is appointed as provided by ordinance.

(SECTION 105 PERMITS)

105.2 Work exempt from permits. Exemptions from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. Permits shall not be required for the following:

Building:

1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided that the floor area is not greater than 120 square feet.

2. Fences not over 4 feet (1219 mm) high.

3. Retaining walls that are not over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or impounding Class I, II or IIIA liquids.

4. Water tanks supported directly on grade if the capacity is not greater than 5,000 gallons (18,925 L) and the ratio of height to diameter or width is not greater than 2:1.

5. Sidewalks and driveways not more than 30 inches (762 mm) above grade and not over any basement or story below and that are not part of an accessible route.

6. Painting, papering, tiling, carpeting, cabinets, counter tops, and similar finish work.

7. Temporary motion picture, television, and theater stage sets and scenery.

8. Prefabricated swimming pools accessory to a Group R-3 occupancy that are less than 24 inches (610 mm) deep, are not greater than 5,000 gallons (18,925 L) and are installed entirely above ground.

9. Shade cloth structures constructed for nursery or agricultural purposes, and not including service systems.

10. Swings and other playground equipment accessory to detached one and two-family dwellings.

11. Window awnings in Group R-3 and U occupancies supported by an exterior wall that do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support.

12. Nonfixed and movable cases, counters, and partitions not over 5 feet 9 inches (1753 mm) in height.

13. Flag poles less than 40 feet in height.

Electrical:

Repairs and maintenance: Minor repair work, including the replacement of lamps or the connection of approved portable electrical equipment to approved permanently installed receptacles.

Radio and television transmitting stations: The provisions of this code shall not apply to electrical equipment used for radio and television transmissions, but do apply to equipment and wiring for power supply, the installations of towers, and antennas.

Temporary testing systems: A permit shall not be required for the installation of any temporary system required for the testing or servicing of electrical equipment or apparatus.

Gas:

1. Portable heating appliance.

2. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.

Mechanical:

1. Portable heating appliance.

2. Portable ventilation equipment.

3. Portable cooling unit.

4. Steam, hot, or chilled water piping within any heating or cooling equipment regulated by this code.

5. Replacement of any part that does not alter its approval or make it unsafe.

6. Portable evaporative cooler.

7. Self-contained refrigeration system containing 10 pounds (4.54 kg) or less of refrigerant and actuated by motors of 1 horsepower (746 W) or less.

Plumbing:

1. The stopping of leaks in drains, water, soil, waste, or vent pipe; provided, however, that if any concealed trap, drainpipe, water, soil, waste, or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered as new work, and a permit shall be obtained and inspection made as provided in this code.

2. The clearing of stoppages or the repairing of leaks in pipes, valves, or fixtures, and the removal and reinstallation of water closets, provided such repairs do not involve or require the replacement or rearrangement of valves, pipes, or fixtures.

3. Fixture replacement with similar fixtures where plumbing connections are not relocated, and new fittings and valves are not installed.

105.5.1 Reinstatement. A permit that has expired may be renewed where approved by the Building Inspector. The request for reinstatement shall be in writing and justifiable caused demonstrated.

(SECTION 107 CONSTRUCTION DOCUMENTS)

107.1 General. Submittal documents consisting of construction documents, statement of special inspections, geotechnical report and other data shall be submitted as required by the Building Inspector, with each permit application. The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist, the Building Inspector is authorized to require additional construction documents to be prepared by a registered design professional.

Exception: The Building Inspector is authorized to waive the submission of construction documents and other data not required to be prepared by a registered design professional if it is found that the nature of the work applied for is such that review of construction documents is not necessary to obtain compliance with this code.

107.1.2 Electronic submission. Where design documents including, but not limited to, plot plans, site plans, design drawings, specifications, etc., are originally created electronically, the Building Inspector is authorized to require electronic submittal of documents in a portable document format (PDF) or similar format for review. Where design documents were originally prepared on paper and are submitted in a paper form, the Building Inspector is authorized to charge a fee for converting those drawings to PDF equal to the cost incurred by City recreating the document and not to exceed more than one (1) dollar per page.

Exception: Where submittal documents were originally prepared by hand and are 11 inches by 17 inches or less, the fee for document conversion shall not be charged.

(SECTION 113 MEANS OF APPEALS)

113.1 General. In order to hear and decide appeals of orders, decisions or determinations made by the Building Inspector relative to the application and interpretation of this code, the Board of Adjustment shall serve as a board of appeals. .

113.3 Qualifications. DELETED.

113.5 Application for appeal. Any person shall have the right to appeal a decision of the Building Inspector to the Board of Adjustment. An application for appeal shall be based on a claim that the intent of this code or the rules legally adopted hereunder have been incorrectly interpreted, the provisions of this code do not fully apply, or an equally good or better form of construction is proposed. The application shall be filed on a form obtained from the City Clerk within 20 days after the date of the order or denial of the Building Inspector. The application fee for an appeal is provided for in Article 31 Fee Schedule of the City Zoning Code.

(SECTION 114 VIOLATIONS)

114.4 Violation penalties. Any person who violates a provision of this code or fails to comply with any of the requirements thereof or who repairs or alters or changes the occupancy of a building or structure in violation of the approved construction documents or directive of the Building Inspector, or of a permit or certificate issued under the provisions of this code, shall be guilty of a misdemeanor and upon conviction thereof shall be punishable by a fine of not more than five hundred ($500.00) dollars, and each day's continuance of a violation shall be deemed a separate offense.

(SECTION 115 STOP WORK ORDER)

115.2 Issuance. The stop work order shall be in writing and shall be given to the owner of the property involved, the owner's authorized agent or the person performing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order and the conditions under which the cited work will be authorized to resume. Any person served with a stop work order shall pay an administrative penalty of up to two hundred fifty dollars ($250.00).

(SECTION 116 UNSAFE STRUCTURES AND EQUIPMENT)

116.1 Unsafe conditions. Structures or existing equipment that are or hereafter become unsafe, insanitary or deficient because of inadequate means of egress facilities, inadequate light and ventilation, or that constitute a fire hazard, or are otherwise dangerous to human life or the public welfare, or that involve illegal or improper occupancy or inadequate maintenance, shall be deemed an unsafe condition. Unsafe structures shall be taken down and removed or made safe, as the Building Inspector deems necessary and as provided for in this section. A vacant structure that is not secured against unauthorized entry shall be deemed unsafe.

116.2 Record. The Building Inspector shall cause a report to be filed on an unsafe condition. The report shall state the occupancy of the structure and the nature of the unsafe condition.

116.4 Method of service. Such notice shall be deemed properly served where a copy thereof is served in accordance with one of the following methods:

1. A copy is delivered to the owner personally.

2. A copy is sent by certified or registered mail addressed to the owner at the last known address with the return receipt requested.

3. A copy is delivered in any other manner as prescribed by local law.

If the certified or registered letter is returned showing that the letter was not delivered, a copy thereof shall be posted in a conspicuous place in or about the structure affected by such notice. Service of such notice in the foregoing manner on the owner's authorized agent shall constitute service of notice on the owner.

(CHAPTER 2 DEFINITIONS)
(SECTION 202 DEFINITIONS)

FLAMMABLE GAS. A material that is a gas at 68°F (20°C) or less at 14.7 pounds per square inch atmosphere (psia) (101 kPa) of pressure [a material that has a *boiling point* of 68°F (20°C) or less at 14.7 psia (101 kPa)], which also meets one of the following subdivided as follows:

1. Category 1A. A gas that meets either of the following:

1.1 Ignitable at 14.7 psia (101 kPa) when in a mixture of 13 percent or less by volume with air.

1.2 A flammable range at 14.7 psia (101 kPa) with air of at least 12 percent, regardless of the lower limit, unless data shows compliance with Category 1B.

2. Category 1B. A gas that meets the flammability criteria for Category 1A, is not pyrophoric or chemically unstable, and meets one or more of the following:

2.1 A lower flammability limit of more than 6 percent by volume of air.

2.2 A fundamental burning velocity of less than 3.9 inches/second (99 mm/s).

The limits specified shall be determined at 14.7 psi (101 kPa) of pressure and a temperature of 68°F (20°C) in accordance with ASTM E681.

Where not otherwise specified, the term "flammable gas" include both Category 1A and 1B.

(CHAPTER 3 OCCUPANCY CLASSIFICATION AND USE)

(SECTION 305 EDUCATIONAL GROUP E)

305.2.3 Eight or fewer children in a dwelling unit. A facility such as the above within a dwelling unit and having eight or fewer children receiving such day care shall be classified as a Group R-3 occupancy or shall comply with the International Residential Code.

(SECTION 307 HIGH-HAZARD GROUP H)
TABLE 307.1(1)
MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA OF HAZARDOUS MATERIALS POSING A PHYSICAL HAZARD[a, j, m, n, p]

MATERIAL	CLASS	GROUP WHEN THE MAXIMUM ALLOWABLE QUANTITY IS EXCEEDED	STORAGE[b]			USE-CLOSED SYSTEMS[b]			USE-OPEN SYSTEMS[b]	
			Solid pounds(cubic feet)	Liquid gallons (pounds)	Gas (cubic feet at NTP)	Solid pounds(cubic feet)	Liquid gallons (pounds)	Gas (cubic feet at NTP)	Solid pounds(cubic feet)	Liquid gallons (pounds)
Combustible dust	NA	H-2	SeeNote q	NA	NA	See Note q	NA	NA	See Note q	NA
Combustible fiber[q]	Loose	H-3	(100)	NA	NA	(100)	NA	NA	(20)	NA
	Baled[o]		(1,000)			(1,000)			(200)	
Combustible liquid[c, i]	II	H-2 or H-3	NA	120d, e	NA	NA	120[d]	NA	NA	30[d]
	IIIA	H-2 or H-3		330d, e			330[d]			80[d]
	IIIB	NA		13,200[e, f]			13,200[f]			3,300[f]
Cryogenic flammable	NA	H-2	NA	45[d]	NA	NA	45[d]	NA	NA	10[d]
Cryogenic inert	NA	NA	NA	NA	NL	NA	NA	NL	NA	NA
Cryogenic oxidizing	NA	H-3	NA	45[d]	NA	NA	45[d]	NA	NA	10[d]
Explosives	Division 1.1	H-1	1e, g	(1)e, g	NA	0.25[g]	(0.25)[g]	NA	0.25[g]	(0.25)[g]
	Division 1.2	H-1	1e, g	(1)e, g		0.25[g]	(0.25)[g]		0.25[g]	(0.25)[g]
	Division 1.3	H-1 or H-2	5e, g	(5)e, g		1g	(1)[g]		1g	(1)[g]
	Division 1.4	H-3	50e, g	(50)[e, g]		50[g]	(50)[g]		NA	NA
	Division 1.4G	H-3	125e, l	NA		NA	NA		NA	NA
	Division 1.5	H-1	1e, g	(1)e, g		0.25[g]	(0.25)[g]		0.25[g]	(0.25)[g]
	Division 1.6	H-1	1e, g	NA		NA	NA		NA	NA
Gaseous										
Flammable gas	1A and 1B (High BV)[r]	H-2	NA	NA	1,000[d,e]	NA	NA	1,000[d,e]	NA	NA

	1B (Low BV) [r]				162,000[d,e]			162,000[d,e]		
	Liquefied				NA			NA		
	1A and 1B (High BV) [r]			(150)[d,e]			(150)[d,e]			
	1B (Low BV) [r]			(10,000)[d,e]			(10,000)[d,e]			
Flammable liquid[c]	IA	H-2 or H-3	NA	30d, e	NA	NA	30[d]	NA	NA	10[d]
	IB and IC			120d, e			120[d]			30[d]
Flammable liquid, combinatio n (IA, IB, IC)	NA	H-2 or H-3	NA	120d, e, h	NA	NA	120d, h	NA	NA	30d, h
Flammable solid	NA	H-3	125d, e	NA	NA	125[d]	NA	NA	25[d]	NA
Inert gas	Gaseous	NA	NA	NA	NL	NA	NA	NL	NA	NA
	Liquefied	NA	NA	NA	NL	NA	NA	NL	NA	NA
	UD	H-1	1e, g	(1)e, g	NA	0.25[g]	(0.25)[g]	NA	0.25[g]	(0.25)[g]
	I	H-2	5d, e	(5)d, e		1d	(1)[d]		1d	(1)[d]
Organic peroxide	II	H-3	50d, e	(50)[d, e]		50[d]	(50)[d]		10[d]	(10)[d]
	III	H-3	125d, e	(125)[d, e]		125[d]	(125)[d]		25[d]	(25)[d]
	IV	NA	NL	NL		NL	NL		NL	NL
	V	NA	NL	NL		NL	NL		NL	NL
Oxidizer	4	H-1	1g	(1)e, g	NA	0.25[g]	(0.25)[g]	NA	0.25[g]	(0.25)[g]
	3k	H-2 or H-3	10d, e	(10)[d, e]		2d	(2)[d]		2d	(2)[d]
	2	H-3	250d, e	(250)[d, e]		250[d]	(250)[d]		50[d]	(50)[d]
	1	NA	4,000[e, f]	(4,000)[e, f]		4,000[f]	(4,000)[f]		1,000[f]	(1,000)[f]
Oxidizing gas	Gaseous	H-3	NA	NA	1,500[d,e]	NA	NA	1,500[d,e]	NA	NA
	Liquefied			(150)[d, e]	NA		(150)[d,e]	NA		
Pyrophoric	NA	H-2	4e, g	(4)e, g	50e, g	1g	(1)[g]	10e, g	0	0
	4	H-1	1e, g	(1)e, g	10e, g	0.25[g]	(0.25)[g]	2e, g	0.25[g]	(0.25)[g]
Unstable (reactive)	3	H-1 or H-2	5d, e	(5)d, e	50d, e	1d	(1)[d]	10d, e	1d	(1)[d]
	2	H-3	50d, e	(50)[d, e]	750d, e	50[d]	(50)[d]	750d, e	10[d]	(10)[d]
	1	NA	NL	NL	NL	NL	NL	NL	NL	NL
	3	H-2	5d, e	(5)d, e	NA	5d	(5)[d]	NA	1d	(1)[d]
Water reactive	2	H-3	50d, e	(50)[d, e]		50[d]	(50)[d]		10[d]	(10)[d]
	1	NA	NL	NL		NL	NL		NL	NL

For SI: 1 cubic foot = 0.028 m3, 1 pound = 0.454 kg, 1 gallon = 3.785 L.
NL = Not Limited; NA = Not Applicable; UD = Unclassified Detonable.
a. For use of control areas, see Section 414.2.
b. The aggregate quantity in use and storage shall not exceed the quantity specified for storage.
c. The quantities of alcoholic beverages in retail and wholesale sales occupancies shall not be limited provided the liquids are packaged in individual containers not exceeding 1.3 gallons. In retail and wholesale sales occupancies, the quantities of medicines, foodstuffs or consumer products, and cosmetics containing not more than 50 percent by volume of water-miscible liquids with the

remainder of the solutions not being flammable, shall not be limited, provided that such materials are packaged in individual containers not exceeding 1.3 gallons.
d. Maximum allowable quantities shall be increased 100 percent in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1. Where Note e also applies, the increase for both notes shall be applied accumulatively.
e. Maximum allowable quantities shall be increased 100 percent when stored in approved storage cabinets, day boxes, gas cabinets, gas rooms or exhausted enclosures or in listed safety cans in accordance with Section 5003.9.10 of the *International Fire Code*. Where Note d also applies, the increase for both notes shall be applied accumulatively.
f. Quantities shall not be limited in a building equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
g. Allowed only in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
h. Containing not more than the maximum allowable quantity per control area of Class IA, IB or IC flammable liquids.
i. The maximum allowable quantity shall not apply to fuel oil storage complying with Section 605.4.2 of the *International Fire Code*.
j. Quantities in parentheses indicate quantity units in parentheses at the head of each column.
k. A maximum quantity of 220 pounds of solid or 22 gallons of liquid Class 3 oxidizers is allowed when such materials are necessary for maintenance purposes, operation or sanitation of equipment when the storage containers and the manner of storage are approved.
l. Net weight of the pyrotechnic composition of the fireworks. Where the net weight of the pyrotechnic composition of the fireworks is not known, 25 percent of the gross weight of the fireworks, including packaging, shall be used.
m. For gallons of liquids, divide the amount in pounds by 10 in accordance with Section 5003.1.2 of the *International Fire Code*.
n. For storage and display quantities in Group M and storage quantities in Group S occupancies complying with Section 414.2.5, see Tables 414.2.5(1) and 414.2.5(2).
o. Densely packed baled cotton that complies with the packing requirements of ISO 8115 shall not be included in this material class.
p. The following shall not be included in determining the maximum allowable quantities:
   1. Liquid or gaseous fuel in fuel tanks on vehicles.
   2. Liquid or gaseous fuel in fuel tanks on motorized equipment operated in accordance with the *International Fire Code*.
   3. Gaseous fuels in piping systems and fixed appliances regulated by the *International Fuel Gas Code*.
   4. Liquid fuels in piping systems and fixed appliances regulated by the *International Mechanical Code*.
   5. Alcohol-based hand rubs classified as Class I or II liquids in dispensers that are installed in accordance with Sections 5705.5 and 5705.5.1 of the *International Fire Code*. The location of the alcohol-based hand rub (ABHR) dispensers shall be provided in the construction documents.
q. Where manufactured, generated or used in such a manner that the concentration and conditions create a fire or explosion hazard based on information prepared in accordance with Section 414.1.3.
r. “High BV” Category 1B flammable gas has a burning velocity greater than 3.9 inches per second (10 cm/s). "Low BV" Category 1B flammable gas has a burning velocity of 3.9 inches per second (10 cm/s) or less.

307.4 High-hazard Group H-2. Buildings and structures containing materials that pose a deflagration hazard or a hazard from accelerated burning shall be classified as Group H-2. Such materials shall include, but not be limited to, the following:

Class I, II or IIIA flammable or combustible liquids that are used or stored in normally open containers or systems, or in closed containers or systems pressurized at more than 15 pounds per square inch gauge (103.4 kPa).

Combustible dusts where manufactured, generated or used in such a manner that the concentration and conditions create a fire or explosion hazard based on information prepared in accordance with Section 414.1.3.
Cryogenic fluids, flammable.
Category 1A Flammable gases.
Category 1B Flammable gases having a burning velocity greater than 3.9 inches per second (10 cm/s)
Organic peroxides, Class I.

Oxidizers, Class 3, that are used or stored in normally open containers or systems, or in closed containers or systems pressurized at more than 15 pounds per square inch gauge (103 kPa).

Pyrophoricliquids, solids and gases, nondetonable.
Unstable (reactive) materials, Class 3, nondetonable.
Water-reactive materials, Class 3.

307.5 High-hazard Group H-3. Buildings and structures containing materials that readily support combustion or that pose a physical hazard shall be classified as Group H-3. Such materials shall include, but not be limited to, the following:

Class I, II or IIIA flammable or combustible liquids that are used or stored in normally closed containers or systems pressurized at 15 pounds per square inch gauge (103.4 kPa) or less Combustible fibers, other than densely packed baled cotton, where manufactured, generated or used in such a manner that the concentration and conditions
create a fire or explosion hazard based on information prepared in accordance with Section 414.1.3
Consumer fireworks, 1.4G (Class C, Common)
Cryogenic fluids, oxidizing
Category 1B Flammable gases having a burning
velocity of 3.9 inches per second (10 cm/s) or less
Flammable solids
Organic peroxides, Class II and III
Oxidizers, Class 2
Oxidizers, Class 3, that are used or stored in
normally closed containers or systems pressurized at
15 pounds per square inch gauge (103 kPa) or less
Oxidizing gases
Unstable (reactive) materials, Class 2
Water-reactive materials, Class 2

(SECTION 308 INSTITUTIONAL GROUP I)

308.2.3 Nine to 16 persons receiving custodial care. A facility housing not fewer than nine and not more than 16 persons receiving *custodial care* shall be classified as Group R-4.

308.2.4 Eight or fewer persons receiving custodial care. A facility with eight or fewer persons receiving custodial care shall be classified as Group R-3 or shall comply with International Residential Code.

308.3.2 Eight or fewer persons receiving medical care. A facility with eight or fewer persons receiving medical care shall be classified as Group R-3 or shall comply with the International Residential Code.

308.5.4 Eight or fewer persons receiving care in a dwelling unit. A facility such as the above within a dwelling unit and having eight or fewer persons receiving custodial care shall be classified as a Group R-3 occupancy or shall comply with the International Residential Code.

(SECTION 310 RESIDENTIAL GROUP R)

310.4.1 Care facilities within a dwelling. Care facilities for eight or fewer persons receiving care that are within a single-family dwelling are permitted to comply with the International Residential Code.

310.4.2 Lodging houses. Owner-occupied lodging houses with five or fewer guest rooms and 10 or fewer total occupants shall be permitted to be constructed in accordance with the International Residential Code.

(CHAPTER 4 SPECIAL DETAILED REQUIREMENTS BASED ON OCCUPANCY AND USE)
(SECTION 414 HAZARDOUS MATERIALS)

414.2.5 Hazardous material in Group M display and storage areas and in Group S storage areas. Hazardous materials located in Group M and Group S occupancies shall be in accordance with Sections 414.2.5.1 through 414.2.5.4.

414.2.5.4 Flammable gas. The aggregate quantity of Category 1B flammable gas having a burning velocity of 3.9 inches per second (10 cm/s) or less stored and displayed within a single control area of a Group M occupancy or stored in a single control area of a Group S occupancy is allowed to exceed the maximum allowable quantities per control area specified in Table 307.1(1) without classifying the building or use as a Group H occupancy, provided that the materials are stored and displayed in accordance with the International Fire Code and quantities do not exceed the amounts specified in Table 414.2.5.4.

TABLE 414.2.5.4 MAXIMUM ALLOWABLE QUANTITY OF LOW BURNING VELOCITY CATEGORY 1B FLAMMABLE GAS IN GROUP M AND S OCCUPANCIES PER CONTROL AREA [a]

CATEGORY 1B (Low BV)[d]	MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA	
	Sprinklered[b]	Nonsprinklered
Gaseous	390,000 cu ft	195,000 cu ft
Liquefied	40,000 lb[c]	20,000 lb

For SI: 1 pound = 0.454 kg, 1 square foot = 0.0929 m2, 1 cubic foot = 0.028 m3, 1 inch per second = 2.54 cm/s.
a. Control areas shall be separated from each other by not less than a 1-hour fire barrier.
b. The building shall be equipped throughout with an approved automatic sprinkler system with a minimum sprinkler design density of Ordinary Hazard Group 2 in the area where flammable gases are stored or displayed.
c. Where storage areas exceed 50,000 square feet in area, the maximum allowable quantities area is allowed to be increased by 2 percent for each 1,000 square feet of area in excess of 50,000 square feet, up to not more than 100 percent of the table amounts.
Separation of control areas is not required. The aggregate amount shall not exceed 80,000 pounds.
d. "Low BV" Category 1B flammable gas has a burning velocity of 3.9 in/s or less.

TABLE 414.5.1
EXPLOSION CONTROL REQUIREMENTS [a, h]

EXPLOSION CONTROL METHODS			
MATERIAL	CLASS	Barricade construction	Explosion (deflagration) venting or explosion (deflagration) prevention systems[b]

HAZARD CATEGORY			
Combustible dusts[c]	—	Not Required	Required
Cryogenic flammables	—	Not Required	Required
	Division 1.1	Required	Not Required
	Division 1.2	Required	Not Required
Explosives	Division 1.3	Not Required	Required
	Division 1.4	Not Required	Required
	Division 1.5	Required	Not Required
	Division 1.6	Required	Not Required
Flammable gas	Gaseous	Not Required	Required[j]
	Liquefied	Not Required	Required[j]
Flammable liquid	IA[d]	Not Required	Required
	IB[e]	Not Required	Required
Organic peroxides	U	Required	Not Permitted
	I	Required	Not Permitted
Oxidizer liquids and solids	4	Required	Not Permitted
Pyrophoric gas	—	Not Required	Required
Unstable (reactive)	4	Required	Not Permitted
	3 Detonable	Required	Not Permitted
	3 Nondetonable	Not Required	Required
Water-reactive liquids and solids	3	Not Required	Required
	2g	Not Required	Required
SPECIAL USES			
Acetylene generator rooms	—	Not Required	Required
Electrochemical energy storage system[i]	—	Not Required	Required
Energy storage system[i]	—	Not Required	Required
Grain processing	—	Not Required	Required
Liquefied petroleum gas-distribution facilities	—	Not Required	Required
Where explosion hazards exist[f]	Detonation	Required	Not Permitted
	Deflagration	Not Required	Required

a. See Section 414.1.3.
b. See the International Fire Code.
c. Combustible dusts where manufactured, generated or used in such a manner that the concentration and conditions create a fire or explosion hazard based on information prepared in accordance with Section 104.8.2 of the International Fire Code. See definition of "Combustible dust" in Chapter 2.
d. Storage or use.
e. In open use or dispensing.

f. Rooms containing dispensing and use of hazardous materials where an explosive environment can occur because of the characteristics or nature of the hazardous materials or as a result of the dispensing or use process.
g. A method of explosion control shall be provided where Class 2 water-reactive materials can form potentially explosive mixtures.
h. Explosion venting is not required for Group H-5 fabrication areas complying with Section 415.11.1 and the International Fire Code.
i. Where explosion control is required in Section 1207 of the International Fire Code.
j. Not required for Category 1B Flammable Gases having a burning velocity not exceeding 3.9 in/s (10 cm.s).

(CHAPTER 16 STRUCTURAL DESIGN)

(SECTION 1612 FLOOD LOADS)

1612.3 Establishment of flood hazard areas. For flood hazard areas, see Ordinance 2021-09 of the City of Flint Hill, Missouri.

SECTION 6. 2021 INTERNATIONAL RESIDENTIAL CODE FOR ONE- AND TWO-FAMILY DWELLINGS, INCLUDING APPENDICES AE, AG, AI, AJ, AK, AM, AP AND AQ

The City hereby adopts by this reference the 2021 International Residential Code For One- and Two-Family Dwellings with Appendices AE, AG, AI, AJ, AK, AM, AP and AQ, with the following amendments by additions, insertions, deletions and changes to read as follows:.

(CHAPTER 1 SCOPE AND ADMINISTRATION)

(SECTION R101 SCOPE AND GENERAL REQUIREMENTS)

R101.1 Title. These regulations shall be known as the Residential Code for One- and Two-Family Dwellings of the City of Flint Hill, Missouri, and shall be cited as such and will be referred to herein as "this code."

R101.2 Scope. The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, removal and demolition of detached one- and two-family dwellings and townhouses not more than three stories above grade plane in height with a separate means of egress and their accessory structures not more than three stories above grade plane in height.

Exceptions: The following shall be permitted to be constructed in accordance with this code:

1. Live/work units located in townhouses and complying with the requirements of the Building Code of the City of Flint Hill, Missouri, when provided with an automatic sprinkler system complying with Section P2904.

2. Owner-occupied lodging houses with five or fewer guestrooms.

3. A care facility with eight or fewer persons receiving custodial care within a dwelling unit.

4. A care facility with eight or fewer persons receiving medical care within a dwelling unit.

5. A care facility with eight or fewer persons receiving care that are within a single-family dwelling.

(SECTION R103 CODE COMPLIANCE AGENCY)

R103.1 Creation of enforcement agency. The City Building Department is hereby created, and the official in charge thereof shall be known as the Building Inspector. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

R103.2 Appointment. The Building Inspector is appointed as provided by Ordinance.

(SECTION R105 PERMITS)

R105.2 Work exempt from permits. Exemptions from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of the City. Permits shall not be required for the following:

Building:

1. Other than storm shelters, one-story detached accessory structures, provided that the floor area does not exceed 120 square feet (11.15 m^2) or 200 square feet (18.58 m^2) for portable structures.

2. Fences not over 4 (1,219 mm) feet high.

3. Retaining walls that are not over 4 feet (1,219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge.

4. Water tanks supported directly on grade if the capacity is not greater than 5,000 gallons (18,925 L) and the ratio of height to diameter or width is not greater than 2:1.

5. Sidewalks and driveways.

6. Painting, papering, tiling, carpeting, cabinets, counter tops, and similar finish work.

7. Prefabricated swimming pools that are less than 24 inches (610 mm) deep.

8. Swings and other playground equipment.

9. Window awnings supported by an exterior wall that do not project more than 54 inches (1,372 mm) from the exterior wall and do not require additional support.

10. Decks not exceeding 200 square feet (18.58 m^2) in area, that are not more than 30 inches (762 mm) above grade at any point, are not attached to a dwelling and do not serve the exit door required by Section R311.4.

11. Flag poles less than 40 feet in height.

12. Replacement of 3 or less doors and/or windows where the opening size is not increased or decreased.

Electrical:

1. Listed cord-and-plug connected temporary decorative lighting.

2. Reinstallation of attachment plug receptacles but not the outlets therefor.

3. Replacement of branch circuit overcurrent devices of the required capacity in the same location.

4. Electrical wiring, devices, appliances, apparatus or equipment operating at less than 25 volts and not capable of supplying more than 50 watts of energy.

5. Minor repair work, including the replacement of lamps or the connection of approved portable electrical equipment to approved permanently installed receptacles.

Gas:

1. Portable heating, cooking or clothes drying appliances.

2. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.

3. Portable-fuel-cell appliances that are not connected to a fixed piping system and are not interconnected to a power grid.

Mechanical:

1. Portable heating appliance.

2. Portable ventilation equipment.

3. Portable cooling unit.

4. Steam, hot, or chilled water piping within any heating or cooling equipment regulated by this code.

5. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.

6. Portable evaporative cooler.

7. Self-contained refrigeration system containing 10 pounds (4.54 kg) or less of refrigerant or that are actuated by motors of 1 horsepower (746 W) or less.

8. Portable-fuel-cell appliances that are not connected to a fixed piping system and are not interconnected to a power grid.

Plumbing:

1. The stopping of leaks in drains, water, soil, waste, or vent pipe; provided, however, that if any concealed trap, drainpipe, water, soil, waste or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered as new work, and a permit shall be obtained and inspection made as provided in this code.

2. The clearing of stoppages or the repairing of leaks in pipes, valves, or fixtures, and the removal and reinstallation of water closets, provided such repairs do not involve or require the replacement or rearrangement of valves, pipes, or fixtures.

3. Fixture replacement with similar fixtures where plumbing connections are not relocated, and new fittings and valves are not installed.

4. R105.5.1 Reinstatement. A permit that has expired may be reinstated where approved by the Building Inspector. The request for reinstatement shall be in writing and justifiable cause demonstrated.

(SECTION R106 CONSTRUCTION DOCUMENTS)

R106.1 Submittal documents. Submittal documents consisting of construction documents, and other data shall be submitted as required by the Building Inspector, with each permit application. The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist, the Building Inspector is authorized to require additional construction documents to be prepared by a registered design professional.

Exception: The Building Inspector is authorized to waive the submission of construction documents and other data not required to be prepared by a registered design professional if it is found that the nature of the work applied for is such that review of construction documents is not necessary to obtain compliance with this code.

R106.1.6 Electronic submission. 107.1.2 Electronic submission. Where design documents including, but not limited to, plot plans, site plans, design drawings, specifications, etc., are originally created electronically, the Building Inspector is authorized to require electronic submittal of documents in a portable document format (PDF) or similar format for review. Where design documents were originally prepared on paper and are submitted in a paper form, the Building Inspector is authorized to charge a fee for converting those drawings to PDF equal to the cost incurred by City recreating the document and not to exceed more than one (1) dollar per page.

> Exception: Where submittal documents were originally prepared by hand and are 11 inches by 17 inches or less, the fee for document conversion shall not be charged.

R106.3.1 Approval of construction documents. Where the Building Inspector issues a permit, the construction documents shall be approved in writing or by a stamp that states "REVIEWED FOR CODE COMPLIANCE." One set of construction documents so reviewed shall be retained by the Building Inspector. The other set shall be returned to the applicant, may be kept at the site of work or made available at time of inspection, and shall be open to inspection by the Building Inspector or a duly authorized representative.

(SECTION R108 FEES)

R108.6 Work commencing before permit issuance. Any person who commences work requiring a permit on a building, structure, electrical, gas, mechanical or plumbing system before obtaining the necessary permits shall be subject to a fee established by the applicable governing authority that shall be in addition to the required permit fees.

Exceptions:

1. Rough grading less than 5,000 square feet, not to include excavating for basements.

2. Stakeouts and other similar preparatory actions.

(SECTION R112 MEANS OF APPEALS)

R112.1 General. For the purposes of this code, all appeals shall be in accordance with the procedure established for the Building Code of the City of Flint Hill, Missouri, as provided in Section 5 of this Ordinance, at Section 113.1 through 113.5.

R112.2 Limitations on authority. DELETED.

R112.3 Qualifications. DELETED.

R112.4 Administration. DELETED.

(SECTION R113 VIOLATIONS)

R113.4 Violation penalties. Any person who violates a provision of this code or fails to comply with any of the requirements thereof or who repairs or alters or changes the occupancy of a building or structure in violation of the approved construction documents or directive of the Building Inspector, or of a permit or certificate issued under the provisions of this code, shall be guilty of a misdemeanor and upon conviction thereof shall be punishable by a fine of not more than five hundred ($500.00) dollars, and each day's continuance of a violation shall be deemed a separate offense.

(SECTION R114 STOP WORK ORDER)

R114.2 Issuance. The stop work order shall be in writing and shall be given to the owner of the property involved, the owner's authorized agent or the person performing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order

and the conditions under which the cited work will be authorized to resume. Any person served with a stop work order shall pay an administrative penalty of up to two hundred fifty dollars ($250.00).

(CHAPTER 3 BUILDING PLANNING)

(SECTION R301 DESIGN CRITERIA)

Table R301.2 shall have the required information inserted to read as follows:

TABLE R301.2

CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

MANUAL J DESIGN CRITERIA[n]

Elevation	Altitude correction factor[e]	Coincident wet bulb	Indoor winter design dry-bulb temperature	Indoor winter design dry-bulb temperature	Outdoor winter design dry-bulb temperature	Heating temperature difference
--	--	--	--	--	--	--
Latitude	Daily range	Indoor summer design relative humidity	Indoor summer design relative humidity	Indoor summer design dry-bulb temperature	Outdoor summer design dry-bulb temperature	Cooling temperature difference
--	--	--	--	--	--	--

For SI: 1 pound per square foot = 0.0479 kPa, 1 mile per hour = 0.447 m/s.

Ground Snow Load[o]	Wind Design				Seismic Design Category[f]	Subject to Damage From			Ice Barrier Underlayment Required[h]	Flood Hazards[g]	Air Freezing Index[i]	Mean Annual Temp[j]
	Speed[d] (mph)	Topographic effects[k]	Special wind region[l]	Wind-borne debris zone[m]		Weathering[a]	Frost line depth[b]	Termite[c]				
20	107(48)	NO	NO	NO	C	Severe	30	Moderate to Heavy	NO	9/15/1978 3/9/2021	1000	55

a. Where weathering requires a higher strength concrete or grade of masonry than necessary to satisfy the structural requirements of this code, the frost line depth strength required for weathering shall govern. The weathering column shall be filled in with the weathering index, “negligible,” “moderate” or “severe” for concrete as determined from Figure R301.2(1). The grade of masonry units shall be determined from ASTM C34, ASTM C55, ASTM C62, ASTM C73, ASTM C90, ASTM C129, ASTM C145, ASTM C216 or ASTM C652.

b. Where the frost line depth requires deeper footings than indicated in Figure R403.1(1), the frost line depth strength required for weathering shall govern. The jurisdiction shall fill in the frost line depth column with 30, the minimum depth of footing below finish grade.
c. The jurisdiction shall fill in this part of the table to indicate the need for protection depending on whether there has been a history of local subterranean termite damage.
d. The jurisdiction shall fill in this part of the table with the wind speed from the basic wind speed map [Figure R301.2(2). Wind exposure category shall be determined on a site-specific basis in accordance with Section R301.2.1.4.
e. The jurisdiction shall fill in this part of the table to establish the design criteria using table 10A from ACCA Manual J or established criteria determined by the jurisdiction.
f. The jurisdiction shall fill in this part of the table with the seismic design category determined from Section R301.2.2.1.
g. The jurisdiction shall fill in this part of the table with: the date of the jurisdiction's entry into the National Flood Insurance Program (date of adoption of the first code or ordinance for management of flood hazard areas); and the title and date of the currently effective Flood Insurance Study or other flood hazard study.
h. In accordance with Sections R905.1.2, R905.4.3.1, R905.5.3.1, R905.6.3.1, R905.7.3.1 and R905.8.3.1, where there has been a history of local damage from the effects of ice damming, the jurisdiction shall fill in this part of the table with "YES." Otherwise, the jurisdiction shall fill in this part of the table with "NO."
i. The jurisdiction shall fill in this part of the table with the 100-year return period air freezing index (BF-days) from Figure R403.3(2) or from the 100-year (99 percent) value on the National Climatic Data Center data table "Air Freezing Index–USA Method (Base 32oF)."
j. The jurisdiction shall fill in this part of the table with the mean annual temperature from the National Climatic Data Center data table "Air Freezing Index–USA Method (Base 32oF)."
k. In accordance with Section R301.2.1.5, where there is local historical data documenting structural damage to buildings due to topographic wind speed-up effects, the jurisdiction shall fill in this part of the table with "YES." Otherwise, the jurisdiction shall indicate "NO" in this part of the table.
l. In accordance with Figure R301.2(2), where there is local historical data documenting unusual wind conditions, the jurisdiction shall fill in this part of the table with "YES" and identify any specific requirements. Otherwise, the jurisdiction shall indicate "NO" in this part of the table.
m. In accordance with Section R301.2.1.2, the jurisdiction shall indicate the wind-borne debris wind zone(s). Otherwise the jurisdiction shall indicate "NO" in this part of the table.
n. The jurisdiction shall fill in these sections of the table to establish the design criteria using Table 1a or 1b from ACCA Manual J or established criteria determined by the jurisdiction.
o. The jurisdiction shall fill in this section of the table using the Ground Snow Loads in Figure R301.2(3) and R301.2(4).

(SECTION R302 FIRE-RESISTANT CONSTRUCTION)

R302.5.1 Opening protection. 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 1-3/8 inches (35 mm) in thickness, solid or honeycomb-core steel doors not less than 1-3/8 inches (35 mm) thick, or 20-minute fire-rated doors

R302.13 Fire protection of floors. Floor assemblies that are not required elsewhere in this code to be fire-resistance rated, shall be provided with a 1/2-inch (12.7 mm) gypsum wallboard membrane, 5/8-inch (16 mm) wood structural panel membrane, or equivalent on the underside of the floor framing member. Penetrations or openings for ducts, vents, electrical outlets, lighting, devices, luminaires, wires, speakers, drainage, piping and similar openings or penetrations shall be permitted. Fire blocking, draft stopping, fire taping, and/or additional framing is not required.

Exceptions:

1. Floor assemblies located directly over a space protected by an automatic sprinkler system in accordance with Section P2904, NFPA 13D, or other approved equivalent sprinkler system.

2. Floor assemblies located directly over a crawl space not intended for storage or for the installation of fuel-fired or electric-powered heating appliances.

3. Portions of floor assemblies shall be permitted to be unprotected where complying with the following:

a. The aggregate area of the unprotected ~~portions~~ floor assembly does not exceed 100 square feet per HVAC zone.

b. Areas of the floor assembly covered by HVAC metal plenum, trunk lines, and steel structural beams shall be considered protected. Gypsum wallboard membrane shall be within 2 inches of all previously listed items.

4. Wood floor assemblies using dimension lumber or structural composite lumber equal to or greater than 2-inch by 10-inch (50.8 mm by 254 mm) nominal dimension, or other approved floor assemblies demonstrating equivalent fire performance.

(SECTION R303 LIGHT, VENTILATION AND HEATING)

R303.1.2 Unfinished Basements. Unfinished basements shall have an aggregate glazing area of not less than 1 percent of the floor area and shall be openable to the outdoors.

R303.5.2 Exhaust openings. Exhaust air shall not be directed below 6 feet and 8 inches onto public walkways.

R303.8 Exterior stairway illumination. Exterior stairways shall be provided with an artificial light. Exterior stairways providing access to a basement from the outdoor grade level shall be provided with an artificial light source located at the bottom landing of the stairway.

(SECTION R311 MEANS OF EGRESS)

R311.3 Floors and landings at exterior doors. There shall be a landing or floor on each side of each exterior door. The width of each landing shall not be less than the door served. Every landing shall have a dimension of not less than 36 inches (914 mm) measured in the direction of travel. The slope at exterior landings shall not to exceed 1/4 unit vertical in 12 units horizontal (2 percent).

Exceptions:

1. Exterior balconies less than 60 square feet (5.6 m^2) and only accessible from a door are permitted to have a landing less than 36 inches (914 mm) measured in the direction of travel.

2. Doors that are not required egress doors and are served by a stairway with no more than 3 risers.

3. Doors protected by a guard in accordance with this code.

4. Doors protected in a manner approved by the Building Inspector.

R311.3.2 Floor elevations for other exterior doors. Doors other than the required egress door shall be provided with landings or floors not more than 7 3/4 inches (196 mm) below the top of the threshold.

Exception: A top landing is not required where a stairway of not more than three risers is located on the exterior side of the door, provided that the door does not swing over the stairway.

(SECTION R313 AUTOMATIC FIRE SPRINKLER SYSTEMS)

R313.1 Townhouse automatic fire sprinkler systems. Any builder of a townhouse shall offer to any purchaser the option to install or equip such townhouse with an automatic sprinkler system at the purchaser's cost in accordance with the latest version of §67.281, RSMo.

Exception: An automatic residential fire sprinkler system shall not be required where additions or alterations are made to existing townhouses that do not have an automatic residential fire sprinkler system installed.

R313.2 One- and two-family dwellings automatic fire systems. Any builder of a one- or two-family dwellings shall offer to any purchaser the option to install or equip such one- or two-family dwellings with an automatic sprinkler system at the purchaser's cost in accordance with the latest version of §67.281, RSMo.

Exception: An automatic residential fire sprinkler system shall not be required for additions or alterations to existing buildings that are not already provided with an automatic residential sprinkler system.

(SECTION R314 SMOKE ALARMS)

R314.2.2 Alterations, repairs and additions. Where alterations, repairs or additions requiring a permit occur, the individual dwelling unit shall be equipped with smoke alarms located as required for new dwellings.

Exceptions:

1. Work involving the exterior surfaces of dwellings, such as the replacement of roofing or siding, or the addition of a porch or deck.

2. Installation, alteration or repairs of plumbing or mechanical systems.

R314.4 Interconnection. Where more than one smoke alarm is required to be installed within an individual dwelling unit in accordance with Section R314.3, the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual dwelling unit. Physical interconnection of smoke alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm.

Exception: Interconnection is not required in buildings which are only receiving the addition or replacement of windows or doors.

(SECTION R315 CARBON MONOXIDE ALARMS)

R315.2.2 Alterations, repairs and additions. Where alterations, repairs or additions requiring a permit occur, the individual dwelling unit shall be equipped with carbon monoxide alarms located as required for new dwellings.

Exceptions:

1. Work involving the exterior surfaces of dwellings, such as the replacement of roofing or siding, or the addition of a porch or deck.

2. Installation, alteration or repairs of plumbing systems.

3. Installation, alteration or repairs of mechanical systems that are not fuel fired.

(CHAPTER 4 FOUNDATIONS)

(SECTION R404 FOUNDATION AND RETAINING WALLS)

R404.1.3.2 Reinforcement for foundation walls. Concrete foundation walls shall be laterally supported at the top and bottom. Horizontal reinforcement shall be provided in accordance with Table R404.1.2(1). Vertical reinforcement shall be provided in accordance with Table R404.1.2(2), R404.1.2(3), R404.1.2(4), R404.1.2(4), R404.1.2(5), R404.1.2(6), R404.1.2(7) or R404.1.2(8). Vertical reinforcement for flat basement walls retaining 4 feet (1219 mm) or more of unbalanced backfill is permitted to be determined in accordance with Table R404.1.2(9). For basement walls supporting above-grade concrete walls, vertical reinforcement shall be the greater of that required by Tables R404.1.2(2) through R404.1.2(8) or by Section R608.6 for the above-grade wall. In building assigned to Seismic Design Category D0, D1 or D2, concrete foundation walls shall also comply with Section R404.1.4.2.

Exception: Where unstable soil or ground water conditions do not exist, as indicated by a provided soils report or letter sealed by a registered engineer licensed in the State of Missouri, concrete foundation walls may be constructed in accordance with Table R404.1.2(10).

Table R404.1.2(10 Concrete Foundation Walls)

Maximum Wall Height	Maximum Depth of Unbalanced Backfill	Minimum Nominal Wall Thickness
8’-0”	7’-8” or less	8” (Note a)
9’-0”	8’-6” or less	10” (Note b)
10’-0”	9’-6” or less	12” (Note c)

Note a: Concrete foundation walls may be constructed a minimum of nominal 8 inches thick where the wall height from the top of the footing to the top of the wall does not exceed 8 feet. A minimum of two #4 reinforcing bars shall be placed horizontally in the top and bottom of the foundation wall. A minimum of two #5 reinforcing bars shall be provided around all window and door openings in concrete foundation and basement walls; bars shall extend a minimum of 24 inches beyond the corners of the openings.

Note b: Concrete foundation walls may be constructed a minimum of nominal 10 inches thick. A minimum of two #5 reinforcing bars shall be placed horizontally in the top, middle, and bottom of the foundation wall. A minimum of two #5 reinforcing bars shall be provided around all window and door openings in concrete foundation and basement walls; bars shall extend a minimum of 24 inches beyond the corners of the openings.

Note c: Concrete foundation walls may be constructed a minimum of nominal 12 inches thick. A minimum of three #5 reinforcing bars shall be placed horizontally in the top, middle, and bottom of the foundation wall. A minimum of two #5 reinforcing bars shall be provided around all window and door openings in concrete foundation and basement walls; bars shall extend a minimum of 24 inches beyond the corners of the openings.

Note d: The concrete minimum wall thickness shall be 8 inches for foundation walls in soil classes SC, MH, ML-CL and inorganic CL when maximum wall height is 8 feet.

Note e: The concrete minimum wall thickness shall be 10 inches for foundation walls in soil classes SC, MH, ML-CL and inorganic CL when the maximum wall height is 9 feet.

Note f: The concrete minimum wall thickness shall be 12 inches for foundation walls in soil classes SC, MH, ML-CL and inorganic CL when the maximum wall height is 10 feet.

(SECTION R405 FOUNDATION DRAINAGE)

R405.1 Concrete or masonry foundations. Drains shall be provided around concrete or masonry foundations that retain earth and enclose habitable or usable spaces located below grade. Drainage tiles, gravel or crushed stone drains, perforated pipe or other approved systems or materials shall be installed at or below the area to be protected and shall discharge by gravity or mechanical means into an approved drainage system. Gravel or crushed stone drains shall extend not less than 1 foot (305 mm) beyond the outside edge of the footing and 6 inches (152 mm) above the top of the footing and be covered with an approved filter membrane material. The top of open joints of drain tiles shall be protected with strips of building paper. Except where otherwise recommended by the drain manufacturer, perforated drains shall be surrounded with an approved filter membrane or the filter membrane shall cover the washed gravel or crushed rock covering the drain. Drainage tiles or perforated pipe shall be placed on a minimum of 2 inches (51 mm) of washed gravel or crushed rock not less than one sieve size larger than the tile joint opening or perforation and covered with not less than 6 inches (152 mm) of the same material.

Exceptions:

1. A drainage system is not required where the foundation is installed on well-drained ground or sand-gravel mixture soils according to the Unified Soil Classification System, Group I soils, as detailed in Table R405.1.

2. Drains provided as detailed in Section R405.1.2 are approved as an alternative method to meet the requirements of this section.

R405.1.2 Soil evaluations. An evaluation of the soil for the presence or absence of ground water is required. The evaluation report shall be based on either a subsurface soil investigation or satisfactory data from adjacent areas together with an inspection of the excavation prior to pouring concrete.

R405.1.2.1 Ground water present. Provide drain tile, perforated pipe or other approved foundation drainage systems (such as water channel system) around perimeter of the outside of the foundation and inside the foundation. Drain discharge shall be by gravity to daylight or be connected to a basement floor sump.

R405.1.2.2 No ground water present. Provide drain tile, perforated pipe or other approved foundation drainage systems (such as water channel system) around perimeter of the outside of the foundation or inside the foundation. Drain discharge shall be by gravity to daylight or be connected to a basement floor sump.

R405.1.2.3 Filter membranes. An approved filter membrane shall be placed over the top of the joints/pipe perforations. The tile/pipe shall be placed on 2 inches minimum gravel or crushed stone and have 6-inch minimum cover.

R405.1.2.4 Drainage system. Drainage system shall discharge by gravity to daylight or be connected to an approved sump (18 inches in diameter x 24 inches deep with fitted cover) with pump. A sump pump shall be provided if the basement is finished or partially finished with pump discharge by an approved method.

(CHAPTER 5 FLOORS)

(SECTION R506 CONCRETE FLOORS (ON GROUND))

R506.2.3 Vapor Retarder. A minimum 6 mil (0.006 inch; 0.152 mm) vapor retarder conforming to ASTM E1745 Class A requirements with joints lapped not less than 6 inches (152 mm) shall be placed between the concrete floor slab and the base course or the prepared subgrade where a base course does not exist.

(CHAPTER 9 ROOF ASSEMBLIES)

(SECTION R905 REQUIREMENTS FOR ROOF COVERINGS)

R905.2.8.2 Valleys. Valley linings shall be installed in accordance with the manufacturer's instructions before applying shingles. Valley linings of the following types shall be permitted:

1. For open valleys (valley lining exposed) lined with metal, the valley lining shall be not less than 24 inches (610 mm) wide and of any of the corrosion-resistant metals in Table R905.2.8.2.

2. For open valleys, valley lining of two plies of mineral-surfaced roll roofing, complying with ASTM D3909 or ASTM D6380 Class M, shall be permitted. The bottom layer shall be 18 inches (457 mm) and the top layer not less than 36 inches (914 mm) wide.

3. For closed valleys (valley covered with shingles), valley lining of one ply of smooth roll complying with ASTM D 6380 and not less than 36 inches wide (914 mm) or valley lining as described in Item 1 and 2 shall be permitted. Self-adhering polymer modified bitumen underlayment complying with ASTM D1970 shall be permitted in lieu of the lining material.

4. For closed valleys and where not specified by the manufacturer, valley lining of two ply of No.15 felt complying with ASTM D226 Type I, ASTM D4869 Type I, or ASTM D6757, or valley lining as described in Item 3 shall be permitted.

R905.2.8.5 Drip Edge. A drip edge shall be provided at eaves and rake edges of shingle roofs. Adjacent segments of drip edge shall be overlapped not less than 2 inches (51 mm). Drip edges shall extend not less than 1/4 inch (6.4 mm) below the roof sheathing and extend up back onto the roof deck not less than 2 inches (51 mm). Drip edges shall be mechanically fastened to the roof deck at not more than 12 inches (305 mm) o.c. with fasteners as specified in Section R905.2.5. Underlayment shall be installed over the drip edge along eaves and under the drip edge along rake edges.

Exception: Unless the drip edge is specifically required by the manufacturer's installation instructions, metal wrapped fascia extending 1 inch under the roof covering with the underlayment installed over it shall be deemed to meet the requirements of this section.

(CHAPTER 11 ENERGY EFFICIENCY)

(SECTION N1101 GENERAL)

N1101.5 (R103.2) Information on construction documents. Construction documents shall be drawn to scale on suitable material. Electronic media documents are permitted to be submitted when *approved* by the Building Inspector. Construction documents and supporting secondary documentation shall be of sufficient clarity to indicate the location, nature and extent of the work proposed, and show in sufficient detail pertinent data and features of the building, systems and equipment as herein governed. Details shall include the following as applicable:

1. Energy compliance path.

2. Insulation materials and their *R*-values.

3. Fenestration, *U*-factors and solar heat gain coefficients (SHGC).

4. Area-weighted *U*-factor and solar heat gain coefficient (SHGC) calculations.

5. Mechanical system design criteria.

6. Mechanical and service water heating systems and equipment types, sizes and efficiencies.

7. Equipment and system controls.

8. Duct sealing, duct and pipe insulation and location.

9. Air sealing details.

N1101.6 Defined terms.

RESIDENTIAL BUILDING. For this code, includes detached one- and two-family dwellings and multiple single-family dwellings (townhouses) three stories or less in height above grade.

PROJECTION FACTOR. The ratio of the horizontal depth of an overhang, eave, or permanently attached shading device, divided by the distance measured vertically from the bottom of the fenestration glazing to the underside of the overhang, eave, or permanently attached shading device.

N1101.13 (R401.2) Application. Residential buildings shall comply with Section N1101.13.1, N1101.13.2, N1101.13.3 or N1101.13.4.

N1101.13.5 (R401.2.5) Additional energy efficiency. DELETED.

N1101.14 (R401.3) Certificate. Unless otherwise presented to the homeowner and Building Inspector in writing, A permanent certificate shall be completed by the builder or other approved party and posted on a wall in the space where the furnace is located, a utility room or an approved location inside the building. Where located on an electrical panel, the certificate shall not cover or obstruct the visibility of the circuit directory label, service disconnect label or other required labels. The certificate shall indicate the following:

1. The predominant R-values of insulation installed in or on ceilings, roofs, walls, foundation components such as slabs, basement walls, crawl space walls and floors, and ducts outside conditioned spaces.

2. U-factors of fenestration and the solar heat gain coefficient (SHGC) of fenestration. Where there is more than one value for any component of the building envelope, the certificate shall indicate both the value covering the largest area and the area weighted average value if available.

3. The results from any required duct system and building envelope air leakage testing performed on the building.

4. The types, sizes and efficiencies of heating, cooling and service water heating equipment. Where a gas-fired unvented room heater, electric furnace, or baseboard electric heater is installed in the residence, the certificate shall indicate “gas-fired unvented room heater,” “electric

furnace" or "baseboard electric heater," as appropriate. An efficiency is not required to be indicated for gas-fired unvented room heaters, electric furnaces and electric baseboard heaters.

5. Where on-site photovoltaic panel systems have been installed, the array capacity, inverter efficiency, panel tilt and orientation shall be noted on the certificate.

6. For buildings where an Energy Rating Index score is determined in accordance with Section N1106, the Energy Rating Index score, both with and without any on-site generation, shall be listed on the certificate.

7. The code edition under which the structure was permitted and the compliance path used.

(SECTION N1102 (R402) BUILDING THERMAL ENVELOPE)

Replace Table N1102.1.3 (R402.1.3) Entitled "Insulation Minimum R-Values And Fenestration Requirements By Component" With The Table Provided Below:

TABLE N1102.1.3 (R402.1.3)
INSULATION MINIMUM R-VALUES AND FENESTRATION REQUIREMENTS BY COMPONENT[a]

CLIMATE ZONE	FENESTRATION U-FACTOR[b, i]	SKYLIGHT[b] U-FACTOR	GLAZED FENESTRATION SHGC[b, e]	CEILING R-VALUE	WOOD FRAME WALL R-VALUE[g]	MASS WALL R-VALUE[h]	FLOOR R-VALUE	BASEMENT[f,g] WALL R-VALUE	SLAB[d] R-VALUE & DEPTH	CRAWL SPACE[c, g] WALL R-VALUE
4A	.35	.60	NR	38	13	5/10	19	10ci or 13[j]	10, 2 ft	10/13

For SI: 1 foot = 304.8 mm.
NR = Not Required.
ci = continuous insulation.
a. R-values are minimums. U-factors and SHGC are maximums. Where insulation is installed in a cavity that is less than the label or design thickness of the insulation, the installed R-value of the insulation shall be not less than the R-value specified in the table.
b. The fenestration U-factor column excludes skylights. The SHGC column applies to all glazed fenestration.
Exception: In Climate Zones 0 through 3, skylights shall be permitted to be excluded from glazed fenestration SHGC requirements provided that the SHGC for such skylights does not exceed 0.30.
c. "5ci or 13" means R-5 continuous insulation (ci) on the interior or exterior surface of the wall or R-13 cavity insulation on the interior side of the wall. "10ci or 13" means R-10 continuous insulation (ci) on the interior or exterior surface of the wall or R-13 cavity insulation on the interior side of the wall. "15ci or 19 or 13 & 5ci" means R-15 continuous insulation (ci) on the interior or exterior surface of the wall; or R-19 cavity insulation on the interior side of the wall; or R-13 cavity insulation on the interior of the wall in addition to R-5 continuous insulation on the interior or exterior surface of the wall.
d. R-5 insulation shall be provided under the full slab area of a heated slab in addition to the required slab edge insulation R-value for slabs. as indicated in the table. The slab-edge insulation for heated slabs shall not be required to extend below the slab.
e. There are no SHGC requirements in the Marine Zone.
f. Basement wall insulation is not required in Warm Humid locations as defined by Figure R301.1 and Table R301.1.
g. The first value is cavity insulation; the second value is continuous insulation. Therefore, as an example, "13&5" means R-13 cavity insulation plus R-5 continuous insulation.

ORIENTATION	PROJECTION FACTOR
North	>=0.40 [a]
South	>=0.20
East	>=0.50
West	>=0.50

h. Mass walls shall be in accordance with Section R402.2.5. The second R-value applies where more than half of the insulation is on the interior of the mass wall.
i. A maximum U-factor of 0.32 shall apply in Climate Zones 3 through 8 to vertical fenestration products installed in buildings located either:
1. Above 4,000 feet in elevation, or
2. In windborne debris regions where protection of openings is required by Section R301.2.1.2 of the International Residential Code.
j. Unfinished basements may have up to a maximum of 20 percent of the total basement wall area exposed above the outside finished grade/ground level as uninsulated concrete foundation walls. The foundation wall area above the outside grade/ground level that may be uninsulated is determined by the formula [.20 times the basement wall height of all walls (including insulated exterior frame walls for walkout basements and walls common to both basement and attached garages) times the perimeter of these basement walls]. In unfinished areas, the basement foundation wall insulation shall extend down to the basement floor slab or to a minimum of 24 inches below outside finished grade when the grade is above the floor slab elevation.

N1102.1.5 (R402.1.5) Total UA alternative. Where the total building thermal envelope UA, the sum of U-factor times assembly area, is less than or equal to the Total UA resulting from multiplying the U-factors in Table N1102.1.2 by the same assembly area as in the proposed building, the building shall be considered to be in compliance with Table N1102.1.2. The UA calculation shall be performed using a method consistent with the ASHRAE Handbook of Fundamentals and shall include the thermal bridging effects of framing materials. In addition to UA compliance, the SHGC requirements of Table N1102.1.2 and the maximum fenestration U-factors of Section N1102.5 shall be met.

> Exception: Glazed fenestration SHGC. In Climate Zone 4, permanently shaded vertical fenestration shall be permitted to satisfy SHGC requirements. The projection factor of an overhang, eave, or permanently attached shading device shall be greater than or equal to the value listed in Table N1102.2.2.1 for the appropriate orientation. The minimum projection shall extend beyond each side of the glazing a minimum of 12 inches. Each orientation shall be rounded to the nearest cardinal orientation (+/- 45 degrees or 0.79 rad) for purposes of calculations and demonstrating compliance.

Table N1102.1.5
Minimum Projection Factor Required by Orientation for SHGC Exception

For the north orientation, a vertical projection located on the west-edge of the fenestration with the equivalent of PF>=0.15 shall also satisfy the minimum projection factor requirement.

N1102.4 (R402.4) Air leakage. The building thermal envelope ~~shall~~ may be designed and constructed to limit air leakage in accordance with the requirements of Sections N1102.4.1 through N1102.4.5.

Modify Table N1102.4.1.1 (R402.4.1.1) Entitled “Air Barrier and Insulation Installation” to read as follows:

Table N1102.4.1.1 (R402.4.1.1)[a]
Air Barrier and Insulation Installation

Component	Air Barrier Criteria	Insulation Installation Criteria
General Requirements	A continuous air barrier shall be installed in the building envelope. Breaks or joints in the air barrier shall be sealed.	Air-permeable insulation shall not be used as a sealing material.
Ceiling/attic	The air barrier in any dropped ceiling or soffit shall be aligned with the insulation and any gaps in the air barrier sealed. Access openings, drop-down stairs or knee wall doors to unconditioned attic spaces shall be weather-stripped.	The insulation in any dropped ceiling/soffit shall be aligned with the air barrier.
Walls	The junction of the foundation and sill plate shall be sealed.	Cavities within corners and headers of frame walls shall be insulated by completely filling the cavity with a material having a thermal resistance, R-value, of not less than R-3 per inch. Exterior thermal envelope insulation for framed walls shall be installed in substantial contact and continuous alignment with the air barrier.
Windows, skylights and doors	The space between framing and skylights, and the jambs of windows and doors, shall be sealed.	
Rim joists	Rim joists shall include an exterior air barrier.[b]	Rim joists shall be insulated.
Floors, including cantilevered floors and floors above garages	The air barrier shall be installed at any exposed edge of insulation.	Floor framing cavity insulation shall be installed to maintain permanent contact with the underside of subfloor decking. Alternatively, floor framing cavity insulation shall be in contact with the top side of sheathing, or continuous insulation installed on the underside of floor framing and extending from the bottom to the top of all perimeter floor framing members.
Basement crawl space, and slab foundations	Exposed earth in unvented crawl spaces shall be covered with Class I vapor retarder/air barrier in accordance with Section N1102.2.10 (R402.2.10).	Crawl space insultation, where provided instead of floor insulation, shall be installed in accordance with Section N1102.2.10 (R402.2.10).

	Penetrations through concrete foundation walls and slabs shall be air sealed. Class 1 vapor retarders shall not be used as an air barrier on below-grade walls and shall be installed in accordance with Section R702.7	
Shafts, penetrations	Duct and flue shafts and other similar penetrations to exterior or unconditioned space shall be sealed to allow for expansion, contraction and mechanical vibration. Utility penetrations of the air barrier shall be caulked, gasketed or otherwise sealed and shall allow for expansion, contraction of materials and mechanical vibration.	Insulation shall be fitted tightly around utilities passing through shafts and penetrations in the building thermal envelope to maintain required R-value.
Narrow cavities	Narrow cavities of 1 inch or less that are not able to be insulated shall be air sealed.	Batts to be installed in narrow cavities shall be cut to fit or narrow cavities shall be filled with insulation that on installation readily conforms to the available cavity space.
Garage separation	Air sealing shall be provided between the garage and conditioned spaces.	Insulated portions of the garage separation assembly shall be installed in accordance with Sections R303 and N1102.2.7 (R402.2.7).
Recessed lighting	Recessed light fixtures installed in the building thermal envelope shall be sealed in accordance with Section N1104.4.5 (R402.4.5).	Recessed light fixtures installed in the building thermal envelope shall be airtight and IC rated, and shall be buried or surrounded with insulation.
Plumbing, wiring or other obstructions	All holes created by wiring, plumbing or other obstructions in the air barrier assembly shall be air sealed.	Insulation shall be installed to fill the available space and surround wiring, plumbing, or other obstructions, unless the required R-value can be met by installing insulation and air barrier systems completely to the exterior side of the obstructions.
Shower/tub on exterior wall	The air barrier installed at exterior walls adjacent to showers and tubs shall separate the wall from the shower or tub.	Exterior walls adjacent to showers and tubs shall be insulated.
Electrical/phone box on exterior walls	The air barrier shall be installed behind electrical and communication boxes. Alternatively, air-sealed boxes shall be installed.	—
HVAC register boots	HVAC supply and return register boots that penetrate building thermal envelope shall be sealed to the subfloor, wall covering or ceiling penetrated by the boot.	—

Concealed sprinklers	Where required to be sealed, concealed fire sprinklers shall only be sealed in a manner that is recommended by the manufacturer. Caulking or other adhesive sealants shall not be used to fill voids between fire sprinkler cover plates and walls or ceilings.	—

For SI: 1 inch = 25.4 mm.

a. Inspection of log walls shall be in accordance with the provisions of ICC 400.

b. Air barrier and insulation full enclosure is not required in unconditioned/ventilated attic spaces and at rim joists.

N1102.4.1.2 (R402.4.1.2) Testing. Any building or dwelling unit may be tested for air leakage. The maximum design air leakage rate for any building or dwelling unit under any compliance path shall not exceed 5.0 air changes per hour or 0.28 cubic feet per minute (CFM) per square foot [0.0079 $m^3/(s \times m^2)$] of dwelling unit enclosure area. For any building or dwelling unit designed for 3.0 or less air changes per hour, testing shall be conducted in accordance with ANSI/RESNET/ICC 380, ASTM E779 or ASTM E1827 and reported at a pressure of 0.2 inch w.g. (50 Pascals). Where required by the Building Inspector, testing shall be conducted by an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the Building Inspector. Testing shall be performed at any time after creation of all penetrations of the building thermal envelope have been sealed.

Exception: For heated, attached private garages and heated, detached private garages accessory to one- and two-family dwelling and townhouses not more than three stories above grade plane in height, building envelope tightness and insulation installation shall be considered acceptable where the items in Table N1102.4.1.1, applicable to the method of construction, are field verified. Where required by the Building Inspector, an approved third party, independent from the installer shall inspect both the air barrier and insulation installation criteria. Heated, attached private garage space shall be thermally isolated from all other conditioned spaces in accordance with Sections N1102.2.12 and N1102.3.5, as applicable.

During testing:

1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration control measures.

2. Dampers including exhaust, intake, makeup air, backdraft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures.

3. Interior doors, where installed at the time of the test, shall be open.

4. Exterior or interior terminations for continuous ventilation systems shall be sealed.

5. Heating and cooling systems, where installed at the time of the test, shall be turned off.

6. Supply and return registers, where installed at the time of the test, shall be fully open.

Exception: When testing individual dwelling units, an air leakage rate not exceeding 0.30 cubic feet per minute per square foot [$0.008 m^3/(s \times m^2)$] of the dwelling unit

enclosure area, tested in accordance with ANSI/RESNET/ICC 380, ASTM E779 or ASTM E1827 and reported at a pressure of 0.2 inch water gauge (50 Pa), shall be permitted in all climate zones for:

1. Attached single- and multiple-family building dwelling units.

2. Buildings or dwelling units that are 1,500 square feet (139.4m^2) or smaller.

3. Mechanical ventilation shall be provided in accordance with Section M1505 of this code or Section 403.3.2 of the International Mechanical Code, as applicable, or with other approved means of ventilation.

N1102.4.1.3 (R402.4.1.3) Leakage rate. Where complying with Section N1101.13.1. the building or dwelling unit shall have a design air leakage rate not exceeding 5.0 air changes per hour

N1102.4.4 (R402.4.4) Rooms containing fuel-burning appliances. In Climate Zones 3 through 8, where open combustion airducts provide combustion air to open combustion fuel-burning appliances, the appliances and combustion air opening shall be located outside the building thermal envelope or enclosed in a room that is isolated from inside the thermal envelope. Such rooms shall be sealed and insulated in accordance with the envelope requirements of Table N1102.1.3, where the walls, floors and ceilings shall meet a minimum of the basement wall R-value requirement. The door into the room shall be fully gasketed and any water lines and ducts in the room insulated in accordance with Section N1103. The combustion air duct shall be insulated where it passes through conditioned space to an R-value of not less than R-8.

Exceptions:

1. Direct vent appliances with both intake and exhaust pipes installed continuous to the outside.

2. Fireplaces and stoves complying with Sections N1102.4.2 and R1006.

3. Mechanical equipment in an unfinished space.

(SECTION N1103 (R403) SYSTEMS)

N1103.3.4 (R403.3.4) Sealing. Ducts, air handlers and filter boxes shall be sealed. Joints and seams shall comply with either the International Mechanical Code or Section M1601.4.1 of this code, as applicable.

Exceptions:

1. Air-impermeable spray foam products shall be permitted to be applied without additional joint seals.

2. Continuously welded and locking-type longitudinal joints and seams in ducts operating at static pressure less than 2 inches of water column (500 Pa) pressure classification shall not require additional closure systems.

3. A duct air leakage test shall not be required where the ducts and air handlers are located entirely within the building thermal envelope.

N1103.3.5 (R403.3.5) Duct testing. Ducts shall be pressure tested in accordance with ANSI/RESNET/ICC 380 or ASTM E1554 to determine air leakage by one of the following methods:

1. Rough-in test: Total leakage shall be measured with a pressure differential of 0.1 inch w.g. (25 Pa) across the system, including the manufacturer's air handler enclosure if installed at the time of the test. Registers shall be taped or otherwise sealed during the test.

2. Postconstruction test: Total leakage shall be measured with a pressure differential of 0.1 inch w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. Registers shall be taped or otherwise sealed during the test.

Exceptions:

1. A duct air-leakage test shall not be required where the ducts and air handlers are located entirely within the building thermal envelope.

2. A duct air-leakage test shall not be required for ducts serving heating, cooling or ventilation systems that are not integrated with ducts serving heating or cooling systems.

N1103.3.7 (R403.3.7) Building cavities. Building framing cavities ~~shall not be used as ducts or plenums~~ used as air plenums shall comply with section M1601.1.1 #7.

N1103.5.2 (R403.5.2) Hot water pipe insulation. Insulation for service hot water piping with a thermal resistance, R-value, of not less than R-3 shall be applied to the following:

1. Piping larger than ¾ inch (19 mm) ~~and larger~~ in nominal diameter located inside the conditioned space.

2. Piping serving more than one dwelling unit.

3. Piping located outside the conditioned space.

4. Piping from the water heater to a distribution manifold.

5. Piping located under a floor slab.

6. Buried piping.

7. Supply and return piping in circulation and recirculation systems other than cold water pipe return demand recirculation systems.

N1103.6.1 (R403.6.1) Heat or energy recovery ventilation. DELETED.

N1103.6.2 (R403.6.2) Whole-dwelling mechanical ventilation system fan efficacy. DELETED.

Table N1103.6.2 (R403.6.2) "Whole-Dwelling Mechanical Ventilation System Fan Efficacy[a]. DELETED.

N1103.6.3 (R403.6.3) Testing. DELETED.

(SECTION N1104 (R404) ELECTRICAL POWER AND LIGHTING SYSTEMS)

N1104.2 (R404.2) Interior lighting controls. DELETED.

N1104.3 (R404.3) Exterior lighting controls. DELETED.

(CHAPTER 13 GENERAL MECHANICAL SYSTEM REQUIREMENTS)

(SECTION M1301 GENERAL)

M1301.2 Identification. DELETED..

M1301.3 Installation of materials. DELETED.

M1301.4 Plastic pipe, fittings and components. DELETED.

M1301.5 Third-party testing and certification. DELETED.

(SECTION M1305 APPLIANCE ACCESS)

M1305.1.3.1 Ground clearance. Equipment and appliances supported from the ground shall be level and firmly supported on a concrete slab or other approved material extending not less than 2 inches (50.8 mm) above the adjoining ground. Such support shall be in accordance with the manufacturer's installation instructions. Appliances suspended from the floor shall have a clearance of not less than 6 inches (152 mm) from the ground.

(CHAPTER 14 HEATING AND COOLING
EQUIPMENT AND APPLIANCES)
(SECTION M1404 REGRIGERATION COOLING
EQUIPMENT)

M1404.1 Compliance. Refrigeration cooling equipment shall be listed and labeled in accordance with UL 484, UL 1995 or UL/CSA 60335-2-40. (SECTION M1411 HEATING AND COOLING EQUIPMENT)

M1411.2 Refrigeration system listing. Refrigeration systems using Group A2L refrigerants shall be listed and labeled to UL/CSA 60335-2-40. Refrigeration systems using Group A1 refrigerants shall be listed to UL/CSA 60335-2-40 or UL 1995. The equipment shall be installed in accordance with the listing.

M1411.3 Refrigeration system installation.
Refrigeration systems shall be installed in accordance with the manufacturer's installation instructions. After installation, the manufacturer's installation instructions, owner's manuals, service manuals and any other product literature provided with the equipment shall be attached to the indoor unit or left with the homeowner.

M1411.4 Field-installed accessories. Field-installed accessories shall be installed in accordance with the accessory and equipment manufacturer's installation instructions. Accessories installed in the ductwork of Group A2L refrigeration systems shall not contain electric heating elements, open flames, or devices switching electrical loads greater than 2.5 kVA.

M1411.5 Signs and identification. Each refrigeration system using Group A2L refrigerant shall have the following information legibly and permanently indicated on a markable label provided by the equipment manufacturer.

1. Contact information of the responsible company that installed the refrigeration system.
2. The system refrigerant charge and the refrigerant number.

M1411.6 Refrigerant charge. Refrigeration systems shall have refrigerant charge in compliance with the equipment manufacturer's installation instructions and the requirements of the listing. Group A2L refrigerant charge for an individual refrigeration system shall not exceed 34.5 pounds (15.7 kg).

M1411.7 Group A2L refrigerant piping testing. The piping system containing Group A2L refrigerant shall be tested in accordance with the manufacturer's installation instructions and the requirements of the listing.

M1411.8 Refrigeration coils in warm-air furnaces.
Where a cooling coil is located in the supply plenum of a warm-air furnace, the furnace blower shall be rated at not less than 0.5-inch water column (124 Pa) static pressure unless the furnace is listed and labeled for use with a cooling coil. Cooling coils shall not be located upstream from heat exchangers unless listed and labeled for such use. Conversion of existing furnaces for use with cooling coils shall be permitted provided that the furnace will operate within the temperature rise specified for the furnace.

M1411.9 Condensate disposal. Condensate from cooling coils and evaporators shall be conveyed from the drain pan outlet to an approved place of disposal. Such piping shall maintain a minimum horizontal slope in the direction of discharge of not less than 1/8 unit vertical in 12 units horizontal (1-percent slope). Condensate shall not discharge into a street, alley or other area where it would cause a nuisance.

M1411.9.1 Auxiliary and secondary drain systems. In addition to the requirements of Section M1411.[3]9, a secondary drain or auxiliary drain pan shall be required for each cooling or evaporator coil where damage to any building components will occur as a result of overflow from the equipment

drain pan or stoppage in the condensate drain piping. Such piping shall maintain a minimum horizontal slope in the direction of discharge of not less than 1/8 unit vertical in 12 units horizontal (1-percent slope). Drain piping shall be not less than 3/4-inch (19 mm) nominal pipe size. One of the following methods shall be used:

1. An auxiliary drain pan with a separate drain shall be installed under the coils on which condensation will occur. The auxiliary pan drain shall discharge to a conspicuous point of disposal to alert occupants in the event of a stoppage of the primary drain. The pan shall have a minimum depth of 1.5 inches (38 mm), shall be not less than 3 inches (76 mm) larger than the unit or the coil dimensions in width and length and shall be constructed of corrosion-resistant material. Galvanized sheet steel pans shall have a minimum thickness of not less than 0.0236-inch (0.6010 mm) (No. 24 Gage). Nonmetallic pans shall have a minimum thickness of not less than 0.0625 inch (1.6 mm).

2. A separate overflow drain line shall be connected to the drain pan installed with the equipment. This overflow drain shall discharge to a conspicuous point of disposal to alert occupants in the event of a stoppage of the primary drain. The overflow drain line shall connect to the drain pan at a higher level than the primary drain connection.

3. An auxiliary drain pan without a separate drain line shall be installed under the coils on which condensation will occur. This pan shall be equipped with a water level detection device conforming to UL 508 that will shut off the equipment served prior to overflow of the pan. The pan shall be equipped with a fitting to allow for drainage. The auxiliary drain pan shall be constructed in accordance with Item 1 of this section.

4. A water-level detection device conforming to UL 508 shall be installed that will shut off the equipment served in the event that the primary drain is blocked. The device shall be installed in the primary drain line, the overflow drain line or the equipment-supplied drain pan, located at a point higher than the primary drain line connection and below the overflow rim of such pan.

M1411.9.1.1 Water-level monitoring devices.
On down-flow units and other coils that do not have secondary drain or provisions to install a secondary or auxiliary drain pan, a water-level monitoring device shall be installed inside the primary drain pan. This device shall shut off the equipment served in the event that the primary drain becomes restricted. Devices shall not be installed in the drain line.

M1411. [3]9.1.2 Appliance, equipment and insulation in pans. Where appliances, equipment or insulation are subject to water damage when auxiliary drain pans fill, that portion of the appliance, equipment and insulation shall be installed above the rim of the pan. Supports located inside of the pan to support the appliance or equipment shall be water resistant and approved.

M1411.9.2 Drainpipe materials and sizes.
Components of the condensate disposal system shall be ABS, cast iron, copper, cross-linked polyethylene, CPVC, galvanized steel, PE-RT, polyethylene, polypropylene or PVC pipe or tubing. Components shall be selected for the pressure and temperature rating of the installation. Joints and connections shall be made in accordance with the applicable provisions of Chapter 30. Condensate

waste and drain line size shall be not less than 3/4-inch (19 mm) nominal diameter from the drain pan connection to the place of condensate disposal. Where the drainpipes from more than one unit are manifolded together for condensate drainage, the pipe or tubing shall be sized in accordance with an approved method.

M1411.9.3 Drain line maintenance. Condensate drain lines shall be configured to permit the clearing of blockages and performance of maintenance without requiring the drain line to be cut.

M1411.9.4 Appliances, equipment and insulation in pans. Where appliances, equipment or insulation are subject to water damage when auxiliary drain pans fill, those portions of the appliances, equipment and insulation shall be installed above the flood level rim of the pan. Supports located inside of the pan to support the appliance or equipment shall be water resistant and approved.

M1411.10 Condensate pumps. Condensate pumps located in uninhabitable spaces, such as attics and crawl spaces, shall be connected to the appliance or equipment served such that when the pump fails, the appliance or equipment will be prevented from operating. Pumps shall be installed in accordance with the manufacturer's instructions.

M1411.11 Auxiliary drain pan. Category IV condensing appliances shall have an auxiliary drain pan where damage to any building component will occur as a result of stoppage in the condensate drainage system. These pans shall be installed in accordance with the applicable provisions of Section M1411.3. Exception: Fuel-fired appliances that automatically shut down operation in the event of a stoppage in the condensate drainage system.

M1411.12 Insulation of refrigerant piping. Piping and fittings for refrigerant vapor (suction) lines shall be insulated with insulation having a thermal resistivity of not less than R-3 and having external surface permeance not exceeding 0.05 perm [2.87 ng/(s × m2× Pa)] when tested in accordance with ASTM E96.

M1411.12.1 Refrigerant line insulation protection. Refrigerant piping insulation shall be protected in accordance with Section N1103.4.1.

M1411.13 Location and protection of refrigerant piping. Refrigerant piping installed within 1 1/2 inches (38 mm) of the underside of roof decks shall be protected from damage caused by nails and other fasteners.

M1411.14 Support of refrigerant piping. Refrigerant piping and tubing shall be securely fastened to a permanent support within 6 feet (1829 mm) of the condensing unit.

M1411.15 Locking access port caps. Refrigerant circuit access ports located outdoors shall be fitted with locking-type tamper-resistant caps or shall be otherwise secured to prevent unauthorized access.

(SECTION M1412 ABSORPTION COOLING EQUIPMENT)

M1412.1 Listed equipment. Absorption systems shall be installed in accordance with the manufacturer's instructions. Absorption equipment shall [comply]be listed and labeled in accordance with UL 1995 or UL/CSA/ANCE 60335-2-40.

(CHAPTER 15 EXHAUST SYSTEMS)

(SECTION M1502 CLOTHES DRYER EXHAUST)

M1502.4.2 Duct installation. Exhaust ducts shall be supported at intervals not to exceed 12 feet (3658 mm) and shall be secured in place. The insert end of the duct shall extend into the adjoining duct or fitting in the direction of airflow. Exhaust duct joints shall be sealed in accordance with Section M1601.4.1. Ducts shall not be joined with fasteners that protrude more than 1/8 inch (3.2 mm) into the inside of the duct. Where dryer exhaust ducts are enclosed in wall or ceiling cavities, such cavities shall allow the installation of the duct without deformation

(SECTION M1503 DOMESTIC COOKING EXHAUST EQUIPMENT)

M1503.6 Makeup air required. Where one or more gas, liquid or solid fuel-burning appliance that is neither direct-vent nor uses a mechanical draft venting system is located within a dwelling unit's air barrier, each exhaust system capable of exhausting in excess of 600 cubic feet per minute ($0.285 m^3/s$) shall be mechanically or passively provided with makeup air at a rate approximately equal to the exhaust air rate. Such makeup air systems shall be equipped with not fewer than one damper complying with Section M1503.6.2.

Exception: Makeup air is not required for exhaust systems installed for the exclusive purpose of space cooling and intended to be operated only when windows or other air inlets are open.

(CHAPTER 16 DUCT SYSTEMS)

(SECTION M1601 DUCT CONSTRUCTION)

M1601.1.1 Above-ground duct systems. Above-ground *duct systems* shall conform to the following:

1. *Equipment* connected to *duct systems* shall be designed to limit discharge air temperature to not greater than 250ºF (121ºC).

2. Factory-made ducts shall be *listed* in accordance with UL 181 and installed in accordance with the manufacturer's instructions.

3. Fibrous glass duct construction shall conform to the SMACNA *Fibrous Glass Duct Construction Standards* or NAIMA *Fibrous Glass Duct Construction Standards*.

4. Field-fabricated and shop-fabricated metal and flexible duct constructions shall conform to the SMACNA *HVAC Duct Construction Standards – Metal and Flexible* except as allowed by Table M1601.1.1. Galvanized steel shall conform to ASTM A 653.

5. The use of gypsum products to construct return air ducts or plenums is permitted, provided that the air temperature does not exceed 125ºF (52ºC) and exposed surfaces are not subject to condensation.

6. *Duct systems* shall be constructed of materials having a flame spread index of not greater than 200.

7. Stud wall cavities and the spaces between solid floor joists to be used as non-ducted air plenums shall comply with the following conditions:

7.1 These cavities or spaces shall not be used as a plenum for air supply.

7.2 These cavities or spaces shall not be a part of required fire-resistance-rated assembly.

7.3 Stud wall cavities shall not convey air from more than one floor level.

7.4 Stud wall cavities and joist-space plenums shall be isolated from adjacent concealed spaces by tight-fitting fireblocking in accordance with Section R302.11. Fire-blocking materials used for isolation shall comply with Section R302.11.1.

7.5 Stud wall cavities in the outside walls of building envelope assemblies shall not be utilized as air plenums.

7.6 Building cavities used as plenums shall be sealed.

8. Volume dampers, equipment and other means of supply, return and exhaust air adjustment used in system balancing may be provided with access.

M1601.4.1 Joints, seams and connections. Joints of duct systems shall be made substantially airtight in an unconditioned area by means of tapes, mastics, liquid sealants, gasketing or other approved closure systems. Closure systems used with rigid fibrous glass ducts shall comply with UL 181A and shall be marked 181A-P for pressure-sensitive tape, 181A-M for mastic or 181A-H for heat-sensitive tape. Closure systems used with flexible air ducts and flexible air connectors shall comply with UL 181B and shall be marked 181B-FX for pressure-sensitive tape or 181B-M for mastic. Duct connections to flanges of air distribution system equipment or sheet metal fittings shall be mechanically fastened. Mechanical fasteners for use with flexible nonmetallic air ducts shall comply with UL 181B and shall be marked 181B-C. Crimp joints for round metal ducts shall have a contact lap of at least 1 inch and shall be mechanically fastened with at least three sheet metal screws or rivets equally spaced around the joint. Closure systems used to seal metal ductwork shall be installed in accordance with the manufacturer's installation instructions.

Exceptions:

1. Spray polyurethane foam shall be permitted to be applied without additional joint seals.

2. Where a duct connection is made that is partially without access, three screws or rivets shall be equally spaced on the exposed portion of the joint so as to prevent a hinge effect.

3. Continuously welded and locking-type longitudinal joints and seams in ducts operating at static pressure less than 2 inches of water column (500 Pa) pressure classification shall not require additional closure systems.

(SECTION M1602 RETURN AIR)

M1602.2 Return air openings. Return air openings for heating, ventilation and air conditioning systems shall comply with all of the following:

1. Openings shall not be located less than 10 feet (3048 mm) measured in any direction from an open combustion chamber or draft hood of another appliance located in the same room or space.

2. The amount of return air taken from any room or space shall be not greater than the flow rate of supply air delivered to such room or space.

3. Return and transfer openings shall be sized in accordance with the appliance or equipment manufacturers' installation instructions, Manual D or the design of the registered design professional.

4. Return air shall not be taken from a closet, bathroom, toilet room, kitchen, garage, mechanical room, boiler room, furnace room or unconditioned attic.

Exceptions:

1. Taking return air from a kitchen is not prohibited where such return air openings serve the kitchen only and are located not less than 10 feet (3048 mm) from the cooking appliances.

2. Dedicated forced-air systems serving only the garage shall not be prohibited from obtaining return air from the garage.

3. Closest of the walk-in type complying with the requirements of section R304, and where no chimney, vent or appliance is located within.

4. For other than dedicated HVAC systems, return air shall not be taken from indoor swimming pool enclosures and associated deck areas except where the air in such spaces is dehumidified.

5. Taking return air from an unconditioned crawl space shall not be accomplished through a direct connection to the return side of a forced-air furnace. Transfer openings in the crawl space enclosure shall not be prohibited.

6. Return air from one dwelling unit shall not be discharged into another dwelling unit.

(CHAPTER 20 BOILERS AND WATER HEATERS)
(SECTION M2006 POOL HEATERS)

M2006.1 General. Pool and spa heaters shall be installed in accordance with the manufacturer's installation instructions. Oil-fired pool heaters shall [comply]be listed and labeled in accordance with UL 726. Electric pool and spa heaters shall [comply]be listed and labeled in accordance with UL 1261. Pool and spa heat pump water heaters shall be listed and labeled in accordance with UL 1995, or UL/CSA/ANCE 60335-2-40.

Exception: Portable residential spas and portable residential exercise spas shall be listed and labeled in accordance with UL 1563 or CSA C22.2 No. 218.1.

(CHAPTER 21 HYDRONIC PIPING)

(SECTION M2101 HYDRONIC PIPING SYSTEMS INSTALLATION)

M2101.4 Pipe penetrations. Openings through concrete or masonry building elements shall be sleeved and/or sealed in accordance with Section P2606.1.

M2105.19 Pipe penetrations. Openings for pipe penetrations in walls, floors and ceilings shall be larger than the penetrating pipe. The annular space surrounding pipe penetrations shall be protected in accordance with Section P2606.1.

M2101.26 Pipe penetrations. Openings for pipe penetrations in walls, floors and ceilings shall be larger than the penetrating pipe. The annular space surrounding pipe penetrations shall be protected in accordance with Section P2606.1.

(SECTION M2105 GROUND-SOURCE HEAT-PUMP SYSTEM LOOP PIPING)

M2105.1 Plastic ground-source heat-pump loop piping. Plastic piping and tubing material used in water-based ground-source heat-pump ground-loop systems shall conform to the standards specified in this section when outside the scope of Missouri Department of Natural Resources (10 CSR 23).

(CHAPTER 24 FUEL GAS)

(SECTION G2408 (305) INSTALLATION)

G2408.4 (305.7) Clearances from grade. Equipment and appliances installed at grade level shall be supported on a level concrete slab or other approved material extending not less than 2 inches (50.8 mm) above adjoining grade or shall be suspended not less than 6 inches (152 mm) above adjoining grade. Such supports shall be installed in accordance with the manufacturer's installation instructions.

(SECTION G2442 (618) FORCED-AIR WARM-AIR FURNACES)

G2442.3 (618.3) Prohibited sources. Outdoor or return air for forced-air heating and cooling systems shall not be taken from the following locations:

1. Closer than 10 feet (3048 mm) from an appliance vent outlet, a vent opening from a plumbing drainage system or the discharge outlet of an exhaust fan, unless the outlet is 3 feet (914 mm) above the outside air inlet.

2. Where there is the presence of objectionable odors, fumes or flammable vapors; or where located less than 10 feet (3048 mm) above the surface of any abutting public way or driveway; or where located at grade level by a sidewalk, street, alley or driveway.

3. A hazardous or insanitary location or a refrigeration machinery room as identified in the International Mechanical Code.

4. A room or space, the volume of which is less than 25 percent of the entire volume served by such system. Where connected by a permanent opening having an area sized in accordance with this code, adjoining rooms or spaces shall be considered as a single room or space for the purpose of determining the volume of such rooms or spaces.

> Exception: The minimum volume requirement shall not apply where the amount of return air taken from a room or space is less than or equal to the amount of supply air delivered to such room or space.
>
> 1. A room or space containing an appliance where such a room or space serves as the sole source of return air.
>
> Exception: This shall not apply where:
>
> 1. The appliance is a direct-vent appliance or an appliance not requiring a vent in accordance with Section G2425.8.
>
> 2. The room or space complies with the following requirements:
>
> > a. The return air shall be taken from a room or space having a volume exceeding 1 cubic foot for each 10 Btu/h (9.6L/W) of combined input rating of all fuel-burning appliances therein.
> >
> > b. The volume of supply air discharged back into the same space shall be approximately equal to the volume of return air taken from the space.
> >
> > c. Return-air inlets shall not be located within 10 feet (3048 mm) of a draft hood in the same room or space or the combustion chamber of any atmospheric burner appliance in the same room or space.
>
> 3. Rooms or spaces containing solid fuel-burning appliances, provided that return-air inlets are located not less than 10 feet (3048 mm) from the firebox of such appliances.
>
> 4. A closet, bathroom, toilet room, kitchen, garage, boiler room, furnace room or unconditioned attic.

Exceptions:

1. Where return air intakes are located not less than 10 feet (3048 mm) from cooking appliances and serve only the kitchen area, taking return air from a kitchen area shall not be prohibited.

2. Dedicated forced air systems serving only a garage shall not be prohibited from obtaining return air from the garage.

3. Where a closet 64 square feet or greater in size is provided with a supply register, taking return air from the closet shall not be prohibited.

4. A crawl space by means of direct connection to the return side of a forced-air system. Transfer openings in the crawl space enclosure shall not be prohibited.

(CHAPTER 26 GENERAL PLUMBING REQUIREMENTS)

(SECTION P2602 INDIVIDUAL WATER SUPPLY AND SEWAGE DISPOSAL)

P2602.1 General. The water-distribution system of any building or premises where plumbing fixtures are installed shall be connected to a public water supply, if available. A public water supply shall be considered available when the nearest property line is located within two hundred (200) feet of a public water main. Where a public water-supply system is not available, or connection to the supply is not feasible, an individual water supply shall be provided. Individual water supplies shall be constructed and installed in accordance with the applicable state and local laws. Where such laws do not address the requirements set forth in NGWA-01, individual water supplies shall comply with NGWA-01 for those requirements not addressed by state and local laws.

Sanitary drainage piping from plumbing fixtures in buildings and sanitary drainage piping systems from premises shall be connected to a public sewer, if available. A public sewer shall be considered available when the nearest property line is located within two hundred (200) feet of a public sewer. Where a public sewer is not available, the sanitary drainage piping and systems shall be connected to a private sewage disposal system in compliance with state or local requirements.

Exception: Sanitary drainage piping and systems that convey only the discharge from bathtubs, showers, lavatories, clothes washers and laundry trays shall not be required to connect to a public sewer or to a private sewage disposal system provided that the piping or systems are connected to a system in accordance with Section P2910 or P2911.

(SECTION P2603 STRUCTURAL AND PIPING PROTECTION)

P2603.5.1 Sewer depth. Building sewers that connect to private sewage disposal systems shall be a not less than 18 inches (453 mm) below finished grade at the point of septic tank connection. Building sewers shall be not less than 30 inches (762 mm) below grade.

(CHAPTER 31 VENTS)

(SECTION P3103 VENT TERMINALS)

P3103.1.1 Roof extension. Open vent pipes that extend through a roof that do not meet the conditions of Section P3103.1.2 or P3103.1.3 shall terminate not less than 12 inches (304 mm) above the roof or 6 inches (150 mm) above the anticipated snow accumulation, whichever is greater.

(CHAPTER 36 SERVICES)

(SECTION E3601 GENERAL SERVICES)

E3601.8 Emergency disconnects. DELETED.

(CHAPTER 39 POWER AND LIGHTING DISTRIBUTION)

(SECTION E3901 RECEPTACLE OUTLETS)

E3901.4.2 Island and peninsular countertops and work surfaces. Receptacle outlets, if installed to serve an island or peninsular countertop or work surface, shall be installed in accordance with Section E3901.43. If a receptacle outlet is not provided to serve an island or peninsular countertop or work surface, provisions shall be provided at the island or peninsula for future addition of a receptable outlet to serve the island or peninsular countertop or work surface

E3901.4.3 Receptacle outlet location. Receptacle outlets rendered not readily accessible by appliances fastened in place, appliance garages, sinks, or range tops as covered in the exception to Section E3901.4.1, or appliances occupying assigned spaces shall not be considered as these required outlets. Required receptacle outlets shall be located in one or more of the following:

1. On or above, but not more than 20 inches (508 mm) above, the countertop or work surface.
2. In a countertop using [R]receptacle outlet assemblies listed for the use in countertops or work surfaces shall be permitted to be installed in countertops or work surfaces.
3. In a work surface using receptacle outlet assemblies listed for use in work surfaces or listed for use in countertops. [210.52(C)(3)].

(SECTION E3902 GROUND-FAULT AND ARC-FAULT CIRCUIT-INTERRUPTER PROTECTION)

E3902.2 Garage and accessory building receptacles. 125-volt through 250-volt receptacles installed in garages and grade-level portions of unfinished accessory buildings used for storage or work areas and supplied by single-phase branch circuits rated 150 volts or less to ground shall have ground-fault circuit-interrupter protection for personnel. [210.8(A)(2)]

Exception: Garage door opener receptacles not installed in a readily accessible location

E3902.20 Arc-fault circuit-interrupter protection. Branch circuits that supply 120-volt, single phase, 15- and 20-ampere outlets installed in ~~kitchens,~~ family rooms, dining rooms, living rooms, parlors, libraries,

dens, bedrooms, sunrooms, recreation rooms, closets, hallways, shall be protected by any of following: [210.12(A)].

1. A listed combination-type arc-fault circuit interrupter, installed to provide protection of the entire branch circuit. [210.12(A)(1)]

2. A listed branch/feeder-type AFCI installed at the origin of the branch-circuit in combination with a listed outlet branch-circuit type arc-fault circuit interrupter installed at the first outlet box on the branch circuit. The first outlet box in the branch circuit shall be marked to indicate that it is the first outlet of the circuit. [210.12(A)(2)]

3. A listed supplemental arc-protection circuit breaker installed at the origin of the branch circuit in combination with a listed outlet branch-circuit type arc-fault circuit-interrupter installed at the first outlet box on the branch circuit where all of the following conditions are met:

3.1 The branch-circuit wiring shall be continuous from the branch-circuit overcurrent device to the outlet branch-circuit arc-fault circuit interrupter.

3.2 The maximum length of the branch-circuit wiring from the branch-circuit overcurrent device to the first outlet shall not exceed 50 feet (15.2 m) for 14 AWG conductors and 70 feet (21.3 m) for 12 AWG conductors.3.3 The first outlet box in the branch circuit shall be marked to indicate that it is the first outlet on the circuit. [210.12(A)(3)].

4. A listed outlet branch-circuit-type arc-fault circuit interrupter installed at the first outlet on the branch circuit in combination with a listed branch-circuit overcurrent protective device where all of the following conditions are met:

4.1 The branch-circuit wiring shall be continuous from the branch-circuit overcurrent device to the outlet branch-circuit arc-fault circuit interrupter.

4.2 The maximum length of the branch-circuit wiring from the branch-circuit overcurrent device to the fist outlet shall not exceed 50 feet (15.2 m) for 14 AWG conductors and 70 feet (21.3 m) for 12 AWG conductors.

4.3 The first outlet box in the branch circuit shall be marked to indicate that it is the first outlet on the circuit.

4.4 The combination of the branch-circuit overcurrent device and outlet branch-circuit AFCI shall be identified as meeting the requirements for a system combination-type AFCI and shall be listed as such. [210.12(A)(4)]

5. Where metal raceways, metal wireways, metal auxiliary gutters or Type MC or Type AC cable meeting the applicable requirements of Section E3908.9 with metal boxes, metal conduit bodies and metal enclosures are installed for the portion of the branch circuit between the branch-circuit overcurrent device and the first outlet, a listed outlet branch-circuit type AFCI

installed at the first outlet shall be considered as providing protection for the remaining portion of the branch circuit. [210.12(A)(5)]

6. Where a listed metal or nonmetallic conduit or tubing or Type MC cable is encased in not less than 2 inches (50.8 mm) of concrete for the portion of the branch circuit between the branch-circuit overcurrent device and the first outlet, a listed outlet branch-circuit type AFCI installed at the first outlet shall be considered as providing protection for the remaining portion of the branch circuit. [210.12(A)(6)]

Exception: AFCI protection shall not be required for an individual branch circuit supplying a fire alarm system where the branch circuit is installed in a metal raceway, metal auxiliary gutter, steel-armored cable, Type MC or Type AC, meeting the requirements of Section E3908.9, with metal boxes, conduit bodies and enclosures.

E3902.21 Arc-fault circuit interrupter protection for branch circuit extensions or modifications. Where branch-circuit wiring is modified, replaced, or extended in any of the areas specified in Section E3902.17, the branch circuit shall be protected by one of the following:

1. A combination-type AFCI located at the origin of the branch circuit.

2. An outlet branch-circuit type AFCI located at the first receptacle outlet of the existing branch circuit. [210.12(B)]

Exception: AFCI protection shall not be required where the extension of the existing branch circuit conductors is not more than ~~6 feet (1.8 m)~~ 30 feet (9.5 m) in length and does not include any additional outlets or devices other than splicing devices. This measurement shall not include the conductors inside an enclosure, cabinet or junction box. [210.12(B) Exception]

(CHAPTER 40 DEVICES AND LUMINAIRES)

(SECTION E4002 RECEPTACLES)

E4002.14 Tamper resistant receptacles. DELETED.

(APPENDIX AE MANUFACTURED HOUSING USED AS DWELLINGS)

(SECTION AE101 SCOPE)

AE101.1 General. These provisions shall be applicable only to a manufactured home used as a single dwelling unit installed on any lot~~s~~ and shall apply to the following:

1. Construction, alteration and repair of any foundation system that is necessary to provide for the installation of a manufactured home unit.

2. Construction, installation, addition, alteration, repair or maintenance of the building service equipment that is necessary for connecting manufactured homes to water, fuel, or power supplies and sewage systems.

3. Alterations, additions or repairs to existing manufactured homes. The construction, alteration, moving, demolition, repair and use of accessory buildings and structures, and their building service equipment, shall comply with the requirements of the codes adopted by this jurisdiction.

These provisions shall not be applicable to the design and construction of manufactured homes and shall not be deemed to authorize either modifications or additions to manufactured homes where otherwise prohibited.

(SECTION AE107 FEES)

AE107.1 Permit fees. Fees shall be in accordance with Section R108 of the International Residential Code as adopted by the City of Flint Hill, Missouri.

AE107.2 Plan review fees. DELETED.

AE107.3 Other provisions. DELETED.

AE107.3.1 Expiration of plan review. DELETED.

AE107.3.2 Investigation fees—work without a permit. DELETED.

AE107.3.2.1 Investigation. DELETED.

AE107.3.2.2 Fee. DELETED.

AE107.3.3 Fee refunds. DELETED.

AE107.3.3.1 Permit fee erroneously paid or collected. DELETED.

AE107.3.3.2 Permit fee paid when no work done. DELETED.

AE107.3.3.3 Plan review fee. DELETED.

SECTION 7. 2021 INTERNATIONAL EXISTING BUILDING CODE

The City hereby adopts by this reference the 2021 International Existing Building Code with the following amendments by additions, insertions, deletions and changes to read as follows:

(CHAPTER 1 SCOPE AND ADMINISTRATION)

(SECTION 101 SCOPE AND GENERAL REQUIREMENTS)

101.1 Title. These regulations shall be known as the Existing Building Code of the City of Flint Hill, Missouri, hereinafter referred to as "this code."

(SECTION 103 CODE COMPLIANCE AGENCY)

103.1 Creation of enforcement agency. The City Building Department is hereby created, and the official in charge thereof shall be known as the Building Inspector. The function of the position shall be the implementation, administration and enforcement of the provisions of this code.

103.2 Appointment. The Building Inspector is appointed as provided by Ordinance.

(SECTION 105 PERMITS)

105.2 Work exempt from permits. Exemptions from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. Permits shall not be required for the following:

Building:

1. Sidewalks and driveways not more than 30 inches (762 mm) above grade and not over any basement or story below and that are not part of an accessible route.

2. Painting, papering, tiling, carpeting, cabinets, counter tops, and similar finish work.

3. Temporary motion picture, television, and theater stage sets and scenery.

4. Shade cloth structures constructed for nursery or agricultural purposes, and not including service systems.

5. Window awnings supported by an exterior wall of Group R-3 or Group U occupancies.

6. Nonfixed and movable cases, counters, and partitions not over 5 feet 9 inches (1753 mm) in height.

Electrical:

Repairs and maintenance: Minor repair work, including the replacement of lamps or the connection of approved portable electrical equipment to approved permanently installed receptacles.

Radio and television transmitting stations: The provisions of this code shall not apply to electrical equipment used for radio and television transmissions, but do apply to equipment and wiring for power supply, the installations of towers, and antennas.

Temporary testing systems: A permit shall not be required for the installation of any temporary system required for the testing or servicing of electrical equipment or apparatus.

Gas:

1. Portable heating appliance.

2. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.

Mechanical:

1. Portable heating appliance.

2. Portable ventilation equipment.

3. Portable cooling unit.

4. Steam, hot, or chilled water piping within any heating or cooling equipment regulated by this code.

5. Replacement of any part that does not alter its approval or make it unsafe.

6. Portable evaporative cooler.

7. Self-contained refrigeration system containing 10 pounds (4.54 kg) or less of refrigerant and actuated by motors of 1 horsepower (746 W) or less.

Plumbing:

1. The stopping of leaks in drains, water, soil, waste, or vent pipe; provided, however, that if any concealed trap, drainpipe, water, soil, waste, or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered as new work, and a permit shall be obtained and inspection made as provided in this code.

2. The clearing of stoppages or the repairing of leaks in pipes, valves, or fixtures, and the removal and reinstallation of water closets, provided such repairs do not involve or require the replacement or rearrangement of valves, pipes, or fixtures.

3. Fixture replacement with similar fixtures where plumbing connections are not relocated, and new fittings and valves are not installed.

105.5.1 Reinstatement. A permit that has expired may be reinstated where approved by the Building Inspector. The request for reinstatement shall be in writing and justifiable caused demonstrated.

(SECTION 106 CONSTRUCTION DOCUMENTS)

106.1 General. Submittal documents consisting of construction documents, statement of special inspections, geotechnical report and other data shall be submitted as required by the Building Inspector, with each permit application. The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist, the Building Inspector is authorized to require additional construction documents to be prepared by a registered design professional.

> Exception: The Building Inspector is authorized to waive the submission of construction documents and other data not required to be prepared by a registered design professional if it is found that the nature of the work applied for is such that review of construction documents is not necessary to obtain compliance with this code.

106.1.2 Electronic submission. Where design documents including, but not limited to, plot plans, site plans, design drawings, specifications, etc., are originally created electronically, the Building Inspector is authorized to require electronic submittal of documents in a portable document format (PDF) or similar format for review. Where design documents were originally prepared on paper and are submitted in a paper form, the Building Inspector is authorized to charge a fee for converting those drawings to PDF equal to the cost incurred by City recreating the document and not to exceed more than one (1) dollar per page.

> Exception: Where submittal documents were originally prepared by hand and are 11 inches by 17 inches or less, the fee for document conversion shall not be charged.

(SECTION 112 MEANS OF APPEALS)

112.1 General. For the purposes of this code, all appeals shall be in accordance with the procedure established for the Building Code of the City of Flint Hill, Missouri, as provided in Section 5 of this Ordinance, at Section 113.1 through 113.5.

112.2 Limitations on authority. DELETED.

112.3 Qualifications. DELETED.

112.4 Administration. DELETED.

(SECTION 113 VIOLATIONS)

113.4 Violation penalties. Any person who violates a provision of this code or fails to comply with any of the requirements thereof or who repairs or alters or changes the occupancy of a building or structure in violation of the approved construction documents or directive of the Building Inspector, or of a permit or certificate issued under the provisions of this code shall be guilty of a misdemeanor and upon conviction thereof shall be punishable by a fine of not more than five hundred ($500.00) dollars, and each day's continuance of a violation shall be deemed a separate offense.

(SECTION 114 STOP WORK ORDER)

114.2 Issuance. The stop work order shall be in writing and shall be given to the owner of the property involved, the owner's authorized agent or the person performing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order and the conditions under which the cited work will be permitted to resume. Any person served with a stop work order shall pay an administrative penalty of up to two hundred fifty dollars ($250.00).

(SECTION 115 UNSAFE STRUCTURES AND EQUIPMENT)

115.4 Method of service. Notice shall be served as provided for in Section 500.520, Ordinances of St. Charles County, Missouri.

SECTION 8. 2021 INTERNATIONAL MECHANICAL CODE

(CHAPTER 1 SCOPE AND ADMINISTRATION)
(SECTION 101 SCOPE AND GENERAL REQUIREMENTS)

101.1 Title. These regulations shall be known as the Mechanical Code of the City of Flint Hill, Missouri, hereinafter referred to as "this code."

(SECTION 103 CODE COMPLIANCE AGENCY)

103.1 Creation of enforcement agency. The City Building Department is hereby created, and the official in charge thereof shall be known as the Building Inspector. The function of the position shall be the implementation, administration and enforcement of the provisions of this code.

103.2 Appointment. The Building Inspector is appointed as provided by ordinance.

(SECTION 106 PERMITS)

106.4.3 Expiration. Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 180 days after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced.

106.4.3.1 Reinstatement. A permit that has expired may be reinstated where approved by the Building Inspector. The request for reinstatement shall be in writing and justifiable caused demonstrated.

106.4.4 Extensions. The Building Inspector is authorized to grant, in writing, one or more extensions of time for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

(SECTION 107 CONSTRUCTION DOCUMENTS)

107.1 General. Construction documents, engineering calculations, diagrams and other data shall be as required by the Building Inspector , with each application for a permit. The Building Inspector shall require construction documents, computations and specifications to be prepared and designed by a registered design professional where required by state law. Where special conditions exist, the Building

Inspector is authorized to require additional construction documents to be prepared by a registered design professional. Construction documents shall be drawn to scale and shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that the work conforms to the provisions of this code. Construction documents for buildings more than two stories in height shall indicate where penetrations will be made for mechanical systems, and the materials and methods for maintaining required structural safety, fire resistance rating and fireblocking.

> Exception: The Building Inspector shall have the authority to waive the submission of construction documents, calculations or other data if the nature of the work applied for is such that reviewing of construction documents is not necessary to determine compliance with this code.

107.1.2 Electronic submission. Where design documents including, but not limited to, plot plans, site plans, design drawings, specifications, etc., are originally created electronically, the Building Inspector is authorized to require electronic submittal of documents in a portable document format (PDF) or similar format for review. Where design documents were originally prepared on paper and are submitted in a paper form, the Building Inspector is authorized to charge a fee for converting those drawings to PDF equal to the cost incurred by City recreating the document and not to exceed more than one (1) dollar per page.

> Exception: Where submittal documents were originally prepared by hand and are 11 inches by 17 inches or less, the fee for document conversion shall not be charged.

(SECTION 113 MEANS OF APPEALS)

113.1 General. For the purposes of this code, all appeals shall be in accordance with the procedure established for the Building Code of Flint Hill, Missouri, as provided in Section 5 of this Ordinance, at Section 113.1 through 113.5.

113.2 Limitations on authority. DELETED.

113.3 Qualifications. DELETED.

113.4 Administration. DELETED.

(SECTION 114 BOARD OF APPEALS)

114.1. DELETED.

(SECTION 115 VIOLATIONS)

115.4 Violation penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter or repair mechanical work in violation of the approved construction documents or directive of the Building Inspector, or a permit or certificate issued under the provisions of this code, shall be guilty of a misdemeanor and upon conviction thereof

shall be punishable by a fine of not more than five hundred ($500.00) dollars. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

(SECTION 116 STOP WORK ORDER)

116.2 Issuance. The stop work order shall be in writing and shall be given to the owner of the property involved, the owner's authorized agent or the person performing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order and the conditions under which the cited work will be permitted to resume. Any person served with a stop work order shall pay an administrative penalty of up to two hundred fifty dollars ($250.00).

(CHAPTER 11 REFRIGERATION)
(SECTION 1102 SYSTEM REQUIREMENTS)

1101.2.1 Group A2L, A2, A3 and B1 high probability equipment. High-probability equipment using Group A2L, A2, A3, or B1 refrigerant shall comply with UL 484, UL/CSA 60335-2-40, or UL/CSA 60335-2-89.

(SECTION 1103 REFRIGERATION SYSTEM CLASSIFICATIONS)
TABLE 1103.1
REFRIGERANT CLASSIFICATION, AMOUNT AND OEL

CHEMICAL REFRIGERANT	*FORMULA*	*CHEMICAL NAME OF BLEND*	*REFRIGERANT CLASSIFICATION*	*AMOUNT OF REFRIGERANT PER OCCUPIED SP*					
				RCL			*LFL*		
				Pounds per 1,000 cubic feet lb/M Cf	*ppm*	*g/m³*	*lb/MCf*	*ppm*	*g/m³*
R-11[dc]	*CCl3F*	*trichlorofluoromethane*	*A1*	*0.39*	*1,100*	*6.2 6.1*			
R-12[dc]	*CCl2F2*	*dichlorodifluoromethan e*	*A1*	*5.6*	*18,000*	*90*			
R-13[dc]	CClF3	chlorotrifluoromethane	A1	—	—	—			
R-13B1[dc]	CBrF3	bromotrifluoromethane	A1	—	—	—			
R-13l1	CF3l	Trifluoroiodomehane	A1	1.0	2,000	16			
R-14	CF4	tetrafluoromethane (carbon tetrafluoride)	A1	25	110,000	400			
R-22	CHClF2	chlorodifluoromethane	A1	13	59,000	210			
R-23	CHF3	trifluoromethane (fluoroform)	A1	7.3	41,000	120			

R-30	CH2Cl2	dichloromethane (methylene chloride)	B1	—	—	—			
R-31	CH2ClF	chlorodifluoromethane	—	—	—	—			
R-32	CH2F2	difluoromethane (methylene fluoride)	A2[c]A2L	4.8	36,000	77	19.1	144,000	306
R-40	CH3Cl	chloromethane (methyl chloride)	B2	—	—	—			
R-41	CH3F	fluoromethane (methyl fluoride)	—	—	—	—			
R-50	CH4	methane	A3	—	—	—		50,000	
R-113[dc]	CCl2FCCl F2	1,1,2-trichloro-1,2,2-trifluoroethane	A1	1.2	2,600	20			
R-114[dc]	CClF2CCl F2	1,2-dichloro-1,1,2,2-tetrafluoroethane	A1	8.7	20,000	140			
R-115	CClF2CF3	chloropentafluoroethane	A1	47	120,000	760			
R-116	CF3CF3	hexafluoroethane	A1	34	97,000	550			
R-123	CHCl2CF3	2,2-dichloro-1,1,1-trifluoroethane	B1	3.5	9,100	57			
R-124	CHClFCF3	2-chloro-1,1,1,2-tetrafluoroethane	A1	3.5	10,000	56			
R-125	CHF2CF3	pentafluoroethane	A1	23	75,000	370			
R-134a	CH2FCF3	1,1,1,2-tetrafluoroethane	A1	13	50,000	210			
R-141b	CH3CCl2F	1,1-dichloro-1-fluoroethane	—	0.78	2,600	12	17.8	60,000	287
R-142b	CH3CClF2	1-chloro-1, 1-difluoroethane	A2	5.1	20,000	83 82	20.4	80,000	329
R-143a	CH3CF3	1,1,1-trifluoroethane	A2[c]A2L	4.5 4.4	21,000	70	17.5	82,000	282
R-152a	CH3CHF2	1,1-difluoroethane	A2	2.0	12,000	32	8.1	48,000	130
R-170	CH3CH3	ethane	A3	0.54	7,000	8.7 8.6	2.4	31,000	38
R-E170	CH3OCH3	Methoxymethane (dimethyl ether)	A3	1.0	8,500	16	4.0	34,000	64
R-218	CF3CF2CF	octafluoropropane	A1	43	90,000	690			
R-227ea	CF3CHFC F3	1,1,1,2,3,3,3-heptafluoropropane	A1	36	84,000	580			
R-236fa	CF3CH2C F3	1,1,1,3,3,3-hexafluoropropane	A1	21	55,000	340			

R-245fa	CHF2CH2 CF3	1,1,1,3,3-pentafluoropropane	B1	12	34,000	190			
R-290	CH3CH2C H3	propane	A3	0.56 0.59	5,300	9.5	2.4	21,000	38
R-C318	-(CF2)4-	octafluorocyclobutane	A1	41	80,000	660 650			
R-400[dc]	zeotrope	R-12/114 (50.0/50.0)	A1	10	28,000	160			
R-400[dc]	zeotrope	R-12/114 (60.0/40.0)	A1	11	30,000	170			
R-401A	zeotrope	R-22/152a/124 (53.0/13.0/34.0)	A1	6.6	27,000	110			
R-401B	zeotrope	R-22/152a/124 (61.0/11.0/28.0)	A1	7.2	30,000	120			
R-401C	zeotrope	R-22/152a/124 (33.0/15.0/52.0)	A1	5.2	20,000	84			
R-402A	zeotrope	R-125/290/22 (60.0/2.0/38.0)	A1	17	66,000	270			
R-402B	zeotrope	R-125/290/22 (38.0/2.0/60.0)	A1	15	63,000	240			
R-403A	zeotrope	R-290/22/218 (5.0/75.0/20.0)	A2	7.6	33,000	120			
R-403B	zeotrope	R-290/22/218 (5.0/56.0/39.0)	A1	18	70,000 68,000	290			
R-404A	zeotrope	R-125/143a/134a (44.0/52.0/4.0)	A1	31	130,000	500			
R-405A	zeotrope	R-22/152a/142b/C318 (45.0/7.0/5.5/42.5)	—	16	57,000	260			
R-406A	zeotrope	R-22/600a/142b (55.0/4.0/41.0)	A2	4.7	21,000	25 75	18.8	82,000	301.9
R-407A	zeotrope	R-32/125/134a (20.0/40.0/40.0)	A1	19	83,000	300			
R-407B	zeotrope	R-32/125/134a (10.0/70.0/20.0)	A1	21	79,000	330			
R-407C	zeotrope	R-32/125/134a (23.0/25.0/52.0)	A1	18	81,000	290			
R-407D	zeotrope	R-32/125/134a (15.0/15.0/70.0)	A1	16	68,000	250			
R-407E	zeotrope	R-32/125/134a (25.0/15.0/60.0)	A1	17	80,000	280			
R-407F	zeotrope	R-32/125/134a (30.0/30.0/40.0)	A1	20	95,000	320			
R-407G	zeotrope	R-32/125/134a (2.5/2.5/95.0)	A1	13	52,000	210			
R-407H	zeotrope	R-32/125/134a (32.5/15.0/52.5)	A1	19	92,000	300			

R-407I	zeotrope	R-32/125/124a (19.5/8.5/72.0)	A1	16	71,000	250			
R-408A	zeotrope	R-125/143a/22 (7.0/46.0/47.0)	A1	21	95,000 94,000	340 330			
R-409A	zeotrope	R-22/124/142b (60.0/25.0/15.0)	A1	7.1	29,000	110			
R-409B	zeotrope	R-22/124/142b (65.0/25.0/10.0)	A1	7.3	30,000	120			
R-410A	zeotrope	R-32/125 (50.0/50.0)	A1	26	140,000	420			
R-410B	zeotrope	R-32/125 (45.0/55.0)	A1	27	140,000	430			
R-411A	zeotrope	R-127/22/152a (1.5/87.5/11.0)	A2	2.9	14,000	46	11.6	55,000	185.6
R-411B	zeotrope	R-1270/22/152a (3.0/94.0/3.0)	A2	2.8	13,000	45	14.8	70,000	238.3
R-412A	zeotrope	R-22/218/142b (70.0/5.0/25.0)	A2	5.1	22,000	82	20.5	87,000	328.6
R-413A	zeotrope	R-218/134a/600a (9.0/88.0/3.0)	A2	5.8	22,000	94 93	23.4	88,000	374.9
R-414A	zeotrope	R-22/124/600a/142b (51.0/28.5/4.0/16.5)	A1	6.4	26,000	100			
R-414B	zeotrope	R-22/124/600a/142b (50.0/39.0/1.5/9.5)	A1	6.0	23,000	95 96			
R-415A	zeotrope	R-22/152a (82.0/18.0)	A2	2.9	14,000	47	11.7	56,000	187.9
R-415B	zeotrope	R-22/152a (25.0/75.0)	A2	2.1	12,000	34	8.4	47,000	135.1
R-416A	zeotrope	R-134a/124/600 (59.0/39.5/1.5)	A1	3.9	14,000	62			
R-417A	zeotrope	R-125/134a/600 (46.6/50.0/3.4)	A1	3.5	13,000	56 55			
R-417B	zeotrope	R-125/134a/600 (79.0/18.3/2.7)	A1	4.3	15,000	70 69			
R-417C	zeotrope	R-125/134a/600 (19.5/78.8/1.7)	A1	5.4	21,000	87			
R-418A	zeotrope	R-290/22/152a (1.5/96.0/2.5)	A2	4.8	22,000	77	19.2	89,000	308.4
R-419A	zeotrope	R-125/134a/E170 (77.0/19.0/4.0)	A2	4.2	15,000	67	16.7	60,000	268.6
R-419B	zeotrope	R-125/134a/E170 (48.5/48.0/3.5)	A2	4.6	17,000	74	18.5	69,000	297.3
R-420A	zeotrope	R-134a/142b (88.0/12.0)	A1	12	45,000	190			
R-421A	zeotrope	R-125/134a (58.0/42.0)	A1	17	61,000	280			
R-421B	zeotrope	R-125/134a (85.0/15.0)	A1	21	69,000	330			
R-422A	zeotrope	R-125/134a/600a (85.1/11.5/3.4)	A1	18	63,000	290			
R-422B	zeotrope	R-125/134a/600a (55.0/42.0/3.0)	A1	16	56,000	250			

R-422C	zeotrope	R-125/134a/600a (82.0/15.0/3.0)	A1	18	62,000	290			
R-422D	zeotrope	R-125/134a/600a (65.1/31.5/3.4)	A1	16	58,000	260			
R-422E	zeotrope	R-125/134a/600a (58.0/39.3/2.7)	A1	16	57,000	260			
R-423A	zeotrope	R-134a/227ea (52.5/47.5)	A1	19	59,000	310 300			
R-424A	zeotrope	R-125/134a/600a/600/601a (50.5/47.0/0.9/1.0/0.6)	A1	6.2	23,000	100			
R-425A	zoetrope	R-32/134a/227ea (18.5/69.5/12.0)	A1	16	72,000	260			
R-426A	zeotrope	R-125/134a/600a/601a (5.1/93.0/1.3/0.6)	A1	5.2	20,000	83			
R-427A	zeotrope	R-32/125/143a/134a (15.0/25.0/10.0/50.0)	A1	18	79,000	290			
R-428A	zeotrope	R-125/143a/290/600a (77.5/20.0/0.6/1.9)	A1	23	83,000 84,000	370			
R-429A	zeotrope	R-E170/152a/600a (60.0/10.0/30.0)	A3	0.81	6,300	13	3.2	25,000	83.8
R-430A	zeotrope	R-152a/600a (76.0/24.0)	A3	1.3	8,000	21	5.2	32,000	44.0
R-431A	zeotrope	R-290/152a (71.0/29.0)	A3	0.69 0.68	5,500	11	2.7	22,000	38.6
R-432A	zeotrope	R-1270/E170 (80.0/20.0)	A3	0.13	1,200	2.1	2.4	22,000	39.2
R-433A	zeotrope	R-1270/290 (30.0/70.0)	A3	0.34	3,100	5.5	2.4	20,000	32.4
R-433B	zeotrope	R-1270/290 (5.0-95.0)	A3	0.51 0.39	4,500 3,500	8.1 6.3	2.0	18,000	32.1
R-433C	zeotrope	R-1270/290 (25.0-75.0)	A3	0.41	3,600 3,700	6.6 6.5	2.0	18,000	83.8
R-434A	zeotrope	R-125/143a/600a (63.2/18.0/16.0/2.8)	A1	20	73,000	320			
R-435A	zeotrope	R-E170/152a (80.0/20.0)	A3	1.1	8,500	17	4.3	34,000	68.2
R-436A	zeotrope	R-290/600a (56.0/44.0)	A3	0.50	4,000	8.1	2.0	16,000	32.3
R-436B	zeotrope	R-290/600a (52.0/48.0)	A3	.051	4,000	8.1	2.0	16,000	32.7
R-436C	zeotrope	R-290/600a (5295.0/5.0)	A3	0.57	5,000	9.1	2.3	20,000	36.5
R-437A	zeotrope	R-125/134a/600/601 (19.5/78.5/1.4/0.6)	A1	5.0 5.1	19,000	82			
R-438A	zeotrope	R-32/125/134a/600/601a (8.5/45.0/44.2/1.7/0.6)	A1	4.9	20,000	79			
R-439A	zeotrope	R-32/125/600a (50.0/47.0/3.0)	A2	4.7	26,000	76	18.9	104,000	303.3
R-440A	zeotrope	R-290/134a/152a (0.6/1.6/97.8)	A2	1.9	12,000	31	7.8	46,000	124.7
R-441A	zeotrope	R-170/290/600a/600 (3.1/54.8/6.0/36.1)	A3	0.39	3,200	6.3	2.0	16,000	31.7

R-442A	zeotrope	R-32/125/134a/152a/227e a (31.0/31.0/30.0/3.0/5.0)	A1	21	100,000	330			
R-443A	zeotrope	R-1270/290/600a (55.0/40.0/5.0)	A3	0.19	1,700	3.1	2.2	20,000	35.6
R-444A	zeotrope	R-32/152a/1234ze(E) (12.0/5.0/83.0)	A2[c]A2L	5.1	21,000	81	19.9	82,000	324.8
R-444B	zeotrope	R-32/152a/1234ze(E) (41.5/10.0/48.5)	A2[c]A2L	4.3	23,000	69	17.3	93,000	277.3
R-445A	zeotrope	R-744/134a/1234ze(E) (6.0/9.0/85.0)	A2[c]A2L	4.2	16,000	67	2.7	63,000	347.4
R-446A	zeotrope	R-32/1234ze(E)/600 (68.0/29.0/3.0)	A2[c]A2L	2.5	16,000	39	13.5	62,000	217.4
R-447A	zeotrope	R-32/125/1234ze(E) (68.0/3.5/28.5)	A2[c]A2L	2.6	16,000	42	18.9	65,000	303.5
R-447B	zeotrope	R-32/125/1234ze(E) (68.0/8.0/24.0)	A2[c]A2L	23 2.6	30,000 16,000	360 42	20.6	121,000	312.7
R-448A	zeotrope	R-32/125/1234yf/134a/1234ze(E) (26.0/26.0/20.0/21.0/7.0)	A1	24	110,000	390			
R-449A	zeotrope	R-32/125/1234yf/134a (24.3/24.7/25.3/25.7)	A1	23	100,000	370			
R-449B	zeotrope	R-32/125/1234yf/134a (25.2/24.3/23.2/27.3)	A1	23	100,000	370			
R-449C	zeotrope	R-32/125/1234yf/134a (20.0/20.0/31.0/29.0)	A1	23	98,000	360			
R-450A	zeotrope	R-134a/1234ze(E) (42.0/58.0)	A1	20	72,000	320			
R-451A	zeotrope	R-1234yf/134a (89.8/10.2)	A2[c]A2L	5.3 5.0	18,000	81	20.3	70,000	326.6
R-451B	zeotrope	R-1234yf/134a (88.8/11.2)	A2[c]A2L	5.3 5.0	18,000	81	20.3	70,000	326.6
R-452A	zeotrope	R-32/125/1234yf (11.0/59.0/30.0)	A1	27	10,000 100,000	440			
R-452B	zeotrope	R-32/125/1234yf (67.0/7.0/26.0)	A2[c]A2L	23 4.8	30,000	360 77	19.3	119,000	310.5
R-452C	zeotrope	R-32/125/1234yf (12.5/61.0/26.5)	A1	27	100,000	430			
R-453A	zeotrope	R-32/125/134a/227ea/600/601a (20.0/20.0/53.8/5.0/0.6/0.6)	A1	7.8	34,000	120			
R-454A	zeotrope	R-32/1234yf (35.0/65.0)	A2[c]A2L	28 3.2	16,000	450 52	18.3	63,000	293.9

R-454B	zeotrope	R-32/1234yf (68.9/31.1)	A2[c]A2L	22 3.1	19,000	360 49	22.0	77,000	352.6
R-454C	zeotrope	R-32/1234yf (21.5/78.5)	A2[c]A2L	29 4.4	19,000	460 71	18.0	62,000	289.5
R-455A	zeotrope	R-744/32/1234yf (3.0/21.5/75.5)	A2[c]A2L	23 4.9	30,000 22,000	380 79	26.9	118,000	432.1
R-456A	zeotrope	R-32/134a/1234ze(E) (6.0/45.0/49.0)	A1	20	77,000	320			
R-457A	zeotrope	R-32/1234yf/152a (18.0/70.0/12.0)	A2[c]A2L	25 3.4	15,000	400 54	13.5	60,000	216.3
R-457B	zeotrope	R-32/1234yf/152a (35.0/55.0/10.0)	A2L	3.7	19,000	59	14.9	76,000	239
R-458A	zeotrope	R-32/125/134a/227ea/236f a (20.5/4.0/61.4/13.5/0.6)	A1	18	76,000	280			
R-459A	zeotrope	R-32/1234yf/1234ze(E) (68.0/26.0/6.0)	A2[c]A2L	23 4.3	27,000	360 69	17.4	107,000	278.7
R-459B	zeotrope	R-32/1234yf/1234ze(E) (21.0/69.0/10.0)	A2[c]A2L	30	16,000 25,000	470 92	23.3	99,000	373.5
R-460A	zeotrope	R-32/125/134a/1234ze(E) (12.0/52.0/14.0/22.0)	A1	24	92,000	380			
R-460B	zeotrope	R-32/125/134a/1234ze(E) (28.0/25.0/20.0/27.0)	A1	25	120,000	400			
R-460C	zeotrope	R-32/125/134a/1234ze(E) (2.5/2.5/46.0/49.0)	A1	20	73,000	310			
R-461A	zeotrope	R-125/143a/134a/227ea/6 00a (55.0/5.0/32.0/5.0/3.0)	A1	17	61,000	270			
R-462A	zeotrope	R-32/125/143a/134a/600 (9.0/42.0/2.0/44.0/3.0)	A2	3.9	16,000	62	16.6	105,000	265.8
R-463A	zeotrope	R-744/32/125/1234yf/134 a (6.0/36.0/30.0/14.0/14.0)	A1	19	98,000	300			
R-464A	zeotrope	R-32/125/1234ze(E)/227e a (27.0/27.0/40.0/6.0)	A1	27	120,000	430			
R-465A	zeotrope	R-32/125/1234yf (21.0/7.9/71.1)	A2	2.5	12,000	40	10.0	98,000	160.9
R-466A	zeotrope	R-32/125/13l1 (49.0/11.5/39.5)	A1	6.2	30,000	99			
R-467A	zeotrope	R-32/125/134a/600a (22.0/5.0/72.4/0.6)	A2L	6.7	31,000	110			

R-468A	zeotrope	R-1132a/32/1234yf (3.5/21.5/75.0)	A2L	4.1	18,000	66			
R-469A	zeotrope	R-744/R-32/R-125 (35.0/32.5/32.5)	A1	8	53,000	130			
R-470A	zeotrope	R-744/32/125/134a/1234ze(E)/227ea (10.0/17.0/19.0/7.0/44.0/3.0)	A1	17	77,000	270			
R-470B	zeotrope	R-744/32/125/134a/1234ze(E)/227ea (10.0/11.5/3.0/57.0/7.0)	A1	16	72,000	260			
R-471A	zeotrope	R-1234ze(E)/227ea/1336mzz(E) (78.7/4.3/17.0)	A1	907	31,000	160			
R-472A	zeotrope	R-744/32/134a (69.0/12.0/19.0)	A1	4.5	35,000	72			
R-500[ed]	azeotrope	R-12/152a (73.8/26.2)	A1	7.6 7.4	30,000 29,000	120			
R-501[dc]	azeotrope	R-22/12 (75.0/25.0)	A1	13	54,000	210			
R-502[ed]	azeotrope	R-22/115 (48.8/51.2)	A1	21	73,000	330			
R-503[ed]	azeotrope	R-23/13 (40.1/59.9)	—	—	—	—			
R-504[dc]	azeotrope	R-32/115 (48.2/51.8)	—	28	140,000	450			
R-507A	azeotrope	R-125/143a (50.0/50.0)	A1	32	130,000	520 510			
R-508A	azeotrope	R-23/116 (39.0/61.0)	A1	14	55,000	220			
R-508B	azeotrope	R-23/116 (46.0/54.0)	A1	13	52,000	200			
R-509A	azeotrope	R-22/218 (44.0/56.0)	A1	24	75,000	390 380			
R-510A	azeotrope	R-E170/600a (88.0/12.0)	A3	0.87	7,300	14	3.5	29,000	56.1
R-511A	azeotrope	R-290/E170 (95.0/5.0)	A3	0.59	5,300	9.5	2.4	21,000	38.0
R-512A	azeotrope	R-134a/152a (5.0/95.0)	A2	1.9	11,000	31	7.7	45,000	123.9
R-513A	azeotrope	R-1234yf/134a (56.0/44.0)	A1	20	72,000	320			
R-513B	azeotrope	R-1234yf/134a (58.5/41.5)	A1	21	74,000	330			
R-514A	azeotrope	R-1336mzz(S)/1130(E) (74.7/25.3)	B1	0.86	2,400	14			
R-515A	azeotrope	R-1234ze(E)/227ea (88.0/12.0)	A1	19	62,000 63,000	300			
R-515B	azeotrope	R-1234ze(E)/227ea (91.1/8.9)	A1	18	61,000	290			
R-516A	azeotrope	R-1234yf/134a/152a (77.5/8.5/14.0)	A2	7.0 3.2	27,000 13,000	110 52	13.1	50,000	210.1
R-600	CH3CH2CH2CH3	butane	A3	0.15	1,000	2.4	3.0	20,000	48
R-600a	CH(CH3)2CH3	2-methylpropane (isobutane)	A3	0.59	4,000	9.6 9.5	2.4	16,000	38

R-601	CH3CH2CH2 CH2CH3	pentane	A3	0.18	1,000	2.9	2.2	12,000	35
R-601a	(CH3)2CH CH2CH3	2-methylbutane (isopentane)	A3	0.18	1,000	2.9	2.4	13,000	38
R-610	CH3CH2O CH2CH3	ethoxyethane (ethyl ether)	—	—	—	—			
R-611	HCOOCH3	methyl formate	B2	—	—	—			
R-718	H2O	water	A1	—	—	—			
R-744	CO2	carbon dioxide	A1	4.5	40,000	72			
R-1130(E)	CHCl=CHCl	trans-1,2-dichloroethene	B1B2	0.25	1,000	4	16	65,000	258
R-1132a	CF2=CH2	1,1-difluoroethylene	A2	2.0	13,000	33	8.1	50,000	131
R-1150	CH2=CH2	ethene (ethylene)	A3	—	—	—	2.2	31,000	36
R-1224yd(Z)	CF3CF=CHCl	(Z)-1-chloro-2,3,3,3-tetrafluoroethylene	A1	23	60,000	360 370			
R-1233zd€	CF3CH=CHCl	trans-1-chloro-3,3,3-trifluoro-1-propene	A1	5.3	16,000	85			
R-1234yf	$CF_3CF=CH_2$	2,3,3,3-tetrafluoro-1-propene	~~A2~~[c] A2L	~~4.7~~ 4.5	16,000	75	18.0	62,000	
R-1234ze(E)	$CF_3CH=CHF$	trans-1,3,3,3-tetrafluoro-1-propene	~~A2~~[c] A2L	4.7	16,000	~~75~~ 76	18.8	65,000	
R-1270	$CH_3CH=CH_2$	Propene (propylene)	A3	0.1	1,000	1.7			
R-1336mzz(E)	$CH_3CH=CHCF_3$	Trans 1,1,1,4,4,4-hexaflouro-2-butene	A1	3.0	7,200	48			
R-1336mzz(Z)	$CF_3CHCHCF_3$	cis-1,1,1,4,4,4-hexaflouro-2-butene	A1	5.4	13,000	87			

For SI: 1 pound = 0.454 kg, 1 cubic foot = 0.0283m^3.

a. Degrees of hazard are for health, fire, and reactivity, respectively, in accordance with NFPA 704.

b. Reduction to 1-0-0 is allowed if analysis satisfactory to the code official shows that the maximum concentration for a rupture or full loss of refrigerant charge would not exceed the IDLH, considering both the refrigerant quantity and room volume.

c. Class I ozone depleting substance; prohibited for new installations.

d. Occupational Exposure Limit based on the OSHA PEL, ACGIH TLV-TWA, the TERA WEEL or consistent value on a time-weighed average (TWA) basis (unless noted C for ceiling) for an 8 hr/d and 40 hr/wk.

(SECTION 1104 SYSTEM APPLICATION REQUIREMENTS)

1104.3.1 Air conditioning for human comfort.

High-probability systems used for human comfort shall use Group A1 or A2L refrigerant.

Exceptions:

1. Equipment listed for and used in residential occupancies containing a maximum of 6.6 pounds (3 kg) of refrigerant.
2. Equipment listed for and used in commercial occupancies containing a maximum of 22 pounds (10 kg) of refrigerant.
3. Industrial occupancies.

1104.3.2 Group A2, A3, B2 and B3 refrigerants.

Group A2 and B2 refrigerants shall not be used in high-probability systems. Group A3 and B3 refrigerants shall not be used except where approved.

Exceptions: This section does not apply to:

1. Laboratories where the floor area per occupant is not less than 100 square feet (9.3 m2).
2. Listed self-contained systems having a maximum of 0.331 pounds (150 g) of Group A3 refrigerant.
3. Industrial occupancies.
4. Equipment listed for and used in residential occupancies containing a maximum of 6.6 pounds (3 kg) of Group A2 or B2 refrigerant.
5. Equipment listed for and used in commercial occupancies containing a maximum of 22 pounds (10 kg) of Group A2 or B2 refrigerant.

(SECTION 1106 MACHINERY ROOM)

1106.3 Class 2 and 3 refrigerants. Where refrigerants of Groups A2, A3, B2 and B3 are used, the machinery room shall conform to the Class I, Division 2, hazardous location classification requirements of NFPA 70.

1106.4 Group A2L and B2L refrigerants.
Machinery rooms for Group A2L and B2L refrigerants shall comply with Sections 1106.4.1 through 1106.4.3.

1106.4.1 Elevated temperatures. Open flameproducing devices or continuously operating hot surfaces over 1290°F (700°C) shall not be permanently installed in the room.

1106.4.2 Refrigerant detector. In addition to the requirements of Section 1105.3, refrigerant detectors shall signal an alarm and activate the ventilation system in accordance with the response time specified in Table 1106.4.2.

TABLE 1106.4.2
GROUP A2L AND B2L DETECTOR ACTIVATION

ACTIVATION LEVEL	MAXIMUM RESPONSE TIME (seconds)	ASHRAE 15 VENTILATION (seconds)	ALARM RESET	ALARM TYPE
Less than or equal to the OEL in Table 1103.1	300	1	Automatic	Trouble
Less than or equal to the refrigerant concentration level in Table 1103.1	15	2	Manual	Emergency

1106.4.3 Mechanical ventilation. The machinery room shall have a mechanical ventilation system complying with ASHRAE 15.

(SECTION 1107 PIPING MATERIAL)

TABLE 1107.4
REFRIGERANT PIPE

PIPING MATERIAL	STANDARD
Aluminum tube	ASTM B210 ASTM B491/B491M
Brass (copper alloy) pipe	ASTM B43
Copper linesets	ASTM B280, ASTM B1003
Copper pipe	ASTM B42, ASTM B302
Copper tubea	ASTM B68, ASTM B75, ASTM B88, ASTM B280, ASTM B819
Steel pipeb	ASTM A53, ASTM A106, ASTM A333
Steel tube	ASTM A254, ASTM A334

a. Soft annealed copper tubing larger than 13/8 inch (35 mm) O.D. shall not be used for field assembled refrigerant piping unless it is protected from mechanical damage.
b. ASTM A53, Type F steel pipe shall only be permitted for discharge lines in pressure relief systems.

TABLE 1107.5
REFRIGERANT PIPE FITTINGS

FITTING MATERIAL	STANDARD
Aluminum	ASTM B361
Copper and Copper Alloy	ASME B16.15, ASME B16.18,
(Brass)	ASME B16.22, ASME B16.24, ASME B16.26, ASME B16.50
Steel	ASTM A105, ASTM A181, ASTM A193, ASTM A234, ASTM A420, ASTM A707

1107.7 Flexible connectors, expansion and vibration compensators. Flexible connectors and expansion and vibration control devices shall be listed and labeled for use in refrigerant systems and pressures for which the components are installed.

(SECTION 1109 REGRIGERATION PIPE INSTALLATION)

1109.2.2 Refrigerant pipe enclosure. Refrigerant piping shall be protected by locating it within the building elements or within protective enclosures.

Exception: Piping protection within the building elements or protective enclosure shall not be required in any of the following locations:

1. Where installed without ready access or located more than 7 feet 3 inches (2210 mm) above the finished floor.
2. Where located within 6 feet (1829 mm) of the refrigerant unit or appliance.
3. Where located in a machinery room complying with Section 1105.
4. Outside the building:
    4.1 Protected from damage from the weather, including, but not limited to, hail, ice, and snow loads and
    4.2 Protected from damage within the expected foot or traffic path or
    4.3 Outside, underground, installed not less than 8 inches (200 mm) below finished grade and protected against corrosion.

1109.2.3 Prohibited locations. Refrigerant piping shall not be installed in any of the following locations:

1. Exposed within a fire-resistance-rated exit access corridor.
2. Exposed within an interior exit stairway.
3. Within an interior exit ramp.
4. Within an exit passageway.
5. Within an elevator, dumbwaiter or other shaft containing a moving object.

1109.2.6 Exposed piping surface temperature.
Exposed piping with ready access to nonauthorized personnel having surface temperatures greater than 120°F (49°C) or less than 5°F (-15°C) shall be protected from contact or shall have thermal insulation that limits the exposed insulation surface temperature to a range of 5°F (-15°C) to 120°F (49°C).

1109.2.7 Pipe identification. Refrigerant pipe located in areas other than the room or space where the refrigerating equipment is located shall be identified. The pipe identification shall be located at intervals not exceeding 20 feet (6096 mm) on the refrigerant piping or pipe insulation. The minimum height of lettering of the identification label shall be 1/ 2 inch (12.7 mm). The identification shall indicate the refrigerant designation and safety group classification of refrigerant used in the piping system. For Group A2L and B2L refrigerants, the identification shall also include the following statement: "WARNING – Risk of Fire. Flammable Refrigerant." For Group A2, A3, B2 and B3 refrigerants, the identification shall also include the following statement: "DANGER— Risk of Fire or Explosion. Flammable Refrigerant." For any Group B refrigerant, the identification shall also include the following statement: "DANGER—Toxic Refrigerant."

1109.3 Installation requirements for Group A2L, A2, A3, or B2L, B2, or B3 refrigerant. Piping systems using Group A2L, A2, A3, or B2L, B2, or B3 refrigerant shall comply with the requirements of Sections 1109.3.1 and 1109.3.2.

1109.3.1 Pipe protection. In addition to the requirements of Section 305.5, aluminum, copper and steel tube used for Group A2L and A2, A3, B2L, B2, and B3 refrigerants and located in concealed locations where tubing is installed in studs, joists, rafters or similar member spaces, and located less than 11/2 inches (38 mm) from the nearest edge of the member, shall be continuously protected by shield plates. Protective steel shield plates having a minimum thickness of 0.0575 inch (1.46 mm) (No. 16 gage) shall cover the area of the tube plus the area extending not less than 2 inches (51 mm) beyond both sides of the tube.

1109.3.2 Shaft ventilation. Refrigerant pipe shafts with systems using Group A2L or B2L refrigerant shall be naturally or mechanically ventilated. Refrigerant pipe shafts with one or more systems using any Group A2, A3, B2, or B3 refrigerant shall be continuously mechanically ventilated and shall include a refrigerant detector. The shaft ventilation exhaust outlet shall comply with Section 501.3.1. Naturally ventilated shafts shall have a pipe, duct or conduit not less than 4 inches (102 mm) in diameter that connects to the lowest point of the shaft and extends to the outdoors. The pipe, duct or conduit shall be level or pitched downward to the outdoors. Mechanically ventilated shafts shall have a minimum airflow velocity in accordance with Table 1109.3.2. The mechanical ventilation shall be continuously operated or activated by a refrigerant detector. Systems utilizing a refrigerant detector shall activate the mechanical ventilation at a maximum refrigerant concentration of 25 percent of the lower flammable

limit of the refrigerant. The detector, or a sampling tube that draws air to the detector, shall be located in an area where refrigerant from a leak will concentrate. The shaft shall not be required to be ventilated for double-wall refrigerant pipe where the interstitial space of the double-wall pipe is vented to the outdoors.

(SECTION 1110 REGRIGERATION PIPING SYSTEM TEST)

1110.3 Test gases. The medium used for pressure testing the refrigerant system shall be one of the following inert gases: oxygen-free nitrogen, helium, or argon or premixed nonflammable oxygen-free nitrogen with a tracer gas of hydrogen or helium. For R-744 refrigerant systems, carbon dioxide shall be allowed as the test medium. For R-718 refrigerant systems, water shall be allowed as the test medium.

1110.3.1 Test gases not permitted. Oxygen, air, refrigerants other than those identified in Section 1110.3, combustible gases and mixtures containing such gases shall not be used as the pressure test medium.

1110.5 Piping system strength. Refrigeration system components and refrigerant piping shall be tested in accordance with ASME B31.5 or this section. Separate tests for isolated portions of the system are permitted, provided that all required portions are tested at least once. Pressurize with test gas for a minimum of 10 minutes to not less than the lower of (a) the lowest design pressure for any system component or (b) the lowest value of set pressure for any pressure relief devices in the system. The design pressures for determination of test pressure shall be the pressure identified on the label nameplate of the condensing unit, compressor, compressor unit, pressure vessel or other system component with a nameplate. A passing test result shall have no rupture or structural failure of any system component or refrigerant piping. Refrigerant piping and tubing greater than 3/4 inch (19 mm) in diameter shall be tested in accordance with ASHRAE 15.

(CHAPTER 15 REFERENCED STANDARDS)

ASHRAE		ASHRAE 180 Technology Parkway Peachtree Corners, GA 30092
ASHRAE 15—2022 ASHRAE 34—2022	Safety Standard for Refrigeration Systems Designation and Safety Classification of Refrigerants	
ASTM		ASTM International 100 Barr Harbor Drive, P.O. Box C700 West Conshohocken, PA 19428
ASTM A333/A33M—2018	Standard Specification for Seamless and Welded Steel Pipe for Low-Temperature Service and Other Applications with Required Notch Toughness	
UL		UL LLC 333 Pfingsten Road Northbrook, IL 60062-30092

UL/CSA 60335-2-40—2022 UL/CSA 60335-2-89—2021	Household and Similar Electrical Appliances—Safety—Part 2-40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners and Dehumidifiers Household and Similar Electrical Appliances—Safety—Part 2-89: Particular Requirements for Commercial Refrigerating Appliances with an Incorporated or Remote Refrigerant Unit or Compressor

SECTION 9. 2021 INTERNATIONAL FUEL GAS CODE

The City hereby adopts by this reference the 2021 International Fuel Gas Code with the following amendments by additions, insertions, deletions and changes to read as follows:

(CHAPTER 1 SCOPE AND ADMINISTRATION)

(SECTION 101 SCOPE AND GENERAL REQUIREMENTS)

101.1 Title. These regulations shall be known as the Fuel Gas Code of the City of Flint Hill, Missouri, hereinafter referred to as "this code."

(SECTION 103 CODE COMPLIANCE AGENCY)

103.1 Creation of agency. The City Building Department is hereby created, and the official in charge thereof shall be known as the Building Inspector. The function of the position shall be the implementation, administration and enforcement of the provisions of this code.

103.2 Appointment. The Building Inspector is appointed as provided by ordinance.

103.2 Appointment. The Building Inspector shall be appointed as provided by ordinance.

(SECTION (IFGC) 106 PERMITS)

106.5.3 Expiration. Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 180 days after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced.

106.5.3.1 Reinstatement. A permit that has expired may be reinstated where approved by the Building Inspector. The request for reinstatement shall be in writing and justifiable caused demonstrated.

106.5.4 Extensions. The Building Inspector is authorized to grant, in writing, one or more extensions of time for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

(SECTION 107 (IFGC) CONSTRUCTION DOCUMENTS)

107.1 General. Construction documents, engineering calculations, diagrams and other data shall be submitted as required by the Building Inspector, with each application for a permit. The Building Inspector shall require construction documents, computations and specifications to be prepared and designed by a registered design professional where required by state law. Where special conditions exist, the Building Inspector is authorized to require additional construction documents to be prepared by a registered design professional. Construction documents shall be drawn to scale and shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that the work conforms to the provisions of this code. Construction documents for buildings more than two stories in height shall indicate where penetrations will be made for mechanical systems, and the materials and methods for maintaining required structural safety, fire resistance rating and fireblocking.

> Exception: The Building Inspector shall have the authority to waive the submission of construction documents, calculations or other data if the nature of the work applied for is such that reviewing of construction documents is not necessary to determine compliance with this code.

107.1.2 Electronic submission. Where design documents including, but not limited to, plot plans, site plans, design drawings, specifications, etc., are originally created electronically, the Building Inspector is authorized to require electronic submittal of documents in a portable document format (PDF) or similar format for review. Where design documents were originally prepared on paper and are submitted in a paper form, the Building Inspector is authorized to charge a fee for converting those drawings to PDF equal to the cost incurred by staff recreating the document and not to exceed more than one (1) dollar per page.

> Exception: Where submittal documents were originally prepared by hand and are 11 inches by 17 inches or less, the fee for document conversion shall not be charged.

(SECTION 113 (IFGC) MEANS OF APPEALS)

113.1 General. For the purposes of this code, all appeals shall be in accordance with the procedure established for the Building Code of the City of Flint Hill, Missouri, as provided in Section 5 of this Ordinance, at Section 113.1 through 113.5..

113.2 Limitations on authority. DELETED.

113.3 Qualifications. DELETED.

113.4 Administration. DELETED.

(SECTION 114 (IFGC) BOARD OF APPEALS)

114.1 Membership of board. DELETED.

(SECTION 115 (IFGC) VIOLATIONS)

115.4 Violation penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter or repair work in violation of the approved construction documents or directive of the Building Inspector, or a permit or certificate issued under the provisions of this code, shall be guilty of misdemeanor and upon conviction thereof shall be punishable by a fine of not more than five hundred ($500.00) dollars. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

(SECTION 116 (IFGC) STOP WORK ORDER)

116.2 Issuance. The stop work order shall be in writing and shall be given to the owner of the property involved, the owner's authorized agent or the person performing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order and the conditions under which the cited work will be permitted to resume. Any person served with a stop work order shall pay an administrative penalty of up to two hundred fifty dollars ($250.00).

SECTION 10. 2020 NFPA 70 NATIONAL ELECTRICAL CODE

The City hereby adopts by this reference the 2020 NFPA 70 – National Electric Code with the following amendments by additions, insertions, deletions and changes to read as follows:

(ARTICLE 90 INTRODUCTION)

(SCOPE AND GENERAL REQUIREMENTS)

These regulations shall be known as the Electrical Code of the City of Flint Hill, Missouri, hereinafter referred to as "this code."

(ADMINISTRATION)

103.1 Creation of enforcement agency. The City Building Department is hereby created, and the official in charge thereof shall be known as the Building Inspector. The function of the position shall be the implementation, administration and enforcement of the provisions of this code.

103.2 Appointment. The Building Inspector is appointed as provided by Ordinance.

(CHAPTER 2 WIRING AND PROTECTION)

(ARTICLE 210 BRANCH CIRCUITS)

210.8(A) Dwelling Units. All 125-volt through 250-volt receptacles installed in the locations specified in 210.8(A)(1) through (A)(11) and supplied by single-phase branch circuits rated 150 volts or less to ground shall have ground-fault circuit-interrupter protection for personnel.

1. Bathrooms

2. Garages and also accessory buildings that have a floor located at or below grade level not intended as habitable rooms and limited to storage areas, work areas, and areas of similar use

> Exception to (2): For one-and two-family dwellings and townhouses, garage door opener receptacles not installed in a readily accessible location

3. Outdoors

> Exception to (3): Receptacles that are not readily accessible and are supplied by a branch circuit dedicated to electric snow-melting, deicing, or pipeline and vessel heating equipment shall be permitted to be installed in accordance with 426.28 or 427.22, as applicable.

4. Crawl spaces — at or below grade level

5. Basements

> Exception to (5): A receptacle supplying only a permanently installed fire alarm or burglar alarm system shall not be required to have ground-fault circuit-interrupter protection.

Informational Note: See 760.41(B) and 760.121(B) for power supply requirements for fire alarm systems.

Receptacles installed under the exception to 210.8(A)(5) shall not be considered as meeting the requirements of 210.52(G).

6. Kitchens — where the receptacles are installed to serve the countertop surfaces

7. Sinks — where receptacles are installed within 1.8 m (6 ft) from the top inside edge of the bowl of the sink

8. Boathouses

9. Bathtubs or shower stalls — where receptacles are installed within 1.8 m (6 ft) of the outside edge of the bathtub or shower stall

10. Laundry areas

> Exception to (1) through (3), (5) through (8), and (10): Listed locking support and mounting receptacles utilized in combination with compatible attachment fittings installed for the purpose of serving a ceiling luminaire or ceiling fan shall not be required to be ground-fault circuit-interrupter protected. If a general-purpose convenience receptacle is integral to the ceiling luminaire or ceiling fan, GFCI protection shall be provided.

11. Indoor damp and wet locations

210.12(A) Dwelling Units. All 120-volt, single-phase, 15- and 20-ampere branch circuits supplying outlets or devices installed in dwelling unit kitchens, family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, laundry areas, or similar rooms or areas shall be protected by any of the means described in 210.12(A)(1) through (6):

Exception: For one-and two-family dwellings and townhouses, protection is not required in laundry areas and similar rooms or areas.

1. A listed combination-type arc-fault circuit interrupter installed to provide protection of the entire branch circuit

2. A listed branch/feeder-type AFCI installed at the origin of the branch-circuit in combination with a listed outlet branch-circuit-type arc-fault circuit interrupter installed at the first outlet box on the branch circuit. The first outlet box in the branch circuit shall be marked to indicate that it is the first outlet of the circuit.

3. A listed supplemental arc protection circuit breaker installed at the origin of the branch circuit in combination with a listed outlet branch-circuit-type arc-fault circuit interrupter installed at the first outlet box on the branch circuit where all of the following conditions are met:

a. The branch-circuit wiring shall be continuous from the branch-circuit overcurrent device to the outlet branch-circuit arc-fault circuit interrupter.

b. The maximum length of the branch-circuit wiring from the branch-circuit overcurrent device to the first outlet shall not exceed 15.2 m (50 ft) for a 14 AWG conductor or 21.3 m (70 ft) for a 12 AWG conductor.

c. The first outlet box in the branch circuit shall be marked to indicate that it is the first outlet of the circuit.

4. A listed outlet branch-circuit-type arc-fault circuit interrupter installed at the first outlet on the branch circuit in combination with a listed branch-circuit overcurrent protective device where all of the following conditions are met:

a. The branch-circuit wiring shall be continuous from the branch-circuit overcurrent device to the outlet branch-circuit arc-fault circuit interrupter.

b. The maximum length of the branch-circuit wiring from the branch-circuit overcurrent device to the first outlet shall not exceed 15.2 m (50 ft) for a 14 AWG conductor or 21.3 m (70 ft) for a 12 AWG conductor.

c. The first outlet box in the branch circuit shall be marked to indicate that it is the first outlet of the circuit.

d. The combination of the branch-circuit overcurrent device and outlet branch-circuit AFCI shall be identified as meeting the requirements for a system combination-type AFCI and shall be listed as such.

5. If metal raceway, metal wireways, metal auxiliary gutters, or Type MC, or Type AC cable meeting the applicable requirements of 250.118, with metal boxes, metal conduit bodies, and metal enclosures are installed for the portion of the branch circuit between the branch-circuit overcurrent device and the first outlet, it shall be permitted to install a listed outlet branch-circuit-type AFCI at the first outlet to provide protection for the remaining portion of the branch circuit.

6. Where a listed metal or nonmetallic conduit or tubing or Type MC cable is encased in not less than 50 mm (2 in.) of concrete for the portion of the branch circuit between the branch-circuit overcurrent device and the first outlet, it shall be permitted to install a listed outlet branch-circuit-type AFCI at the first outlet to provide protection for the remaining portion of the branch circuit.

Exception: AFCI protection shall not be required for an individual branch circuit supplying a fire alarm system installed in accordance with 760.41(B) or 760.121(B). The branch circuit shall be installed in a metal raceway, metal auxiliary gutter, steel-armored cable, Type MC or Type AC, meeting the applicable requirements of 250.118, with metal boxes, conduit bodies, and enclosures.

Informational Note No. 1: For information on combination-type and branch/feeder-type arc-fault circuit interrupters, see UL 1699-2011, Standard for Arc-Fault Circuit Interrupters. For information on outlet branch-circuit type arc-fault circuit interrupters, see UL Subject 1699A, Outline of Investigation for Outlet Branch Circuit Arc-Fault Circuit-Interrupters. For information on system combination AFCIs, see UL Subject 1699C, Outline of Investigation for System Combination Arc-Fault Circuit Interrupters.

Informational Note No. 2: See 29.6.3(5) of NFPA 72-2013, National Fire Alarm and Signaling Code, for information related to secondary power-supply requirements for smoke alarms installed in dwelling units.

Informational Note No. 3: See 760.41(B) and 760.121(B) for power-supply requirements for fire alarm systems.

(D) Branch Circuit Extensions or Modifications — Dwelling Units, Dormitory Units, and Guest Rooms and Guest Suites. Where branch circuit wiring for any of the areas specified in 210.12(A), (B), or (C) is modified, replaced, or extended, the branch circuit shall be protected by one of the following:

(1) By any of the means described in 210.12(A)(1) through (A)(6)

(2) A listed outlet branch-circuit-type AFCI located at the first receptacle outlet of the existing branch circuit

Exception No. 1: AFCI protection shall not be required where the extension of the existing branch circuit conductors is not more than 1.8 m (6 ft) and does not include any additional outlets or devices, other than splicing devices. This measurement shall not include the conductors inside an enclosure, cabinet, or junction box.

Exception No. 2: For one-and two-family dwellings and townhouses, AFCI protection shall not be required where the extension of the existing branch circuit conductors is not more than 9.5 m (30 ft) and does not include any additional outlets or devices, other than splicing devices. This measurement shall not include the conductors inside an enclosure, cabinet, or junction box.

210.52(C)(2) Island and Peninsular Countertops and Work Surfaces. Receptacle outlets, if installed to serve an island or peninsular countertop or work surface, shall be installed in accordance with 210.52(C)(3). If a receptacle outlet is not provided to serve an island or peninsular countertop or worksurface, provisions shall be provided at the island or peninsula for future addition of a receptacle outlet to serve the island or peninsular countertop or work surface.

210.52(C)(3) Receptacle Outlet Location.
Receptacle outlets shall be located in one or more of the following:

(1) On or above, but not more than 500 mm (20 in.) above, a countertop or work surface.
(2) In a countertop using outlet assemblies listed for use in countertops.
(3) In a work surface using receptacle outlet assemblies listed for use in work surfaces or listed for use in countertops Receptacle outlets rendered not readily accessible by appliances fastened in place, appliance garages, sinks, or range tops as covered in 210.52(C)(1), exception, or appliances occupying assigned spaces shall not be considered as these required outlets.

(ARTICLE 230 SERVICES)

230.85 Emergency Disconnects. DELETED.

(CHAPTER 4 EQUIPMENT FOR GENERAL USE)

(ARTICLE 406 RECEPTACLES, CORD CONNECTORS, AND ATTACHMENT PLUGS (CAPS))

406.12 Tamper-Resistant Receptacles. All 15- and 20-ampere, 125- and 250-volt nonlocking-type receptacles in the areas specified in 406.12(1) through (8) shall be listed tamper-resistant receptacles.

(1) Dwelling units, including attached and detached garages and accessory buildings to dwelling units, and common areas of multifamily dwellings specified in 210.52 and 550.13

(2) Guest rooms and guest suites of hotels, motels, and their common areas

(3) Child care facilities

(4) Preschools and education facilities

(5) Business offices, corridors, waiting rooms and the like in clinics, medical and dental offices, and outpatient facilities

(6) Subset of assembly occupancies described in 518.2 to include places of awaiting transportation, gymnasiums, skating rinks, and auditoriums

(7) Dormitory units

(8) Assisted living facilities

Informational Note No. 1: This requirement would include receptacles identified as 5-15, 5-20, 6-15, and 6-20 in ANSI/NEMA WD 6-2016, Wiring Devices — Dimensional Specifications.

Informational Note No. 2: Assisted living facilities are Institutional Use Group I-1 per IBC 2015.

Exception No. 1 to (1): This shall not apply to one-and two-family dwellings and townhouses

Exception No. 2 to (1), (2), (3), (4), (5), (6), (7) and (8): Receptacles in the following locations shall not be required to be tamper resistant:

(9) Receptacles located more than 1.7 m (5 ½ ft) above the floor

(10) Receptacles that are part of a luminaire or appliance

(11) A single receptacle, or a duplex receptacle for two appliances, located within the dedicated space for each appliance that, in normal use, is not easily moved from one place to another and that is cord-and-plug-connected in accordance with 400.10(A)(6), (A)(7), or (A)(8)

(12) Nongrounding receptacles used for replacements as permitted in 406.4(D)(2)(a)

SECTION 11. 2021 INTERNATIONAL PLUMBING CODE

The City hereby adopts by this reference the 2021 International Plumbing Code with the following amendments by additions, insertions, deletions and changes to read as follows:

(CHAPTER 1 SCOPE AND ADMINISTRATION)

(SECTION 101 SCOPE AND GENERAL REQUIREMENTS)

101.1 Title. These regulations shall be known as the Plumbing Code of the City of Flint Hill, Missouri, hereinafter referred to as “this code.”

(SECTION 103 CODE COMPLIANCE AGENCY)

103.1 Creation of enforcement agency. The City Building Department is hereby created, and the official

in charge thereof shall be known as the Building Inspector. The function of the position shall be the implementation, administration and enforcement of the provisions of this code.

103.2 Appointment. The Building Inspector is appointed as provided by Ordinance.

(SECTION 106 PERMITS)

106.5.3 Expiration. Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 180 days after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced.

106.5.3.1 Reinstatement. A permit that has expired may be reinstated where approved by the Building Inspector. The request for reinstatement shall be in writing and justifiable caused demonstrated.

106.5.4 Extensions. The Building Inspector is authorized to grant, in writing, one or more extensions of time for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

(SECTION 107 CONSTRUCTION DOCUMENTS)

107.1 General. Construction documents, engineering calculations, diagrams and other data shall be submitted as required by the Building Inspector, with each application for a permit. The Building Inspector shall require construction documents, computations and specifications to be prepared and designed by a registered design professional where required by state law. Where special conditions exist, the Building Inspector is authorized to require additional construction documents to be prepared by a registered design professional. Construction documents shall be drawn to scale and shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that the work conforms to the provisions of this code. Construction documents for buildings more than two stories in height shall indicate where penetrations will be made for mechanical systems, and the materials and methods for maintaining required structural safety, fire resistance rating and fireblocking.

> Exception: The Building Inspector shall have the authority to waive the submission of construction documents, calculations or other data if the nature of the work applied for is such that reviewing of construction documents is not necessary to determine compliance with this code.

107.1.2 Electronic submission. Where design documents including, but not limited to, plot plans, site plans, design drawings, specifications, etc., are originally created electronically, the Building Inspector is authorized to require electronic submittal of documents in a portable document format (PDF) or similar format for review. Where design documents were originally prepared on paper and are submitted in a paper form, the Building Inspector is authorized to charge a fee for converting those drawings to PDF equal to the cost incurred by City recreating the document and not to exceed more than one (1) dollar per page.

> Exception: Where submittal documents were originally prepared by hand and are 11 inches by 17 inches or less, the fee for document conversion shall not be charged.

(SECTION 113 MEANS OF APPEALS)

113.1 General. For the purposes of this code, all appeals shall be in accordance with the procedure established for the Building Code of the City of Flint Hill, Missouri, as provided in Section 5 of this Ordinance, at Section 113.1 through 113.5.

113.2 Limitations on authority. DELETED.

113.3 Qualifications. DELETED.

113.4 Administration. DELETED.

(SECTION 114 BOARD OF APPEALS)

114.1. Membership of board. DELETED.

(SECTION 114 UNSAFE STRUCTURES AND EQUIPMENT)

114.5 Method of service. Notice shall be served as provided for in Section 500.520, Ordinances of St. Charles County, Missouri.

(CHAPTER 2 DEFINITIONS)
(SECTION 202 DEFINITIONS)

FLAMMABLE GAS. A material that is a gas at 68°F (20°C) or less at 14.7 pounds per square inch atmosphere (psia) (101 kPa) of pressure [a material that has a *boiling point* of 68°F (20°C) or less at 14.7 psia (101 kPa)], subdivided as follows:

4. Category 1A. A gas that meets either of the following:

1.1 Ignitable at 14.7 psia (101 kPa) when in a mixture of 13 percent or less by volume with air.

1.2 A flammable range at 14.7 psia (101 kPa) with air of at least 12 percent, regardless of the lower limit, unless data shows compliance with Category 1B.

5. Category 1B. A gas that meets the flammability criteria for Category 1A, is not pyrophoric or chemically unstable, and meets one or more of the following:

2.1 A lower flammability limit of more than 6 percent by volume of air.

2.2 A fundamental burning velocity of less than 3.9 inches/second (99 mm/s). The limits specified shall be determined at 14.7 psi (101 kPa) of pressure and a temperature of 68°F (20°C) in accordance with ASTM E681. Where not otherwise specified, the term “flammable gas” include both Category 1A and 1B.

(CHAPTER 6 BUILDING SERVICES AND SYSTEMS)
(SECTION 608 MECHANICAL REGRIGERATION)

608.17 Electrical equipment. Where refrigerant of Groups A2, A3, B2 and B3, as defined in the International Mechanical Code, are used, refrigeration machinery rooms shall conform to the Class I, Division 2, hazardous location classification requirements of NFPA 70.

Exception: Ammonia machinery rooms that are provided with ventilation in accordance with Section 1101.1.2, Exception 1 of the International Mechanical Code.

608.18 Group A2L and B2L refrigerant. Machinery rooms for Group A2L and B2L refrigerant shall comply with Sections 1106.4.1 through 1106.4.3 of the International Mechanical Code.

608.18.1 Elevated temperatures. Open flame producing devices or continuously operating hot surfaces over 1,290°F (700°C) shall not be permanently installed in the room.

608.18.2 Refrigerant detector. In addition to the requirements of Section 1105.3 of the International Mechanical Code, refrigerant detectors shall signal an alarm and activate the ventilation system in accordance with the response time specified in Table 608.18.2.

TABLE 608.18.2 GROUP A2L AND B2L DETECTOR ACTIVATION

ACTIVATION LEVEL	MAXIMUM RESPONSE TIME (seconds)	ASHRAE 15 VENTILATION LEVEL	ALARM RESET	ALARM TYPE
Less than or equal to the OEL in Table 1103.1 of the International Mechanical Code	300	1	Automatic	Trouble
Less than or equal to the refrigerant concentration level in Table 1103.1 of the International Mechanical Code	15	2	Manual	Emergency

608.18.3 Mechanical ventilation. The machinery room shall have a mechanical ventilation system complying with ASHRAE 15.

(CHAPTER 9 FIRE PROTECTION AND LIFE SAFETY SYSTEMS)
(SECTION 911 EXPLOSION CONTROL)
TABLE 911.1
EXPLOSION CONTROL REQUIREMENTS[f]

MATERIAL	CLASS	EXPLOSION CONTROL METHODS	
		Barricade construction	Explosion (deflagration) venting or explosion (deflagration) prevention systems
Hazard Category			
Combustible dustsa	—	Not required	Required

Cryogenic fluids	Flammable	Not required	Required
Explosives	Division 1.1	Required	Not required
	Division 1.2	Required	Not required
	Division 1.3	Not required	Required
	Division 1.4	Not required	Required
	Division 1.5	Required	Not required
	Division 1.6	Required	Not required
Flammable gas	Gaseous	Not required	Requiredh
	Liquefied	Not required	Requiredh
Flammable liquids	IAb	Not required	Required
	IBc	Not required	Required
Organic peroxides	Unclassified detonable	Required	Not permitted
	I	Required	Not permitted
Oxidizer liquids and solids	4	Required	Not permitted
Pyrophoric	Gases	Not required	Required
Unstable (reactive)	4	Required	Not permitted
	3 detonable	Required	Not permitted
	3 nondetonable	Not required	Required
Water-reactive liquids and solids	3	Not required	Required
	2e	Not required	Required
Special Uses			
Acetylene generator rooms	—	Not required	Required
Electrochemical energy storage systemsg	—	Not required	Required
Energy storage systemsg	—	Not required	Required
Grain processing	—	Not required	Required
Liquefied petroleum gas distribution facilities	—	Not required	Required
Where explosion hazards existd	Detonation	Required	Not permitted
	Deflagration	Not required	Required

1. Combustible dusts where manufactured, generated or used in such a manner that the concentration and conditions create a fire or explosion hazard based on information prepared in accordance with Section 104.8.2. See definition of "Combustible dust" in Chapter 2.
2. Storage or use.
3. In open use or dispensing.

4. Rooms containing dispensing and use of hazardous materials where an explosive environment can occur because of the characteristics or nature of the hazardous materials or as a result of the dispensing or use process.
5. A method of explosion control shall be provided where Class 2 water-reactive materials can form potentially explosive mixtures.
6. Explosion venting is not required for Group H-5 Fabrication Areas complying with Chapter 27 and the International Building Code.
7. Where explosion control is required in Section 1207.6.3.
8. Not required for Category 1B Flammable Gases having a burning velocity not exceeding 3.9 in/s (10 cm/s).

(SECTION 116 STOP WORK ORDER)

116.2 Issuance. The stop work order shall be in writing and shall be given to the owner of the property involved, the owner's authorized agent or the person performing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order and the conditions under which the cited work will be permitted to resume. Any person served with a stop work order shall pay an administrative penalty of up to two hundred fifty dollars ($250.00).

(CHAPTER 3 GENERAL REGULATIONS)

(SECTION 305 PROTECTION OF PIPES AND PLUMBING SYSTEM COMPONENTS)

305.4.1 Sewer Depth. Building sewers that connect to private sewage disposal systems shall be installed not less than 18 inches (457 mm) below finished grade at the point of septic tank connection. Building sewers shall be installed not less than 30 inches (762 mm) below grade.

(CHAPTER 6 WATER SUPPLY AND DISTRIBUTION)

(SECTION 602 WATER REQUIRED)

602.2 Potable water required. Only potable water shall be supplied to plumbing fixtures that provide water for drinking, bathing or culinary purposes, or for the processing of food, medical or pharmaceutical products. Unless otherwise provided in this code, potable water shall be supplied to all plumbing fixtures. The water distribution system of any building in which plumbing fixtures are installed shall connect to a potable public water supply, if available. A potable public water supply shall be considered available when the nearest property line is located within two hundred (200) feet of a potable public water main.

(CHAPTER 7 SANITARY DRAINAGE)

(SECTION 701 GENERAL)

701.2 Connection to sewer required. Sanitary drainage piping from plumbing fixtures in buildings and sanitary drainage piping systems from premises shall be connected to a public sewer, if available. A public sewer shall be considered available when the nearest property line is located within two hundred (200) feet of a public sewer. Where a public sewer is not available, the sanitary drainage piping and systems shall be connected to a private sewage disposal system in compliance with state or local requirements.

Exception: Sanitary drainage piping and systems that convey only the discharge from bathtubs, showers, lavatories, clothes washers and laundry trays shall not be required to connect to a public sewer or to a private sewage disposal system provided that the piping or systems are connected to a system in accordance with Chapter 13 or14.

(CHAPTER 9 VENTS)

(SECTION 903 VENT TERMINALS)

903.1.1 Roof extension unprotected. Open vent pipes that extend through a roof shall be terminated not less than 12 inches (305 mm) above the roof.

SECTION 12. 2021 INTERNATIONAL PRIVATE SEWAGE DISPOSAL CODE

The City hereby adopts by this reference the 2021 International Private Sewage Disposal Code with the following amendments by additions, insertions, deletions and changes to read as follows:

(CHAPTER 1 SCOPE AND ADMINISTRATION)

(SECTION 101 SCOPE AND GENERAL REQUIREMENTS)

101.1 Title. These regulations shall be known as the Private Sewage Disposal Code of the City of Flint Hill, Missouri, hereinafter referred to as "this code."

101.2 Scope. Septic tank and effluent absorption systems or other treatment tank and effluent disposal systems shall be permitted where a public sewer is not available to the property served. A public sewer shall be considered available when the nearest property line is located within two hundred (200) feet of a public sewer. Unless specifically approved, the *private sewage disposal system* of each building shall be entirely separate from and independent of any other building. The use of a common system or a system on a parcel other than the parcel where the structure is located shall be subject to the full requirements of this code as for systems serving public buildings.

101.3 Public sewer connection. Where public sewers become available to the premises served, only the repair of an existing system will be permitted. If a new system is required to be installed, the use of the private sewage disposal system shall be discontinued. The building sewer shall be disconnected from the private sewage disposal system and connected to the public sewer.

(SECTION 103 CODE COMPLIANCE AGENCY)

103.1 Creation of enforcement agency. The City Building Department is hereby created and the official in charge thereof shall be known as the Building Inspector. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

103.2 Appointment. The Building Inspector shall be appointed as provided by ordinance.

106.2.4 Soil data. Soil test reports shall be submitted indicating soil boring data related to the undisturbed and finished grade elevations, vertical elevation reference point and horizontal reference point. Surface elevations shall be given for all soil borings. Soil reports shall bear the signature of a soil tester.

106.3.3.1 Reinstatement. A permit that has expired may be reinstated where approved by the Building Inspector. The request for reinstatement shall be in writing and justifiable caused demonstrated.

106.4.2 Fee schedule. The fees for private sewage disposal work shall be as: set forth by the Ordinances of the City of Flint Hill, Missouri.

106.4.3 Fee refunds. The Building Inspector is authorized to establish a refund policy.

106.5. Private Sewage Disposal Permitting.

A. Prior to the transfer of ownership of any property served by a private sewage disposal system and/or private well, the seller shall have the private sewage disposal system and/or private well inspected for compliance with this Code . The inspections shall be conducted by a third-party inspector licensed by St. Charles County. Inspection fees shall be the responsibility of the seller. All violations found at the time of inspection shall be corrected by either the seller or the buyer. If the buyer accepts responsibility to correct the violations, the buyer must meet the following requirements:

1. The buyer must sign an affidavit accepting responsibility for correcting violations and deliver that affidavit to the St. Charles County Division of Building and Code Enforcement; and

2. Either the buyer or seller must establish an escrow account as provided by law in which is deposited a fund sufficient to cover the costs of correcting violations, as determined by the Director of the St. Charles County Division of Building and Code Enforcement based on bids or other documentation provided by the buyer or seller. That escrow account shall be established pursuant to an escrow or lender's agreement prepared on a form to be developed and supplied by the Director of the St. Charles County Division of Building and Code Enforcement and complying substantially with forms authorized by St. Charles County Ordinance No. 93-44. The Director shall release escrow funds only when the private sewage disposal system and/or private well are brought into compliance with applicable codes.

B. A twenty dollar ($20.00) fee shall be assessed by the St. Charles County Division of Building and Code Enforcement for its review of the inspection report and all the actions it will have to take and paperwork it will have to process to determine that the subject system complies with this code, and such fee shall be paid to the St. Charles County Division of Building and Code Enforcement at the time St. Charles County Division of

Building and Code Enforcement receives the inspection report and prior to it taking any action or processing any paperwork.

(SECTION 107 CONSTRUCTION DOCUMENTS)

107.1 General. Submittal documents consisting of construction documents, statement of special inspections, geotechnical report and other data shall be submitted as required by the Building Inspector, with sufficient clarity and detail dimensions showing the nature and character of the work to be performed each permit application. Specifications shall include pumps and controls, dose volume, elevation differences (vertical lift), pipe friction loss, pump performance curve, pump model and pump manufacturer. The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist, the Building Inspector is authorized to require additional construction documents to be prepared by a registered design professional. Where the quality of the materials is essential for conformity to this code, specific information shall be given to establish such quality, and this code shall not be cited, or the term "legal" or its equivalent use as a substitute for specific information.

Exception: The Building Inspector is authorized to waive the submission of construction documents and other data not required to be prepared by a registered design professional if it is found that the nature of the work applied for is such that review of construction documents is not necessary to obtain compliance with this code.

107.1.2 Electronic submission. Where design documents including, but not limited to, plot plans, site plans, design drawings, specifications, etc., are originally created electronically, the Building Inspector is authorized to require electronic submittal of documents in a portable document format (PDF) or similar format for review. Where design documents were originally prepared on paper and are submitted in a paper form, the Building Inspector is authorized to charge a fee for converting those drawings to PDF equal to the cost incurred by City recreating the document and not to exceed more than one (1) dollar per page.

Exception: Where submittal documents were originally prepared by hand and are 11 inches by 17 inches or less, the fee for document conversion shall not be charged.

(SECTION 112 MEANS OF APPEALS)

112.1 General. For the purposes of this code, all appeals shall be in accordance with the procedure established for the Building Code of the City of Flint Hill, Missouri, as provided in Section 5 of this Ordinance, at Section 113.1 through 113.5.

112.2 Limitations on authority. DELETED.

112.3 Qualifications. DELETED.

112.4 Administration. DELETED.

(SECTION 113 BOARD OF APPEALS)

113.1 Membership of board. DELETED.

(SECTION 114 VIOLATIONS)

114.4 Violation penalties. Any person who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter or repair private sewage disposal work in violation of the approved construction documents or directive of the Building Inspector, or a permit or certificate issued under the provisions of this code, shall be guilty of misdemeanor and upon conviction thereof shall be punishable by a fine of not more than five hundred ($500.00) dollars. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

(SECTION 115 STOP WORK ORDER)

115.2 Issuance. The stop work order shall be in writing and shall be given to the owner of the property involved, the owner's authorized agent or the person performing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order and the conditions under which the cited work will be authorized to resume. Any person served with a stop work order shall pay an administrative penalty of up to two hundred fifty dollars ($250.00).

(CHAPTER 3 GENERAL REGULATIONS)

(SECTION 302 SPECIFIC LIMITATIONS)

302.6 Water softener and iron filter backwash. Water softener or iron filter discharge shall discharge onto the ground surface, provided that a nuisance is not created.

(CHAPTER 4 SITE EVALUATION AND REQUIREMENTS)

(SECTION 403 SOIL BORINGS AND EVALUATION)

403.1 Soil borings and profile descriptions. Soil borings shall be conducted on all sites, regardless of the type of private sewage system planned to serve the parcel. Borings shall extend at least 3 feet (914 mm) below the bottom of the proposed system. Borings shall be of sufficient size and extent to determine the soil characteristics important to an on-site liquid waste disposal system. Borehole data shall be used to determine the suitability of soils at the site with respect to zones of seasonal or permanent soil saturation and the depth to bedrock. The use of power augers for soil borings is prohibited. Soil borings shall be conducted and reported in accordance with Sections 403.1.1 through 403.1.5. Where it is not practical to have borings made with a backhoe, such borings shall be augered or dug by hand.

403.1.1 Number. There shall be not less than ~~three~~ two borings per soil absorption site. Where necessary, more soil borings shall be made for an accurate evaluation of a site. Borings shall be constructed to a depth of not less than 3 feet (914 mm) below the proposed depth of the system.

Exception: Three borings are required for repairs of existing private sewage disposal systems, along with one backhoe excavation at a 5-foot depth.

(SECTION 404 PERCOLATION OR PERMEABILITY EVALUATION)

404.1 General. The permeability of the soil in the proposed absorption system shall be determined by permeability evaluation.

404.2 Percolation tests and procedures. DELETED.

404.2.1 Percolation test hole. DELETED.

404.2.2 Test procedure, sandy soils. DELETED.

404.2.3 Test procedure, other soils. DELETED.

404.2.4 Mechanical test equipment. DELETED.

(SECTION 406 SITE REQUIREMENTS)

TABLE 406.1
MINIMUM HORIZONTAL SEPARATION DISTANCES
FOR SOIL ABSORPTION SYSTEMS

ELEMENT	DISTANCE (feet)
Cistern	50
Habitable building, below-grade foundation	25
Habitable building, slab-on-grade	15
Lake, high-water mark	50
Lot line (for new construction)	~~5~~ 30
Lot line (for repairs)	10
Reservoir	50
Roadway ditches	10
Spring	100
Streams or watercourse[a]	50
Swimming pool	15
Uninhabited building	10
Water main	50
Water service	10
Water well	100

For SI: 1 foot = 304.8 mm.
a. All natural watercourses depicted on the most current United States Geological Survey (U.S.G.S) 7.5 Minute Series (Topographic) Maps for St. Charles County, Missouri, shall be left in their natural state.

406.3 Percolation rate, trench or bed. DELETED.

406.4 Percolation rate, seepage pit. DELETED.

(CHAPTER 5 MATERIALS)

(SECTION 501 GENERAL)

501.2 Minimum standards. Materials shall conform to the standards referenced in this code for the construction, installation, alteration or repair of private sewage disposal systems or parts thereof. All new construction requires NSF Class 1 tanks, unless otherwise determined by Building Inspector.

Exception: The extension, addition to or relocation of existing pipes with materials of like grade or quality in accordance with Sections 102.6 and 105.

(SECTION 504 TANKS)

504.1.2 Steel tanks. DELETED.

TABLE 504.1.2 TANK CAPACITY. DELETED.

(CHAPTER 6 SOIL ABSORPTION SYSTEMS)
(SECTION 602 SIZING SOIL ABSORPTION SYSTEMS)

602.1 General. Effluent from septic tanks and other approved treatment tanks shall be disposed of by soil absorption or an approved manner. Sizing shall be in accordance with this chapter for systems with a daily effluent application of 3,000 gallons (11,356 925 L) or less. Two systems of equal size shall be required for systems receiving effluents exceeding 3,000 gallons (11,356 L) per day. Each system shall have a minimum capacity of 75 percent of the area required for a single system. An approved means of alternating waste application shall be provided. A dual system shall be considered as one system.

(SECTION 603 RESIDENTIAL SIZING)

603.1 General. All absorption fields shall be designed based on soil morphology revaluation reports prepared by a certified professional soil scientist or by a professional engineer licensed by the State of Missouri.

TABLE 603.1 MINIMUM ABSORPTION AREA FOR ONE- AND TWO-FAMILY DWELLINGS DELETED.

(SECTION 604 OTHER BUILDING SIZING)

604.1 General. Calculations to determine the size of absorption field shall be based upon sewage flow rates in Table 2A and soil groups in Tables 13 and 14 in 19 CSR 20-3.060 as currently promulgated or as amended hereafter and as provided in that rule.

TABLE 604.1(1) MINIMUM ABSORPTION AREA FOR OTHER THAN ONE- AND TWO-FAMILY DWELLINGS DELETED.

TABLE 604.1(2) CONVERSION FACTOR DELETED.

DIAMETER (inches)	VOLUME (gallons per foot length)
1	0.041
1-1/4	0.064
1-1/2	0.092
2	0.164
3	0.368
4	0.655
5	1.47

604.2 Drain Field Calculations, rounding. Calculation for the length of the drain field shall be rounded up to the next 100 lineal feet.

(CHAPTER 7 PRESSURE DISTRIBUTION SYSTEMS)

(SECTION 706 DOSING)

706.1 General. The dosing frequency shall be not greater than four times daily. A volume per dose shall be established by dividing the daily waste-water flow by the dosing frequency. The dosing volume shall be not less than 10 times the capacity of the distribution pipe volume. Table 706.1 provides the estimated volume for various pipe diameters.

TABLE 706.1
ESTIMATED VOLUME FOR VARIOUS DIAMETER PIPES[a]

a. For any septic system that requires dosing, the pump tank shall be a 1,000-gallon concrete single compartment tank equipped with effluent pump with float and high-water alarm. A timer shall dose over a 24-hour period, instead of on demand.

(CHAPTER 8 TANKS)

(SECTION 802 SEPTIC TANKS AND OTHER TREATMENT TANKS)

802.1 General. Septic tanks shall be fabricated or constructed of monolithic concrete, fiberglass or an approved material. Tanks shall be watertight and fabricated to constitute an individual structure, and shall be designed and constructed to withstand anticipated loads. The design of prefabricated septic tanks shall be approved. Plans for site constructed concrete tanks shall be approved prior to construction.

802.2 Design of septic tanks. Septic tanks shall conform to the design standards set out in 19 CSR 20-3.060(4), as currently promulgated or as amended hereafter.

802.7.1 Sizing of tank. The minimum liquid capacity for one- and two-family dwellings shall be in accordance with Table 802.7.1.

TABLE 802.7.1
SEPTIC TANK CAPACITY FOR ONE- AND TWO-FAMILY DWELLINGS

NUMBER OF BEDROOMS	SEPTIC TANK (gallons)
1 - 3	1,000
4	1,250
5	1,500
6 or more	See footnote a

For SI: 1 gallon = 3.785 L.
a. For six (6) or more bedrooms, the septic tank shall be sized on the basis similar to an establishment as set out in 19 CSR 20-3.060(4)(B)17.

802.7.2 Other buildings. For buildings, the liquid capacity shall be increased above the 750-gallon (2839 L) minimum as established in Table 802.7.1. In buildings with kitchen or laundry waste, the tank capacity shall be increased to receive the anticipated volume for a 24-hour period from the kitchen or laundry or both. The liquid capacities established in ~~Table 802.7.2~~ Table 2A "Quantities of Domestic Sewage Flows" in Section B 19 CSR 20-3.060 do not include employees.

Exception: One- or two-family dwellings.

TABLE 802.7.2 ADDITIONAL CAPACITY FOR OTHER BUILDINGS. DELETED.

802.8 Installation. Septic and other treatment tanks shall be located with a horizontal distance not less than specified in Table 1 "Minimum Set-Back Distances" in 19 CSR 20-3.060(4), as currently promulgated or as amended hereafter, except that for new construction (a) sewage tanks shall be 100 feet from any private water supply and (b) both sewage tanks and absorption fields (disposal areas) shall be 30 feet from any property line. Tanks installed in ground water shall be securely anchored. A 3-inch-thick (76 mm) compacted bedding shall be provided for all septic and other treatment tank installations. The bedding material shall be sand, gravel, granite, limerock or other noncorrosive materials of such size that the material passes through a 0.5-inch (12.7 mm) screen.

TABLE 802.8 MINIMUM HORIZONTAL SEPARATION DISTANCES FOR TREATMENT TANKS. DELETE.

802.11.1 Capacity sizing. The working capacity of the dosing or pumping chamber shall be sized to permit automatic discharge of the total daily sewage flow with discharge occurring not more than four times per 24 hours. Minimum capacity of a dosing chamber shall be 1,000 gallons (3790 L) and a space shall be provided between the bottom of the pump and floor of the dosing or pumping chamber. A dosing chamber shall have a 1-day holding capacity located above the high-water alarm for one- and two-family dwellings based 120 gallons (455 L) per day per bedroom, or in the case of other buildings, in accordance with Section 802.7. For one- and two-family dwellings, pump chambers shall at a minimum be 1,000-gallon, single compartment, time-dosed tanks. Where the total developed length of distribution piping exceeds 1,000 feet (305 m), the dosing or pumping chamber shall have two siphons or pumps dosing alternately and serving one-half of the soil absorption system.

TABLE 802.11.1 PUMP CHAMBER SIZES. DELETED.

TABLE 903.1(3) DESIGN CRITERIA FOR A THREE-BEDROOM HOME FOR A MOUND ON A 0- TO 6-PERCENT SLOPE WITH LOADING RATES OF 450 GALLONS PER DAY FOR SLOWLY PERMEABLE SOIL. DELETED.

TABLE 903.1(4) DESIGN CRITERIA FOR A FOUR-BEDROOM HOME FOR A MOUND ON A 0- TO 6-PERCENT SLOPE WITH LOADING RATES OF 600 GALLONS PER DAY FOR SLOWLY PERMEABLE SOIL. DELETED.

TABLE 903.1(5) DESIGN CRITERIA FOR A ONE-BEDROOM HOME FOR A MOUND ON A 0- TO 12-PERCENT SLOPE WITH LOADING RATES OF 150 GALLONS PER DAY FOR SLOWLY PERMEABLE SOIL OVER BEDROCK. DELETED.

TABLE 903.1(6) DESIGN CRITERIA FOR A TWO-BEDROOM HOME FOR A MOUND ON A 0- TO 12-PERCENT SLOPE WITH LOADING RATES OF 300 GALLONS PER DAY FOR SLOWLY PERMEABLE SOIL OVER BEDROCK. DELETED.

TABLE 903.1(7) DESIGN CRITERIA FOR A THREE-BEDROOM HOME FOR A MOUND ON A 0- TO 12-PERCENT SLOPE WITH LOADING RATES OF 450 GALLONS PER DAY FOR SLOWLY PERMEABLE SOIL OVER BEDROCK. DELETED.

TABLE 903.1(8) DESIGN CRITERIA FOR A FOUR-BEDROOM HOME FOR A MOUND ON A 0- TO 12-PERCENT SLOPE WITH LOADING RATES OF 600 GALLONS PER DAY FOR SLOWLY PERMEABLE SOIL OVER BEDROCK. DELETED.

TABLE 903.1(9) DESIGN CRITERIA FOR A ONE-BEDROOM HOME FOR A MOUND ON A 0- TO 12-PERCENT SLOPE WITH LOADING RATES OF 150 GALLONS PER DAY FOR SLOWLY PERMEABLE SOIL WITH A HIGH WATER TABLE. DELETED.

TABLE 903.1(10) DESIGN CRITERIA FOR A TWO-BEDROOM HOME FOR A MOUND ON A 0- TO 12-PERCENT SLOPE WITH LOADING RATES OF 300 GALLONS PER DAY FOR SLOWLY PERMEABLE SOIL WITH A HIGH WATER TABLE. DELETED.

TABLE 903.1(11) DESIGN CRITERIA FOR A THREE-BEDROOM HOME FOR A MOUND ON A 0- TO 12-PERCENT SLOPE WITH LOADING RATES OF 450 GALLONS PER DAY FOR SLOWLY PERMEABLE SOIL WITH A HIGH WATER TABLE. DELETED.

TABLE 903.1(12) DESIGN CRITERIA FOR A FOUR-BEDROOM HOME FOR A MOUND ON A 0- TO 12-PERCENT SLOPE WITH LOADING RATES OF 600 GALLONS PER DAY FOR SLOWLY PERMEABLE SOIL WITH A HIGH WATER TABLE. DELETED.

TABLE 903.5.5 DOWNSLOPE AND UPSLOPE WIDTH CORRECTIONS FOR MOUNDS ON SLOPING SITES. DELETED.

TABLE 903.6 INFILTRATIVE CAPACITY OF NATURAL SOIL. DELETED.

106.5. Private Sewage Disposal Permitting.

A. Prior to the transfer of ownership of any property served by a private sewage disposal system and/or private well, the seller shall have the private sewage disposal system and/or private well inspected for compliance with this Code and with the other standards enumerated in Section 626.020, Ordinances of St. Charles County, Missouri. The inspections shall be conducted by a third-party inspector licensed by St. Charles County. Inspection fees shall be the responsibility of the seller. All violations found at the time of inspection shall be corrected by either the seller or the buyer. If the buyer accepts responsibility to correct the violations, the buyer must meet the following requirements:

1. The buyer must sign an affidavit accepting responsibility for correcting violations and deliver that affidavit to the St. Charles County Division of Building and Code Enforcement; and

2. Either the buyer or seller must establish an escrow account as provided by law in which is deposited a fund sufficient to cover the costs of correcting violations, as determined by the Director of the St. Charles County Division of Building and Code Enforcement based on bids or other documentation provided by the buyer or seller. That escrow account shall be established pursuant to an escrow or lender's agreement prepared on a form to be developed and supplied by the Director of the St. Charles County Division of Building and Code Enforcement and complying substantially with forms authorized by St. Charles County Ordinance No. 93-44. The Director shall release escrow funds only when the private sewage disposal system and/or private well are brought into compliance with applicable codes.

B. A twenty dollar ($20.00) fee shall be assessed by the St. Charles County Division of Building and Code Enforcement for its review of the inspection report and all the actions it will have to take and paperwork it will have to process to determine that the subject system complies with this code, and such fee shall be paid to the St. Charles County Division of Building and Code Enforcement at the time St. Charles County Division of Building and Code Enforcement receives the inspection report and prior to it taking any action or processing any paperwork.

SECTION 13. 2021 INTERNATIONAL ENERGY CONSERVATION CODE.

The City hereby adopts by this reference the 2021 International Energy Conservation Code with the following amendments by additions, insertions, deletions and changes to read as follows:

(CHAPTER 1 [CE] SCOPE AND ADMINISTRATION)

(SECTION C101 SCOPE AND GENERAL REQUIREMENTS)

C101.1 Title. This code shall be known as the Energy Conservation Code of the City of Flint Hill, Missouri, and shall be cited as such. It is referred to herein as "this code."

(SECTION C103 CONSTRUCTION DOCUMENTS)

C103.1 General. Construction documents and other data shall be submitted as required by the Building Inspector, with each application for a permit. The Building Inspector shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist, the Building Inspector is authorized to require necessary construction documents to be prepared by a registered design professional.

> Exception: The Building Inspector shall have the authority to waive the submission of construction documents or other supporting data if the Building Inspector determines they are not necessary to confirm compliance with this code.

C103.1.2 Electronic submission. Where design documents including, but not limited to, plot plans, site plans, design drawings, specifications, etc., are originally created electronically, the Building Inspector is authorized to require electronic submittal of documents in a portable document format (PDF) or similar format for review. Where design documents were originally prepared on paper and are submitted in a paper form, the Building Inspector is authorized to charge a fee for converting those drawings to PDF equal to the cost incurred by City recreating the document and not to exceed more than one (1) dollar per page.

> Exception: Where submittal documents were originally prepared by hand and are 11 inches by 17 inches or less, the fee for document conversion shall not be charged.

(SECTION C109 STOP WORK ORDER)

C109.2 Issuance. The stop work order shall be in writing and shall be given to the owner of the property, the owner's authorized agent or the person performing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order and the conditions under which the cited work will is authorized to resume. Any person served with a stop work order shall pay an administrative penalty of up to two hundred fifty dollars ($250.00).

(SECTION C110 MEANS OF APPEALS)

C110.1 General. For the purposes of this code, all appeals shall be in accordance with the procedure established for the Building Code of the City of Flint, as provided in Section 5 of this Ordinance, at Section 113.1 through 113.5.

C110.2 Limitations on authority. DELETED.

C110.3 Qualifications. DELETED.

(CHAPTER 2 [CE] DEFINITIONS)

(SECTION C202 GENERAL DEFINITIONS)

RESIDENTIAL BUILDING. For this code, includes Group R-2, R-3, and R-4 buildings three stories or less in height above grade

(CHAPTER 1 [RE] SCOPE AND ADMINISTRATION)

(SECTION R101 SCOPE AND GENERAL REQUIREMENTS)

R101.1 Title. This code shall be known as the Energy Conservation Code of Flint Hill, Missouri, and shall be cited as such. It is referred to herein as "this code."

(SECTION R103 CONSTRUCTION DOCUMENTS)

R103.1 General. Construction documents and other data shall be submitted as required by the Building Inspector, with each application for a permit. The Building Inspector shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist, the Building Inspector is authorized to require necessary construction documents to be prepared by a registered design professional.

> Exception: The Building Inspector official shall have the authority to waive the submission of construction documents or other supporting data if the Building Inspector determines they are not necessary to confirm compliance with this code.

R103.1.2 Electronic submission. Where design documents including, but not limited to, plot plans, site plans, design drawings, specifications, etc. are originally created electronically, the Building Inspector is authorized to require electronic submittal of documents in a portable document format (PDF) or similar format for review. Where design documents were originally prepared on paper and are submitted in a paper form, the Building Inspector is authorized to charge a fee for converting those drawings to PDF equal to the cost incurred by City recreating the document and not to exceed more than one (1) dollar per page.

> Exception: Where submittal documents were originally prepared by hand and are 11 inches by 17 inches or less, the fee for document conversion shall not be charged.

(SECTION R109 STOP WORK ORDER)

R109.2 Issuance. The stop work order shall be in writing and shall be given to the owner of the property, the owner's authorized agent or the person performing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order and the conditions under which the cited work will is authorized to resume. Any person served with a stop work order shall pay an administrative penalty of up to two hundred fifty dollars ($250.00).

(SECTION R110 MEANS OF APPEALS)

R110.1 General. For the purposes of this code, all appeals shall be in accordance with the procedure established for the Building Code of the City of Flint Hill County, Missouri.

R110.2 Limitations on authority. DELETED.

R110.3 Qualifications. DELETED.

(CHAPTER 2 [RE] DEFINITIONS)

(SECTION R202 GENERAL DEFINITIONS)

RESIDENTIAL BUILDING.
For this code, includes Group R-2, R-3, and R-4 buildings three stories or less in height above grade.

(CHAPTER 4 [RE] RESIDENTIAL ENERGY EFFICIENCY)

(SECTION R402 BUILDING THERMAL ENVELOPE)

Replace Table R402.1.3 Entitled "Insulation Minimum R-Values And Fenestration Requirements By Component" With The Table Provided Below:

TABLE R402.1.3
INSULATION MINIMUM R-VALUES AND FENESTRATION REQUIREMENTS BY COMPONENT[a]

CLIMATE ZONE	FENESTRATION U-FACTOR[b, i]	SKYLIGHT[b] U-FACTOR	GLAZED FENESTRATION SHGC[b, e]	CEILING R-VALUE	WOOD FRAME WALL R-VALUE[g]	MASS WALL R-VALUE[h]	FLOOR R-VALUE	BASEMENT[c, g] WALL R-VALUE	SLAB[d] R-VALUE & DEPTH	CRAWL SPACE[c, g] WALL R-VALUE
4A	0.35	0.6	NR	38	13	10-May	19	10ci or 13[j]	10, 2 ft	13-Oct

For SI: 1 foot = 304.8 mm.
NR = Not Required.
ci = continuous insulation.
a. *R*-values are minimums. *U*-factors and SHGC are maximums. Where insulation is installed in a cavity that is less than the label or design thickness of the insulation, the installed *R*-value of the insulation shall be not less than the *R*-value specified in the table.
b. The fenestration *U*-factor column excludes skylights. The SHGC column applies to all glazed fenestration.
Exception: In Climate Zones 0 through 3, skylights shall be permitted to be excluded from glazed fenestration SHGC requirements provided that the SHGC for such skylights does not exceed 0.30.
c. "5ci or 13" means R-5 continuous insulation (ci) on the interior or exterior surface of the wall or R-13 cavity insulation on the interior side of the wall. "10ci or 13" means R-10 continuous insulation (ci) on the interior or exterior surface of the wall or R-13 cavity insulation on the interior side of the wall. "15ci or 19 or 13&5ci" means R-15 continuous insulation (ci) on the interior or exterior surface of the wall; or R-19 cavity insulation on the interior side of the wall; or R-13 cavity insulation on the interior of the wall in addition to R-5 continuous insulation on the interior or exterior surface of the wall.

d. R-5 insulation shall be provided under the full slab area of a heated slab in addition to the required slab edge insulation *R*-value for slabs. as indicated in the table. The slab-edge insulation for heated slabs shall not be required to extend below the slab.
e. There are no SHGC requirements in the Marine Zone.
f. Basement wall insulation is not required in Warm Humid locations as defined by Figure R301.1 and Table R301.1.
g. The first value is cavity insulation; the second value is continuous insulation. Therefore, as an example, "13&5" means R-13 cavity insulation plus R-5 continuous insulation.
h. Mass walls shall be in accordance with Section R402.2.5. The second *R*-value applies where more than half of the insulation is on the interior of the mass wall.
i. A maximum *U*-factor of 0.32 shall apply in Climate Zones 3 through 8 to vertical fenestration products installed in buildings located either:
1. Above 4,000 feet in elevation, or
2. In windborne debris regions where protection of openings is required by Section R301.2.1.2 of the *International Residential Code*.
j. Exception: Unfinished basements may have up to a maximum of 20 percent of the total basement wall area exposed above the outside finished grade/ground level as uninsulated concrete foundation walls. The foundation wall area above the outside grade/ground level that may be uninsulated is determined by the formula [.20 times the basement wall height of all walls (including insulated exterior frame walls for walkout basements and walls common to both basement and attached garages) times the perimeter of these basement walls]. In unfinished areas, the basement foundation wall insulation shall extend down to the basement floor slab or to a minimum of 24 inches below outside finished grade when the grade is above the floor slab elevation.

SECTION 14. 2021 INTERNATIONAL FIRE CODE

The City hereby adopts by this reference the 2021 International Fire Code with the following amendments by additions, insertions, deletions and changes to read as follows:

(CHAPTER 1 SCOPE AND ADMINISTRATION)

(SECTION 101 SCOPE AND GENERAL REQUIREMENTS)

101.1 Title. These regulations shall be known as the Fire Code of the City of Flint Hill, Missouri, hereinafter referred to as "this code."

(SECTION 103 CODE COMPLIANCE AGENCY)

103.1 Creation of enforcement agency. The City Building Department is hereby created and the official in charge thereof shall be known as the Building Inspector. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

103.2 Appointment. The Building Inspector shall be appointed as provided by ordinance.

(SECTION 105 PERMITS)

105.6 Required construction permits. The Building Inspector is authorized to issue construction permits for work as set forth in Sections 105.6.1 through 105.6.24. The term "construction permit" shall mean building permit and shall follow the requirements of Section 105 of the International Building Code in addition to the requirements of this code.

(SECTION 106 CONSTRUCTION DOCUMENTS)

106.1 Submittals. Construction documents and supporting data shall be submitted in such form and detail as required by the Building Inspector. The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.

> Exception: The Building Inspector is authorized to waive the submission of construction documents and supporting data not required to be prepared by a registered design professional if it is found that the nature of the work applied for is such that review of construction documents is not necessary to obtain compliance with this code.

106.1.2 Electronic submission. Where design documents including, but not limited to, plot plans, site plans, design drawings, specifications, etc., are originally created electronically, the Building Inspector is authorized to require electronic submittal of documents in a portable document format (PDF) or similar format for review. Where design documents were originally prepared on paper and are submitted in a paper form, the Building Inspector is authorized to charge a fee for converting those drawings to PDF equal to the cost incurred by City recreating the document and not to exceed more than one (1) dollar per page.

> Exception: Where submittal documents were originally prepared by hand and are 11 inches by 17 inches or less, the fee for document conversion shall not be charged.

(SECTION 111 MEANS OF APPEALS)

111.1 General. For the purposes of this code, all appeals shall be in accordance with the procedure established for the Building Code of Flint Hill, Missouri, as provided in Section 5 of this Ordinance, at Section 113.1 through 113.5.

111.2 Limitations on authority. DELETED.

111.3 Qualifications. DELETED.

111.4 Administration. DELETED.

(SECTION 112 VIOLATIONS)

112.4 Violation penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire Building Inspector, or of a permit or certificate used under the provisions of this code, shall be guilty of a misdemeanor and upon conviction thereof shall be punishable by a fine of not more than five hundred ($500.00) dollars. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

(SECTION 113 STOP WORK ORDER)

113.2 Issuance. The stop work order shall be in writing and shall be given to the owner of the property involved, the owner's authorized agent or the person performing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order and the conditions under which the cited work will be permitted to resume. Any person served with a stop work order shall pay an administrative penalty of up to two hundred fifty dollars ($250.00).

(CHAPTER 11 CONSTRUCTION REQUIREMENTS FOR EXISTING BUILDINGS)

(SECTION 1103 FIRE SAFETY REQUIREMENTS FOR EXISTING BUILDINGS)

1103.5.3 Group I-2, Condition 2. In addition to the requirements of Section 1103.5.2, existing buildings of Group I-2, Condition 2 occupancy shall be equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1. The automatic sprinkler system shall be installed as established by the local fire district and the State of Missouri.

(CHAPTER 33 FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION)
(SECTION 3307 FLAMMABLE GASES)

3307.2.1 Pipe cleaning and purging. The cleaning and purging of flammable gas piping systems, including cleaning new or existing piping systems, purging piping systems into service and purging piping systems out of service, shall comply with NFPA 56.

Exceptions:

1. Compressed gas piping systems other than fuel gas piping systems where in accordance with Chapter 53.
2. Piping systems regulated by the International Fuel Gas Code.
3. Liquefied petroleum gas systems in accordance with Chapter 61.
4. Cleaning and purging of refrigerant piping systems shall comply with the International Mechanical Code.

(CHAPTER 50 HAZARDOUS MATERIALS–GENERAL PROVISIONS)
(SECTION 5003 GENERAL REQUIREMENTS)

TABLE 5003.1.1(1)
MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA
OF HAZARDOUS MATERIALS POSING A PHYSICAL
HAZARD[a, j, m, n, p]

MATERIAL	CLASS	GROUP WHEN THE MAXIMUM ALLOWABLE QUANTITY IS EXCEEDED	STORAGE[b]			USE-CLOSED SYSTEMS[b]			USE-OPEN SYSTEMS[b]	
			Solid pounds(cubic feet)	Liquid gallons (pounds)	Gas (cubic feet at NTP)	Solid pounds(cubic feet)	Liquid gallons (pounds)	Gas (cubic feet at NTP)	Solid pounds(cubic feet)	Liquid gallons (pounds)
Combustible dust	NA	H-2	SeeNote q	NA	NA	See Note q	NA	NA	See Note q	NA
Combustible fiber[q]	Loose	H-3	(100)	NA	NA	(100)	NA	NA	(20)	NA
	Baled[o]		(1,000)			(1,000)			(200)	
	II	H-2 or H-3	NA	120d, e	NA	NA	120[d]	NA	NA	30[d]

Combustible liquid[c, i]	IIIA	H-2 or H-3		330[d, e]			330[d]			80[d]
	IIIB	NA		13,200[e, f]			13,200[f]			3,300[f]
Cryogenic flammable	NA	H-2	NA	45[d]	NA	NA	45[d]	NA	NA	10[d]
Cryogenic inert	NA	NA	NA	NA	NL	NA	NA	NL	NA	NA
Cryogenic oxidizing	NA	H-3	NA	45[d]	NA	NA	45[d]	NA	NA	10[d]
	Division 1.1	H-1	1e, g	(1)e, g	NA	0.25[g]	(0.25)[g]	NA	0.25[g]	(0.25)[g]
	Division 1.2	H-1	1e, g	(1)e, g		0.25[g]	(0.25)[g]		0.25[g]	(0.25)[g]
	Division 1.3	H-1 or H-2	5e, g	(5)e, g		1g	(1)[g]		1g	(1)[g]
Explosives	Division 1.4	H-3	50e, g	(50)[e, g]		50[g]	(50)[g]		NA	NA
	Division 1.4G	H-3	125e, l	NA		NA	NA		NA	NA
	Division 1.5	H-1	1e, g	(1)e, g		0.25[g]	(0.25)[g]		0.25[g]	(0.25)[g]
	Division 1.6	H-1	1e, g	NA		NA	NA		NA	NA
	Gaseous	H-2								
			NA	NA		NA	NA			
Flammable gas	1A and 1B (High BV)[r]				1,000[d,e]			1,000[d,e]		
	B (Low BV)[r]				162,000[d,e]			162,000[d,e]	NA	NA
	Liquefied				NA			NA		
	1A and			(150)[d,e]			(150)[d,e]			
	1B (High BV)[r]									
	1B (Low BV)[r]			(10,000)[d,e]			(10,000)[d,e]			
Flammable liquid[c]	IA	H-2 or H-3	NA	30[d, e]	NA	NA	30[d]	NA	NA 10[d]	
	IB and IC			120[d, e]			120[d]			30[d]
Flammable liquid, combination (IA, IB, IC)	NA	H-2 or H-3	NA	120[d, e, h]	NA	NA	120[d, h]	NA	NA	30[d, h]
Flammable solid	NA	H-3	125[d, e]	NA	NA	125[d]	NA	NA	25[d]	NA
Inert gas	Gaseous	NA	NA	NA	NL	NA	NA	NL	NA	NA
	Liquefied	NA	NA	NA	NL	NA	NA	NL	NA	NA
	UD	H-1	1[e, g]	(1)[e, g]	NA	0.25[g]	(0.25)[g]	NA	0.25[g]	(0.25)[g]
	I	H-2	5[d, e]	(5)[d, e]		1[d]	(1)[d]		1[d]	(1)[d]

Organic peroxide		II	H-3	50[d, e]	(50)[d, e]		50[d]	(50)[d]		10[d]	(10)[d]
		III	H-3	125[d, e]	(125)[d, e]		125[d]	(125)[d]		25[d]	(25)[d]
		IV	NA	NL	NL		NL	NL		NL	NL
		V	NA	NL	NL		NL	NL		NL	NL
Oxidizer	4		H-1	1[g]	(1)[e, g]	NA	0.25[g]	(0.25)[g]	NA	0.25[g]	(0.25)[g]
	3[k]		H-2 or H-3	10[d, e]	(10)[d, e]		2[d]	(2)[d]		2[d]	(2)[d]
	2		H-3	250[d, e]	(250)[d, e]		250[d]	(250)[d]		50[d]	(50)[d]
	1		NA	4,000[e, f]	(4,000)[e, f]		4,000[f]	(4,000)[f]		1,000[f]	(1,000)[f]
Oxidizing gas	Gaseous		H-3	NA	NA	1,500[d,e]	NA	NA	1,500[d,e]	NA	NA
	Liquefied				(150)[d, e]	NA		(150)[d,e]	NA		
Pyrophoric	NA		H-2	4[e, g]	(4)[e, g]	50[e, g]	1[g]	(1)[g]	10[e, g]	0	0
		4	H-1	1[e, g]	(1)[e, g]	10[e, g]	0.25[g]	(0.25)[g]	2[e, g]	0.25[g]	(0.25)[g]
Unstable (reactive)		3	H-1 or H-2	5[d, e]	(5)[d, e]	50[d, e]	1[d]	(1)[d]	10[d, e]	1[d]	(1)[d]
		2	H-3	50[d, e]	(50)[d, e]	750[d, e]	50[d]	(50)[d]	750[d, e]	10[d]	(10)[d]
		1	NA	NL	NL	NL	NL	NL	NL	NL	NL
		3	H-2	5[d, e]	(5)[d, e]	NA	5[d]	(5)[d]	NA	1[d]	(1)[d]
Water reactive		2	H-3	50[d, e]	(50)[d, e]		50[d]	(50)[d]		10[d]	(10)[d]
		1	NA	NL	NL		NL	NL		NL	NL

For SI: 1 cubic foot = 0.028 m3, 1 pound = 0.454 kg, 1 gallon = 3.785 L.

NL = Not Limited; NA = Not Applicable; UD = Unclassified Detonable.

a. For use of control areas, see Section 414.2.

b. The aggregate quantity in use and storage shall not exceed the quantity specified for storage.

c. The quantities of alcoholic beverages in retail and wholesale sales occupancies shall not be limited provided the liquids are packaged in individual containers not exceeding 1.3 gallons. In retail and wholesale sales occupancies, the quantities of medicines, foodstuffs or consumer products, and cosmetics containing not more than 50 percent by volume of water-miscible liquids with the remainder of the solutions not being flammable, shall not be limited, provided that such materials are packaged in individual containers not exceeding 1.3 gallons.

d. Maximum allowable quantities shall be increased 100 percent in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1. Where Note e also applies, the increase for both notes shall be applied accumulatively.

e. Maximum allowable quantities shall be increased 100 percent when stored in approved storage cabinets, day boxes, gas cabinets, gas rooms or exhausted enclosures or in listed safety cans in accordance with Section 5003.9.10 of the *International Fire Code*. Where Note d also applies, the increase for both notes shall be applied accumulatively.

f. Quantities shall not be limited in a building equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

g. Allowed only in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

h. Containing not more than the maximum allowable quantity per control area of Class IA, IB or IC flammable liquids.

i. The maximum allowable quantity shall not apply to fuel oil storage complying with Section 605.4.2 of the *International Fire Code*.

j. Quantities in parentheses indicate quantity units in parentheses at the head of each column.

k. A maximum quantity of 220 pounds of solid or 22 gallons of liquid Class 3 oxidizers is allowed when such materials are necessary for maintenance purposes, operation or sanitation of equipment when the storage containers and the manner of storage are approved.

l. Net weight of the pyrotechnic composition of the fireworks. Where the net weight of the pyrotechnic composition of the fireworks is not known, 25 percent of the gross weight of the fireworks, including packaging, shall be used.

m. For gallons of liquids, divide the amount in pounds by 10 in accordance with Section 5003.1.2 of the *International Fire Code*.

n. For storage and display quantities in Group M and storage quantities in Group S occupancies complying with Section 414.2.5, see Tables 414.2.5(1) and 414.2.5(2).
o. Densely packed baled cotton that complies with the packing requirements of ISO 8115 shall not be included in this material class.
p. The following shall not be included in determining the maximum allowable quantities:

1. Liquid or gaseous fuel in fuel tanks on vehicles.
2. Liquid or gaseous fuel in fuel tanks on motorized equipment operated in accordance with the *International Fire Code*.
3. Gaseous fuels in piping systems and fixed appliances regulated by the *International Fuel Gas Code*.
4. Liquid fuels in piping systems and fixed appliances regulated by the *International Mechanical Code*.

5. Alcohol-based hand rubs classified as Class I or II liquids in dispensers that are installed in accordance with Sections 5705.5 and 5705.5.1 of the *International Fire Code*. The location of the alcohol-based hand rub (ABHR) dispensers shall be provided in the construction documents.
q. Where manufactured, generated or used in such a manner that the concentration and conditions create a fire or explosion hazard based on information prepared in accordance with Section 414.1.3.
r. “High BV” Category 1B flammable gas has a burning velocity greater than 3.9 inches per second (10 cm/s). "Low BV" Category 1B flammable gas has a burning velocity of 3.9 inches per second (10 cm/s) or less.

TABLE 5003.1.1(3)
MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA OF HAZARDOUS MATERIALS POSING A PHYSICAL HAZARD IN AN OUTDOOR CONTROL AREA[a, b, c, d]

MATERIAL	CLASS	STORAGE[b]			USE-CLOSED SYSTEMS[b]			USE-OPEN SYSTEMS[b]	
		Solid pounds (cubic feet)	Liquid gallons (pounds)[d]	Gas cubic feet at NTP	Solid pounds (cubic feet)	Liquid gallons (pounds)[d]	Gas cubic feet at NTP	Solid pounds (cubic feet)	Liquid gallons (pounds)[d]
Gaseous									
Flammable gas	1A and 1B (High BV)[e]	Not Applicable	Not Applicable	3,000	Not Applicable	Not Applicable	1,500	Not Applicable	Not Applicable
	1B (Low BV)[e]			195,000			97,500		
	Liquefied								
	1A and 1B (High BV)[e]	Not Applicable	(300)	Not Applicable	Not Applicable	(150)	Not Applicable	Not Applicable	Not Applicable
	1B (Low BV)[e]		20,000			10,000			
Flammable solid	Not Applicable	500	Not Applicable	Not Applicable	250	Not Applicable	Not Applicable	50	Not Applicable
Inert Gas Cryogenic inert	Gaseous	Not Applicable	Not Applicable	Not Limited	Not Applicable	Not Applicable	Not Limited	Not Applicable	Not Applicable
	Liquefied	Not Applicable	Not Applicable	Not Limited	Not Applicable	Not Applicable	Not Limited	Not Applicable	Not Applicable
	Not Applicable	Not Applicable	Not Applicable		Not Applicable	Not Applicable		Not Applicable	Not Applicable
Organic peroxide	Unclassified Detonable	1	(1)	Not Applicable	0.25	(0.25)	Not Applicable	0.25	(0.25)
Organic peroxide	I	20	(20)	Not Applicable	10	(10)	Not Applicable	2	(2)
	II	200	(200)		100	(100)		20	(20)
	III	500	(500)		250	(250)		50	(50)
	IV	Not Limited	Not Limited		Not Limited	Not Limited		Not Limited	Not Limited
	V	Not Limited	Not Limited		Not Limited	Not Limited		Not Limited	Not Limited

Oxidizer	4 3 2 1	2 40 1,000 Not Limited	(2) (40) (1,000) Not Limited	Not Applicable	1 20 500 Not Limited	(1) (20) (500) Not Limited	Not Applicable	0.25 4 100 Not Limited	(0.25) (4) (100) Not Limited
Oxidizing gas	Gaseous Liquefied	Not Applicable	Not Applicable (600)	6,000 Not Applicable	Not Applicable	Not Applicable (300)	1,500 Not Applicable	Not Applicable	Not Applicable
Pyrophoric materials	Not Applicable	8	(8)	100	4	(4)	10	0	0
Unstable (reactive)	4 3 2 1	2 20 200 Not Limited	(2) (20) (200) Not Limited	20 200 1,000 1,500	1 10 100 Not Limited	(1) (10) (100) Not Limited	2 10 250 Not Limited	0.25 1 10 Not Limited	(0.25) (1) (10) Not Limited
Water reactive	3 2 1	20 200 Not Limited	(20) (200) Not Limited	Not Applicable	10 100 Not Limited	(10) (100) Not Limited	Not Applicable	1 10 Not Limited	(1) (10) Not Limited

For SI: 1 pound = 0.454 kg, 1 gallon = 3.785 L, 1 cubic foot = 0.02832 m3.

a. For gallons of liquids, divide the amount in pounds by 10 in accordance with Section 5003.1.2.

b. The aggregate quantities in storage and use shall not exceed the quantity listed for storage.

c. The aggregate quantity of nonflammable solid and nonflammable or noncombustible liquid hazardous materials allowed in outdoor storage per single property under the same ownership or control used for retail or wholesale sales is allowed to exceed the maximum allowable quantity per control area where such storage is in accordance with Section 5003.11.

d. Quantities in parentheses indicate quantity units in parentheses at the head of each column.

e. “High BV” Category 1B flammable gas has a burning velocity greater than 3.9 inches per second (10 cm/s). "Low BV" Category 1B flammable gas has a burning velocity of 3.9 inches per second (10 cm/s) or less.

5003.8.3.5 Hazardous materials in Group M display and storage areas and in Group S storage areas. Hazardous materials located in Group M and Group S occupancies shall be in accordance with Sections 5003.8.3.5.1 through 5003.8.3.5.4.

5003.8.3.5.4 Flammable gas. The aggregate quantity of Category 1B flammable gas having a burning velocity of 3.9 in/s (10 cm/s) or less stored and displayed within a single control area of a Group M occupancy, in an outdoor control area or stored in a single control area of a Group S occupancy is allowed to exceed the maximum allowable quantities per control area specified in Table 5003.1.1(1) without classifying the building or use as a Group H occupancy, provided that the materials are stored and displayed in accordance with Section 5003.11.2.

5003.11 Maximum allowable quantity for Group M storage and display and Group S storage. The aggregate quantity of hazardous materials stored and displayed within a single control area of a Group M occupancy, or an outdoor control area, or stored in a single control area of a Group S occupancy, is allowed to exceed the maximum allowable quantity per control area indicated in Section 5003.1 where in accordance with Sections 5003.11.1 through 5003.11.3.11and 5003.11.2.

5003.11.1 Nonflammable solid and nonflammable or noncombustible liquid hazardous materials. The aggregate amount of nonflammable solid and nonflammable or noncombustible liquid hazardous materials stored and displayed within a single control area of a Group M occupancy, or an outdoor

control area, or stored in a single control area of a Group S occupancy shall not exceed the amounts set forth in Table 5003.11.1.

5003.11.1.1 Storage and display. Storage and display shall be in accordance with Sections 5003.11.1.1.1 through 5003.11.1.1.11.

5003.11.1.1.1 Density. Storage and display of solids shall not exceed 200 pounds per square foot (976 kg/m2) of floor area actually occupied by solid merchandise. Storage and display of liquids shall not exceed 20 gallons per square foot (0.50 L/m2) of floor area actually occupied by liquid merchandise.

5003.11.1.1.2 Storage and display height. Display height shall not exceed 6 feet (1829 mm) above the finished floor in display areas of Group M occupancies. Storage height shall not exceed 8 feet (2438 mm) above the finished floor in storage areas of Group M and Group S occupancies.

5003.11.1.1.3 Container location. Individual containers less than 5 gallons (19 L) or less than 25 pounds (11 kg) shall be stored or displayed on pallets, racks or shelves.

5003.11.1.1.4 Racks and shelves. Racks and shelves used for storage or display shall be in accordance with Section 5003.9.9.

5003.11.1.1.5 Container type. Containers shall be approved for the intended use and identified as to their content.

5003.11.1.1.6 Container size. Individual containers shall not exceed 100 pounds (45 kg) for solids or 10 gallons (38 L) for liquids in storage and display areas.

5003.11.1.1.7 Incompatible materials. Incompatible materials shall be separated in accordance with Section 5003.9.8.

5003.11.1.1.8 Floors. Floors shall be in accordance with Section 5004.12.

5003.11.1.1.9 Aisles. Aisles 4 feet (1219 mm) in width shall be maintained on three sides of the storage or display area.

5003.11.1.1.10 Signs. Hazard identification signs shall be provided in accordance with Section 5003.5.

5003.11.1.1.11 Storage plan. A storage plan illustrating the intended storage arrangement, including the location and dimensions of aisles, and storage racks shall be provided.

5003.11.2 Category 1B flammable gas with low burning velocity. The aggregate quantity of Category 1B flammable gas having a burning velocity of 3.9 in/s (10 cm/s) or less stored and displayed within a single control area of a Group M occupancy, in an outdoor control area or stored in a single control area of a Group S occupancy shall not exceed the amounts set forth in Table 5003.11.2.

TABLE 5003.11.2 MAXIMUM ALLOWABLE QUANTITY OF LOW BURNING VELOCITY CATEGORY 1B FLAMMABLE GAS IN GROUP M AND S

OCCUPANCIES PER CONTROL AREA[a]

CATEGORY 1B (Low BV)d	SPRINKLERED IN ACCORDANCE WITH NOTE B	NONSPRINKLERED
Gaseous	39,000 ft3	195,000 ft3
Liquified	40,000 lbc	20,000 lb

For SI: 1 pound = 0.454 kg, 1 cubic foot = 0.028 m3.
a. Control areas shall be separated from each other by not less than a 1-hour fire barrier.
b. The building shall be equipped throughout with an approved automatic sprinkler system with a minimum sprinkler design density of Ordinary Hazard Group 2 in the area where flammable gases are stored or displayed.
c. Where storage areas exceed 50,000 square feet in area, the maximum allowable quantities area is allowed to be increased by 2 percent for each 1,000 square feet of area in excess of 50,000 square feet, up to not more than 100 percent of the table amounts. Separation of control areas is not required. The aggregate amount shall not exceed 80,000 pounds.
d. "Low BV" Category 1B flammable gas has a burning velocity of 3.9 in/s (10 cm/s) or less.

(CHAPTER 57 FLAMMABLE AND COMBUSTIBLE LIQUIDS)

(SECTION 5704 STORAGE)

5704.2.9.6.1 Locations where above-ground tanks are prohibited. Storage of Class I and II liquids in above-ground tanks outside of buildings is prohibited as defined by the applicable ordinance of the fire district having competent jurisdiction.

(SECTION 5706 SPECIAL OPERATIONS)

5706.2.4.4 Locations where above-ground tanks are prohibited. The storage of Class I and II liquids in above-ground tanks is prohibited as defined by the applicable ordinance of the fire district having competent jurisdiction.

(CHAPTER 58 FLAMMABLE GASES AND FLAMMABLE CRYOGENIC FLUIDS)

(SECTION 5806 FLAMMABLE CRYOGENIC FLUIDS)

5806.2 Limitations. Storage of flammable cryogenic fluids in stationary containers outside of buildings is prohibited as defined by the applicable ordinance of the fire district having competent jurisdiction.

(CHAPTER 61 LIQUIFIED PETROLEUM GASES)

(SECTION 6104 LOCATION OF LP-GAS CONTAINERS)

6104.2 Maximum capacity within established limits. As defined by the applicable ordinance of the fire district having competent jurisdiction restricting the storage of liquefied petroleum gas for the protection of heavily populated or congested areas, the aggregate capacity of any one installation shall not exceed a water capacity of 2,000 gallons (7570 L).

SECTION 15. 2021 INTERNATIONAL SWIMMING POOL AND SPA CODE

The City hereby adopts by this reference the 2021 International Swimming Pool and Spa Code with the following amendments by additions, insertions, deletions and changes to read as follows:

(CHAPTER 1 SCOPE AND ADMINISTRATION)

(SECTION 101 SCOPE AND GENERAL REQUIREMENTS)

101.1 Title. These regulations shall be known as the Swimming Pool and Spa Code of the City of Flint Hill, Missouri, hereinafter referred to as "this code."

(SECTION 103 CODE COMPLIANCE AGENCY)

103.1 Creation of enforcement agency. The Building Department is hereby created and the official in charge thereof shall be known as the Building Inspector. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

103.2 Appointment. The Building Inspector shall be appointed as provided by ordinance.

(SECTION 105 PERMITS)

105.4.3 Expiration Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 180 days after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced.

105.4.3.1 Reinstatement. A permit that has expired may be reinstated where approved by the Building Inspector. The request for reinstatement shall be in writing and justifiable caused demonstrated.

105.4.4 Extensions. The Building Inspector is authorized to grant, in writing, one or more extensions of time for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

(SECTION 106 CONSTRUCTION DOCUMENTS)

106.1 General. Construction documents, engineering calculations, diagrams and other data shall be submitted sets as required by the Building Inspector , with each application for a permit. The Building Inspector shall require construction documents, computations and specifications to be prepared and designed by a registered design professional where required by state law. Where special conditions exist, the Building Inspector is authorized to require additional construction documents to be prepared by a registered design professional. Construction documents shall be drawn to scale and shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that the work conforms to the provisions of this code.

Exception: The Building Inspector shall have the authority to waive the submission of construction documents, calculations or other data if the nature of the work applied for is such that reviewing of

construction documents is not necessary to determine compliance with this code.

106.1.2 Electronic submission. Where design documents including, but not limited to, plot plans, site plans, design drawings, specifications, etc., are originally created electronically, the Building Inspector is authorized to require electronic submittal of documents in a portable document format (PDF) or similar format for review. Where design documents were originally prepared on paper and are submitted in a paper form, the Building Inspector is authorized to charge a fee for converting those drawings to PDF equal to the cost incurred by City recreating the document and not to exceed more than one (1) dollar per page.

Exception: Where submittal documents were originally prepared by hand and are 11 inches by 17 inches or less, the fee for document conversion shall not be charged.

(SECTION 111 MEANS OF APPEALS)

111.1 General. For the purposes of this code, all appeals shall be in accordance with the procedure established for the Building Code of the City of Flint Hill, Missouri, as provided in Section 5 of this Ordinance, at Section 113.1 through 113.5.

111.2 Limitations on authority. DELETED.

111.3 Qualifications. DELETED.

111.4 Administration. DELETED.

(SECTION 112 BOARD OF APPEALS)

112.1 Membership of board. DELETED..

(SECTION 113 VIOLATIONS)

113.4 Violation penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter or repair a pool or spa in violation of the approved construction documents or directive of the Building Inspector, or a permit or certificate issued under the provisions of this code, shall be guilty of a misdemeanor and upon conviction thereof shall be punishable by a fine of not more than five hundred ($500.00) dollars. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

(SECTION 114 STOP WORK ORDER)

114.2 Issuance. The stop work order shall be in writing and shall be given to the owner of the property involved, the owner's authorized agent or the person performing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order and the conditions under which the cited work will be permitted to resume. Any person served with a stop work order shall pay an administrative penalty of up to two hundred fifty dollars ($250.00).

SECTION 16. 2021 INTERNATIONAL PROPERTY MAINTENANCE CODE

The City hereby adopts by reference the 2021 International Property Maintenance Code, including Appendix A, with the following amendments by additions, insertions, deletions and changes to read as follows:

(CHAPTER 1 SCOPE AND ADMINISTRATION)

(SECTION 101 SCOPE AND GENERAL REQUIREMENTS)

1. Section 101.1. Title. These regulations shall be known as the Property Maintenance Code of the City of Flint Hill, Missouri, hereinafter referred to as "this code."

2.Section 101.2 Scope. The provisions of this code constitute the minimum requirements and standards for all residential and nonresidential premises, structures, equipment, and facilities for light, ventilation, space, heating, sanitation, sanitary maintenance, occupancy, protection from the elements, and safety from fire and other hazards; the responsibility of owners, an owner's authorized agent, operators, and occupants of such premises, structures, equipment, and facilities; and matters related to the administration of this code, including but not limited to enforcement and penalties.

Exception: Accessory structures on land categorized as agricultural by the St. Charles County Assessor shall be exempt from this code if the structure is used exclusively in connection with:

1. The regular and ongoing production, harvesting, storage, drying, or raising of crops, livestock, or related agricultural commodities; or

2. Conservation and hunting purposes, provided that the structure is not within 500 feet of land categorized as residential by the St. Charles County Assessor.

Notwithstanding any provision to the contrary, this code shall apply to an accessory structure on land categorized as agricultural by the St. Charles County Assessor if it is determined by the St. Charles County Division of Building and Code Enforcement that such structure poses a danger to the health or safety of persons or the public.

3. Section 102.3 Application of other codes. Repairs, additions or alterations to a structure, or changes of occupancy, shall be done in accordance with the procedures and provisions of the City's Building Code, Residential Code, Fuel Gas Code, Mechanical Code and Fire Code (NFPA 70). Nothing in this code shall be construed to cancel, modify or set aside any provision of the City's Zoning Ordinance.

(SECTION 103 CODE COMPLIANCE AGENCY)

4. Section 103.1 Creation of enforcement agency. The City has entered into an agreement with St. Charles County, Missouri, for enforcement of this code, appointing St. Charles County, Missouri, its agents and officers as the agent of the City for purposes of ensuring compliance with and enforcing the terms of this code. The Division of Building & Code Enforcement within the Department of Community Development has been created by St. Charles County Ordinance No. 25-084 and the official in charge thereof shall be known as the code official. The function of the Division of Building & Code Enforcement shall be the implementation, administration and enforcement of the provisions of this Code in accordance with and pursuant to the above-referenced agreement with St. Charles County, Missouri.

5. Section 103.2 Appointment. The code official shall be as provided by ordinance of St. Charles County, Missouri.

(SECTION 107 MEANS OF APPEALS)

6. Section 107.1 General. For the purposes of this code, all appeals shall be in accordance with the procedure established for the Building Code of St. Charles County, Missouri, in Section 113 of 500.100.

7. Section 107.2 DELETED.

8. Section 107.3 DELETED.

9. Section 107.4 DELETED.

(SECTION 108 BOARD OF APPEALS)

10. Section 108.1 Membership of board. The board of appeals shall consist of members as outlined in Article XV, Chapter 500 of the St. Charles County, MO adopting ordinance

(SECTION 109 VIOLATIONS)

11. Section 109.4 Violations penalties. Any person who shall violate a provision of this code, or fail to comply therewith, or with any of the requirements thereof, shall be prosecuted within the limits provided by state or local laws. Each day that a violation continues after due notice has been served shall be deemed a separate offense. Violations of this code are misdemeanors punishable by fines and subject to punishment pursuant to the following provisions:

1. Notwithstanding any other provision of this Code to the contrary, for a violation of this Property Maintenance Code, the court shall not assess a fine, if combined with the amount of court costs, totaling in excess of:

   1.1. A sum of $200.00, if the defendant has committed no property violations within 12 months prior to the violation for which the defendant is to be sentenced;

   1.2. A sum of $275.00, if the defendant has committed one property violation within 12 months prior to the violation for which the defendant is to be sentenced;

   1.3. A sum of $350.00, if the defendant has committed two property violations within 12 months prior to the violation for which the defendant is to be sentenced; or

   1.4. A sum of $450.00, if the defendant has committed three or more property violations within 12 months prior to the violation for which the defendant is to be sentenced;

2. A The court shall not sentence a person to confinement, except the court may sentence a person to confinement for any violation involving alcohol or controlled substances, violations endangering the

health or welfare of others, or eluding or giving false information to a law enforcement officer;

3. A person shall not be placed in confinement for failure to pay a fine unless such nonpayment violates terms of probation or unless the due process procedures mandated by Missouri Supreme Court Rule 37.65 or its successor rule are strictly followed by the court;

4. Court costs that apply shall be assessed against the defendant unless the court finds that the defendant is indigent based on standards set forth in determining such by the presiding judge of the circuit. Such standards shall reflect model rules and requirements to be developed by the Supreme Court; and

5. No court costs shall be assessed if the defendant is found to be indigent under subsection (4) of this section or if the case is dismissed.

6. Subject to the limitations on imposing fines and charging court costs if the defendant is found to be indigent under subsection (4) of this section and subject to the maximum fine and court costs limitations under subsection (1) of this section, the following minimum fine amounts shall be charged for a property violation:

6.1. A sum of $75.00, if the defendant has committed one violation of this Chapter within 12 months prior to the violation for which the defendant is to be sentenced;

6.2. A sum of $150.00, if the defendant has committed two violations of this Chapter within 12 months prior to the violation for which the defendant is to be sentenced; or

6.3. A sum of $225.00, if the defendant has committed three or more violations of this Chapter within 12 months prior to the violation for which the defendant is to be sentenced.

(SECTION 110 STOP WORK ORDER)

12. Section 110.2 Issuance. The stop work order shall be in writing and shall be given to the owner of the property, to the owner's authorized agent, or to the person performing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order and the conditions under which the cited work is authorized to resume. Any person served with a stop work order shall pay an administrative penalty of up to two hundred fifty dollars ($250.00).

(SECTION 111 UNSAFE STRUCTURES AND EQUIPMENT)

13. Section 111.1 Unsafe conditions. When a structure or equipment is found by the code official to be unsafe, or when a structure is found unfit for human occupancy, or is found unlawful, such structure shall be condemned pursuant to the provisions of this code. If the code official finds a structure unsafe, the owner of the property shall provide an *action plan* for repairs to the code official.

14. Section 111.2 Closing of vacant structures. If the structure is vacant and unfit for human habitation and occupancy, and is not in danger of structural collapse, the code official is authorized to post a placard of condemnation on the premises and order the structure closed up so as not to be an attractive nuisance. Structures shall be closed up in accordance with Appendix A of this code. Upon

failure of theowner or owner's authorized agent to close up the premises within the time specified in the order, the code official shall cause the premises to be closed and secured through any available public agency or by contract or arrangement by private persons and the cost thereof shall be charged against the real estate upon which the structure is located and shall be a lien upon such real estate and shall be collected by any other legal resource. Abatement by the code official shall be in accordance with Section 500.510 of the St. Charles County Code.

15. Section 111.4.2 Method of service. Such notice shall be deemed to be properly served where a copy thereof is served in accordance with one of the following methods:

1. A copy is delivered personally.

2. A copy is sent by first-class, certified, or registered mail addressed to the owner at the last known address with the return receipt requested.

3. A copy is delivered in any other manner as prescribed by local law.

If the first-class, certified, or registered letter is returned showing that the letter was not delivered, a copy thereof shall be posted in a conspicuous place in or about the structure affected by such notice. Service of such notice in the foregoing manner upon the owner's agent or upon the person responsible for the structure shall constitute service of notice upon the owner.

16. Section 111.7 Placarding. Upon failure of the owner, owner's authorized agent or person responsible to comply with the notice provisions within the time given, the code official shall post on the premises or on defective equipment a placard bearing the word "Condemned" or "Uninhabitable/Unusable" and a statement of the penalties provided for occupying the premises, operating the equipment or removing the placard. Such notice shall be posted in a conspicuous place in or about the structure affected by such notice. If the notice pertains to equipment, it shall be placed on the condemned equipment.

17. Section 111.9.1 Manufactured homes. Any mobile, manufactured or modular home that has been condemned by any governmental agency (Federal, State, County or Municipal) shall be removed from the City's jurisdiction at owner's expense within thirty (30) days after the placard or notice has been posted, unless the structure has been repaired in accordance with Section 500.600, Ordinances of St. Charles County, Missouri.

(SECTION 112 EMERGENCY MEASURES)

18. Section 112.5 Costs of emergency repairs. Costs incurred in the performance of emergency work shall be paid by the jurisdiction, subject to proceedings for their recovery authorized in Section 500.510, Ordinances of St. Charles County, Missouri.

(SECTION 113 DEMOLITION)

20. Section 113.1 General. The code official shall order the owner or owner's authorized agent of any premises upon which is located any structure, which in the code official's or owner's authorized

agent judgment after review is so deteriorated or dilapidated or has become so out of repair as to be dangerous, unsafe, insanitary or otherwise unfit for human habitation or occupancy, and such that it is unreasonable to repair the structure, to demolish and remove such structure; or if such structure is capable of being made safe by repairs, to repair and make safe and sanitary, or to board up and hold for future repair or to demolish and remove at the owner's option; or where there has been a cessation of normal construction of any structure for a period of more than two years, the code official shall order the owner or owner's authorized agent to demolish and remove such structure, or board up until future repair. Boarding the building up for future repair shall not extend beyond one year, unless approved by the building official. The provisions of Section 500.520, Ordinances of St. Charles County, Missouri, shall apply to notices and orders authorized by this section.

21. Section 113.2 Notices and orders. Notices and orders for this section shall comply with Section500.520, Ordinances of St. Charles County, Missouri.

22. Section 113.3 Failure to comply. If the owner of a premises or owner's authorized agent fails to comply with a demolition order within the time prescribed, the provisions of Section 00.520, Ordinances of St. Charles County, Missouri, shall apply.

(SECTION 114 OCCUPANCY PERMITS & INSPECTIONS)

23. Section 114.1 Occupancy permits. Occupancy permits shall be required for all existing structures upon any change in ownership, tenancy, or occupancy of such structures. A new owner, tenant or occupant shall submit to the code official, on forms supplied by the code official, an application for an occupancy permit along with required inspection fees. The code official shall promptly schedule and conduct inspections for occupancy permits; shall order the applicant to correct any violations of this code noted at the time of inspection; and shall issue an occupancy permit only after reinspecting to determine that the applicant has complied with that order. It shall be a violation of this code to occupy any structure subject to this provision without an occupancy permit.

Exceptions:

1 . An occupancy permit shall not be required or existing residential structures unless the structure was condemned by the code official in accordance with this code. Such condemned structures shall meet all the minimum requirements of all applicable codes and regulations adopted by the City as a prerequisite to issuance of an occupancy permit.

2. The code official may issue a temporary occupancy permit for a period not to exceed ninety (90) days, if the code official determines that the violations of this code that must be corrected do not constitute a health or safety risk to occupants or to surrounding properties.

(SECTION 115 INDEX OF VACANT BUILDINGS)

24. Section 115.1 Enrollment. The owner or owner's authorized agent of a vacant building may enroll the building with the code official. The enrollment shall be on forms provided by the code official and shall include all information the code official may require. The enrollment shall remain valid for one

year from the date the code official approves the enrollment, unless terminated sooner. The owner shall renew the enrollment annually so long as the building remains vacant. If ownership of a vacant building is transferred while the building is enrolled, the former owner shall immediately notify the code official in writing of the transfer, and the new owner shall enroll the building with the code official within 30 days after the transfer.

25. Section 115.2 Enrollment Fee. The enrollment fee shall be set by ordinance.

26. Section 115.3 Property inspection and maintenance. Upon enrollment of a vacant building, the code official shall inspect the vacant building and premises to determine the vacant building's compliance with this code's requirements for the exterior property and exterior structure and all other ordinances. The code official shall make available to the owner an inspection report listing any violations. Within sixty (60) days after the inspection report is issued, the owner shall bring the building and premises into compliance and shall thereafter maintain the building and premises. Any failure or refusal by the owner to authorize the code official to inspect the building and premises shall terminate the enrollment.

27. Section 115.4 Removing a vacant building from the index. Upon the owner's request to remove a vacant building from the index, the code official shall inspect the building and premises to determine whether the vacant building complies with the requirements of this code and all other ordinances. The code official shall make available to the owner an inspection report listing any conditions which are not in compliance with the requirements of this code and all other ordinances. Within sixty (60) days after the inspection report is issued, the owner shall remedy the deficiencies listed in the inspection report. The code official may extend the period to remedy the deficiencies. Any such extension shall not exceed thirty (30) days and for interior building condition violations only, the code official may grant additional extensions, provided the total amount of all extensions does not exceed one hundred twenty (120) days. Any failure or refusal by the owner to permit the code official to inspect the building and premises shall terminate the enrollment.

(CHAPTER 2 DEFINITIONS)

(SECTION 201 GENERAL)

28. Section 201.3 Terms defined in other codes. Where terms are not defined in this code and are defined in the *International Building Code*, *International Existing Building Code*, *International Fire Code*, *International Fuel Gas Code*, *International Mechanical Code*, *International Plumbing Code*, *International Residential Code*, *International Zoning Code,* ~~or~~ *NFPA 70*, as adopted herein, such terms shall have the meanings ascribed to them as stated in those codes.

29. Section 201.5 Parts. Whenever the words "*dwelling unit*," "dwelling," "*premises*," "building," "manufactured home," "mobile home," "modular home," "recreational vehicle," "*rooming house*," "*rooming unit*," "*housekeeping unit*" or "story" are stated in this code, they shall be construed as though they were followed by the words "or any part thereof."

30. (SECTION 202 GENERAL DEFINITIONS)

ACTION PLAN. A written plan that identifies the maintenances that are needed, the timeline needed for maintenances, alternative methods of compliance, and the projected finish date of those maintenances.

CONDEMN. To adjudge uninhabitable/unusable.

DWELLING UNIT. A single unit providing complete, independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation. This term is intended to include, but not be limited to, mobile, manufactured, and modular homes.

MOTOR VEHICLE. Any machine designed for self-propulsion, usually to transport people, cargo, or both.

NOXIOUS WEED. Any plant currently listed on the Missouri Department of Agriculture's noxious weed list for its ability to cause economic harm and its high level of difficulty in controlling or eradicating.

RUBBISH. Combustible and noncombustible waste materials, except garbage; the term shall include the residue from the burning of wood, coal, coke and other combustible materials, paper, rags, cartons, boxes, wood, excelsior, rubber, leather, tree branches, *yard* trimmings, tin cans, metals, mineral matter, glass, crockery and dust and other similar materials. This term shall also include indoor furnishings and fixtures such as indoor furniture, appliances, lighting fixtures, mattresses, refrigerators, washers, dryers, and water softeners, when left on exterior premises. Rubbish does not include the storage of furniture, cooking equipment, heaters, firewood, fire pits, and other items designed to be kept outside of a residential building if kept in a manner that does not create a risk to the health or safety of the public or constitute a public nuisance.

STAGNANT WATER. Any water standing for 72 hours or more in the absence of any precipitation.

TRAILER. An unpowered vehicle towed by a motor vehicle.

UNINHABITABLE/UNUSABLE. To adjudge unsafe or unfit for occupancy or use.

UNLICENSED VEHICLE. A vehicle that is not legally authorized to operate on public roads because it lacks valid registration or does not display valid license plates as required by state law or by other applicable law in the case of vehicles registered and licensed outside the State of Missouri.

VACANT BUILDING. Any residential or non-residential building, or any part thereof, which is not occupied and has not been occupied for at least the preceding 90 days by a person who has a legal right to be on the premises. A property shall not be considered vacant which is being currently marketed by a licensed real estate professional hired by the former or current occupant of the property and to which water service has not been shut-off.

(CHAPTER 3 GENERAL REQUIREMENTS)

(SECTION 302 EXTERIOR PROPERTY AREAS)

31. Section 302.4 Weeds. All developed premises or exterior property shall be maintained free from weeds or plant growth in excess of ten (10) inches. For purposes of this provision, premises or exterior property are "developed" if improved with any structure or if used for outdoor storage of materials or if within a platted subdivision. For purposes of this provision, premises or exterior property includes any public or private right-of-way, so that it shall be the duty of all property owners to maintain premises or exterior property up to the curb or edge of pavement. However, the code official may waive the height requirements set out above for any premises or exterior property or part thereof unless doing so would adversely affect health or safety. All noxious weeds shall be prohibited. Weeds shall be defined as all grasses, annual plants and vegetation, but not trees or shrubs, or agricultural crops, or gardens in the rear yard, or cultivated flowers. Upon failure of the owner or agent having charge of a property to comply with a correction order in a notice of violation of this Section, that owner or agent shall be subject to prosecution in accordance with Section 109.3, above, and the code official may cause the violation to be abated as provided in Section 500.510, Ordinances of St. Charles County, Missouri.

32. Section 302.8 Motor vehicles and trailers Except as otherwise provided in this Subsection, no motor vehicle or trailer may be parked, kept or stored on any premises, if such motor vehicle or trailer is unlicensed, or unregistered, or in a state of disassembly or disrepair, or in the process of being stripped or dismantled. After issuance of a notice of violation of any provision of this Section, such violation may be deemed a continuing violation upon recurrence of that same violation. Further, any motor vehicle or trailer parked in violation of this Section, if it is subject to the licensing and registration requirements of Chapter 301, Revised Statutes of Missouri, may be subject to towing under Chapter 304, Revised Statutes of Missouri, as amended, or under the Vehicle Removal Code of St. Charles County, Section 500.540, OSCCMo.

33. Section 302.10 Outdoor Storage. Outdoor storage on any lot or tract that is used for residential purposes shall be restricted to (a) firewood stacked and stored for personal use on the same lot or tract, (b) composting of residential yard waste in compliance with City ordinances, and (c) other items incidental to residential occupancy such as mulch, building materials, or landscaping materials, that are used for on-premises improvement projects related to such uses. Storage of such other items shall be limited to not more than 90 days, or where there is an active building permit to complete such projects.

> Exception: Outdoor storage on land categorized as agricultural and meeting an exception in City ordinances shall be permitted for farm equipment, farm implements, materials used in agriculture and fencing.

(SECTION 303 SWIMMING POOLS, SPAS AND HOT TUBS)

34. Section 303.1 Swimming pools. Swimming pools shall be maintained in a clean and sanitary condition and in good repair. All swimming pools shall be operated and maintained in accordance with the Swimming Pool and Spa Code. All swimming pools shall be maintained to prevent the accumulation of stagnant water. If a swimming pool is equipped with a safety cover, that cover must be maintained, and property placed to prevent the accumulation of stagnant water thereon.

35. Section 303.2 Enclosures. Private swimming pools, hot tubs and spas, containing water more than 24 inches (610 mm) in depth shall be completely surrounded by a fence or barrier not less than 48 inches (1219 mm) in height above the finished ground level measured on the side of the barrier away

from the pool. Gates and doors in such barriers shall be self-closing and self-latching. Where the self-latching device is less than 54 inches (1372 mm) above the bottom of the gate, the release mechanism shall be located on the pool side of the gate. Self-closing and self-latching gates shall be maintained such that the gate will positively close and latch when released from an open position of 6 inches (152 mm) from the gatepost. An existing pool enclosure shall not be removed, replaced or changed in a manner that reduces its effectiveness as a safety barrier.

Exceptions:

1. Spas or hot tubs with a safety cover that complies with ASTM F1346 shall be exempt from the provisions of this section, except for Spas and hot tubs installed at or below the finished ground level.

(SECTION 304 EXTERIOR STRUCTURE)

36. Section 304.2 Protective treatment. Exterior surfaces, including but not limited to, doors, door and window frames, cornices, porches, trim, balconies, decks and fences, shall be maintained in good condition and free from organic growth. Exterior wood surfaces, other than decay-resistant woods, shall be protected from the elements and decay by painting or other protective covering or treatment. Peeling, flaking, fading, and chipped paint shall be eliminated, and surfaces repainted. Siding and masonry joints, as well as those between the building envelope and the perimeter of windows, doors and skylights, shall be maintained weather resistant and water tight. Metal surfaces subject to rust or corrosion shall be coated to inhibit such rust and corrosion, and surfaces with rust or corrosion shall be stabilized and coated to inhibit future rust and corrosion. Oxidation stains shall be removed from exterior surfaces. Surfaces designed for stabilization by oxidation are exempt from this requirement.

37. Section 304.14 Insect screens. During the period from January 1 to December 31, every door, window and other outside opening required for ventilation of habitable rooms, food preparation areas, food service areas or any areas where products to be included or utilized in food for human consumption are processed, manufactured, packaged or stored shall be supplied with approved tightly fitting screens of minimum 16 mesh per inch (16 mesh per 25 mm), and every screen door used for insect control shall have a self-closing device in good working condition.

Exception: Screens shall not be required where other approved means, such as air curtains or insect repellent fans, are employed.

38. Section 304.20 Skirting. Every manufactured and mobile home shall have skirting around the entire structure. Skirting shall be made of weather-resistant material and be maintained in good condition.

(SECTION 308 RUBBISH AND GARBAGE)

39. Section 308.1 Accumulation of rubbish or garbage. Exterior property and premises and the interior of every structure shall be free from any accumulation of rubbish or garbage. No rubbish or garbage may be collected, stored, or sorted on or within any vehicle or container other than a container designed or constructed for such use.

40. Section 308.1.1 Abatement by the code official. Upon failure of the owner or agent having charge of a property to comply with a correction order in a notice of violation of this Section, that owner or agent shall be subject to prosecution in accordance with Section 109.3, above, and the code official may cause the violation to be abated as provided in Section 500.510, Ordinances of St. Charles County, Missouri.

41. Section 308.1.2 Salvage. If the code official causes the removal of accumulated rubbish or garbage pursuant to Section 308.1.1, the County is authorized to sell salvage and valuable materials and apply sales proceeds as provided by Section 113.4 of this code.

(SECTION 310 ACCESSIBILITY)

42. Section 310.1 General. A facility that is required to be accessible shall be maintained accessible during occupancy.

43. Section 310.2 Maintenance. The accessible features of a facility shall be maintained in good repair, in a clean, structurally sound and sanitary condition, and free from impediments to accessibility.

(SECTION 311 STORM SHELTERS)

44. Section 311.1 General. Community storm shelters shall be evaluated, maintained and repaired in accordance with this section and ICC 500.

45. Section 311.2 Evaluation. Community storm shelters shall be evaluated annually and when requested by the authority having jurisdiction in accordance with ICC 500.

46. Section 311.3 Maintenance and repairs. Community storm shelters shall be maintained in an operable condition. All structural and operational elements shall be repaired or replaced in accordance with ICC 500 where damaged or found to be inoperable.

(CHAPTER 6 MECHANICAL AND ELECTRICAL REQUIREMENTS)

(SECTION 602 HEATING FACILITIES)

47. Section 602.3 Heat Supply. Every owner and operator of any building who rents, leases or lets one or more dwelling units or sleeping units on terms, either expressed or implied, to furnish heat to the occupants thereof shall supply heat during the period from January 1 to December 31 to maintain a minimum temperature of 68°F (20°C) in all habitable rooms, bathrooms and toilet rooms.

Exceptions:

1. When the outdoor temperature is below the winter outdoor design temperature for the locality, maintenance of the minimum room temperature shall not be required provided that the heating system is operating at its full design capacity. The winter outdoor design temperature for the locality shall be as indicated in Appendix D of the ~~International~~ Plumbing Code.

2. In areas where the average monthly temperature is above 30°F (-1°C), a minimum temperature of 65°F (18°C) shall be maintained.

48. Section 602.4 Occupiable work spaces. Indoor occupiable work spaces shall be supplied with heat during the period from January 1 to December 31 to maintain a minimum temperature of 65°F (18°C) during the period the spaces are occupied.

Exceptions:

1. Processing, storage and operation areas that require cooling or special temperature conditions.

2. Areas in which persons are primarily engaged in vigorous physical activities.

49. Section 604.2 Service. The size and usage of appliances and equipment shall serve as a basis for determining the need for additional facilities in accordance with NFPA 70. *Dwelling units* shall be served by a minimum three-wire, 120/240 volt, single-phase electrical service having a minimum rating of 60 amperes.

(CHAPTER 7 FIRE SAFETY REQUIREMENTS)

(SECTION 704 FIRE PROTECTION SYSTEMS)

50. Section 704.6 Single- and multiple-station smoke alarms. Single- and multiple-station smoke alarms shall be installed in existing Group I-1, R occupancies, and one- and two- family dwellings in accordance with Sections 704.6.1 through 704.6.3.

51. Section 704.6.1 Where required. Existing Group I-1 and R occupancies shall be provided with single-station smoke alarms in accordance with Sections 704.6.1.1 through 704.6.1.4. One- and two-family dwellings shall be provided with smoke alarms in accordance with Section 704.6.1.5. Interconnection and power sources shall be in accordance with Sections 704.6.2 and 704.6.3.

52. Section 704.6.1.5. One- and two- family dwellings. Smoke alarms shall be installed in all of the following locations:

1. In each sleeping room.

2. Outside each separate sleeping area in the immediate vicinity of the bedrooms.

3. On each additional story of the dwelling, including basements and habitable attics and not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

4. Not less than 3 feet (914 mm) horizontally from the door or opening of a bathroom that

contains a bathtub or shower unless this would prevent placement of a smoke alarm required by this section.

5. In the hallway and in the room open to the hallway in dwelling units where the ceiling height of a room open to a hallway serving bedrooms exceeds that of the hallway by 24 inches (610 mm) or more.

(SECTION 705 CARBON MONOXIDE ALARMS AND DETECTION)

53. Section 705.1 General. Carbon monoxide alarms shall be installed in dwellings in accordance with Section 1103.9 of the International-Fire Code except that alarms in dwellings covered by the International Residential Code shall be installed in accordance with Section R315 of that code for new dwellings. However, in one- and two-family dwellings interconnection is not required, and the power source is permitted to be solely battery operated in buildings that are not undergoing alterations, repairs, or construction of any kind.

54. New Section 1000.510 Abatement of Violations, is adopted and the intent of this Section 1000.510 is to duplicate the provisions of St. Charles County Code Section 500.510 in accordance with the City' agreement with St. Charles County for enforcement of the City's Codes.

Section 1000.510 Abatement of Violations,Where the code official official is authorized by the Property Maintenance Code to abate a violation of that code, the code official may do so as provided herein.

A. Non-emergency abatement responsibilities of code official. In the absence of an emergency, the code official shall employ the following procedure:

1. Notice of order to abate and of hearing: The code official shall serve a notice of the violation to be abated on the owners of the property and on any other person responsible for it. That notice shall order a hearing by the code official in at least four (4) calendar days and shall order the abatement of the violation by the time of the hearing.

2. Failure to abate, hearing, declaration of nuisance and further order to abate: If the violation is not abated by the time of the hearing, the code official may find and declare the violation a nuisance at that hearing and order the violation abated within two (2) working days.

3. Failure to abate and abatement by code official: If the violation is not abated within two (2) working days, the code official shall have that violation abated at public expense and certify the costs thereof and of all necessary inspections and administrative proceedings and record keeping to the St. Charles County Director of Finance.

B. Emergency abatement responsibilities of code official. In an emergency, where the code official abates a violation as authorized in such cases by the Property Maintenance Code, the code official shall employ the following procedure:

1. Notice of emergency abatement and of hearing: The shall serve a notice of the

violation abated by the code official pursuant to the Property Maintenance Code, including a declaration that the violation is an emergency, the grounds for that declaration, and a statement of the costs of abating that violation, upon the owners of the property and on any other person responsible for it. That notice may be served personally, or by first class mail, postage prepaid, or by posting on the property. That notice shall order a hearing by the code official in at least four (4) calendar days.

2. Hearing and final order: At the hearing of the code official may confirm, modify, or withdraw any element of the foregoing notice, shall enter a final order reflecting those determinations, and shall certify any confirmed costs of abatement and, if there are any such costs, the costs, the costs of any and of all necessary inspections and administrative proceedings and record keeping of the City Clerk.

The code official shall be present during the abatement pursuant to this Section. Any and all items removed from the property during an abatement shall be photographically recorded by the code official.

3. Imposition of lien after abatement by code official; responsibilities of City Clerk. The City Clerk shall prepare and issue to the owners of the property in violation a special tax bill against the property for those costs, payable within thirty (30) days of issuance. Each such special tax bill shall include a notice of lien stating that if the bill is not paid when due. It shall become, from the date of its issuance, a first (1st) lien on the property until paid, to be collected by the St. Charles County Collector of Revenue in the same way as property taxes are collected. Each such special tax bill shall be prima facie evidence of their recitals therein and of its validity, and no mere clerical error or informality in the tax bill or the proceedings leading up to its issuance shall be a defense thereto. The City Clerk shall deliver each such special tax bill that remains unpaid after payment is due to the St. Charles County Collector of Revenue on or before the first (1st) day of June of each year, to be collected with property taxes as provided above.

4. Appeal. An aggrieved party may appeal from an order of the code official as provided by Chapter 536, Revised Statutes of Missouri.

55. New Section 1000.520 is adopted and the intent of this Section 1000.520 is to duplicate the provisions of St. Charles County Code Section 500.520 in accordance with the City' agreement with St. Charles County for enforcement of the City's Codes.

Section 1000.520 Notices of Unsafe Structure, Declarations of Nuisance, Orders To Repair or Demolish, Abatement, Notice, Hearing and Appeal.

A. Notice of Unsafe Structure. If an unsafe condition as defined by the Property Maintenance Code of St. Charles County is found in a building or structure, the code official shall prepare and issue a Notice of Unsafe Structure. For purposes of this Section, an unsafe condition may also include:

1. Failure to repair or demolish any structure that is damaged by fire or by flood within three (3)

months of such damage; or Failure to repair or demolish any structure having issued a notice of violation and deemed uninhabitable pursuant to the Property Maintenance Code within three (3) months of the date of such notice.

2. Identification of Defects. The notice shall list defects in the structure or building that constitute unsafe conditions and declare that structure or building a public nuisance.

3. The notice shall also order the structure or building vacated by the fifteenth (15^{th}) day following service of the notice. However, if the code official determines that an imminent dangerous condition exists, the notice shall also order that the structure or building be vacated forthwith pursuant to Section 109.1 of the Property Maintenance Code and that the building or structure be boarded up within twelve (12) hours of service of the notice.

4. In addition, the notice shall order that substantial work on repairs must begin or (if repairs would be unreasonable) that demolition must be completed by no later than the thirtieth (30^{th}) day following service of the notice.

5. Form of Notice. The notice shall be in substantially in the following form:

ST. CHARLES COUNTY DIVISION OF BUILDING AND CODE ENFORCEMENT:

NOTICE OF UNSAFE STRUCTURE, DECLARATION OF PUBLIC NUISANCE AND ORDER

Unsafe Structure:

(insert address or other adequate description of building or structure) Serve: (insert names of owner, occupant, lessee, mortgage, agent and all other persons having an interest in the structure or building according to the land records of the St. Charles County Recorder of Deeds) Notice of Unsafe Structure, Declaration of Public Nuisance, and Order:

(complete paragraphs 1, 2 and either 3A or 3B)

1. THE STRUCTURE OR BUILDING IDENTIFIED ABOVE IS UNSAFE AND IS HEREBY DECLARED A PUBLIC NUISANCE BECAUSE OF THE FOLLOWING DEFECTS:

2. NO PERSON MAY OCCUPY THIS STRUCTURE OR BUILDING, OR ANY PART THEREOF, AFTER THE FIFTEENTH (15^{TH}) DAY FOLLOWING SERVICE OF THIS NOTICE. After such date, no person shall occupy, enter, refuse to leave, or remain in this structure or building or any part thereof, except persons directly employed in securing, repairing or removing such building.

3A. THIS STRUCTURE OR BUILDING MUST BE REPAIRED TO CURE THE DEFECTS LISTED IN PARAGRAPH 1 ABOVE. WORK MUST BEGIN BY THE THIRTIETH (30^{TH}) DAY FOLLOWING SERVICE OF THIS NOTICE AND PROCEED CONTINUOUSLY WITHOUT UNCESSARY DELAY TO COMPLETION. This order may be obeyed by demolition and removal of this structure. Upon failure to repair as herein required, the code

official may, after hearing, order repairs to be made and the cost thereof charged to the owner of this property as a special tax lien.

3B. THIS STRUCTURE MUST BE DEMOLISHED AND REMOVED FROM THE PREMISES BY THE THIRTIETH (30^{TH}) DAY FOLLOWING SERVICE OF THIS NOTICE. If the structure is not demolished and removed by that date, the code official may, after hearing, order the same done and the cost assessed against the property as a special tax lien. This demolition order is mandatory. However, it may be converted into a repair order, provided that plans and bids satisfying the requirements of Subsection 1000.520(G) and, if applicable, Subsection 1000.520(H) below be presented to the code official within thirty (30) days of the service of this notice.

6. Posting of Notice. A copy of the Notice of Unsafe Structure and Declaration of Public Nuisance shall be posted in a prominent place on the premises.

7. Method of Service of Notice. The Notice of Unsafe Structure shall be recorded at the office of the St. Charles County Recorder of Deeds and shall be served on all affected parties, namely owners, occupants, lessees, mortgagees, agents and all other persons having an interest in the unsafe building or structure as shown by the land records of the St. Charles County Recorder of Deeds. This notice may be served personally or by first class mail, postage prepaid, or if service cannot be had by either of these modes of service, then by at least one (1) publication in a newspaper of general circulation in St. Charles County.

8. Restoration. An unsafe structure may be restored to safe condition solely as authorized by the Building or Residential Code.

9. Unreasonable Repairs General Provision. As provided in the Building or Residential Code and subject to Subsection 1000.520(H), below, the code official shall presume that a structure or building may not be repaired if the code official determines that the cost of repairs would exceed seventy-five percent (75%) of the current assessed value of the unsafe structure or building as determined by the St. Charles County Assessor's most recent assessment. To rebut this determination, a property owner, within thirty (30) days of the service of a Notice of Unsafe Structure, must present to the code official who issued the Notice three (3) signed bids from outside contractors.

10. Unreasonable Repairs Special Provision for Unsafe Buildings or Structures in Floodway, Floodway Fringe or Density Floodway Zoning Districts as Defined by City Zoning Regulations. With respect to unsafe structures or building in Floodway, Floodway Fringe or Density Floodway zoning districts as defined in the City's Code, the code official shall apply the non-conforming use provision(s) specifically applicable in such zoning districts.

11. Failure to Comply with Repair or Demolition Order in Notice of Unsafe Structure Notice of Hearing Service. If the affected parties fail to commence work on repairs or complete demolition within the time stated in the notice of unsafe structure, or if the affected parties fail to proceed continuously with the work without unnecessary delay, the code official shall call a hearing upon the matter, giving the affected parties twenty-one (21) days written notice of the hearing, said

notice of hearing may be served personally or first-class mail, postage prepaid, or if service cannot be had by either of these modes of service, then by at least one (1) publication in a newspaper of general circulation.

12. Conduct of Hearing. The code official shall conduct a full and adequate hearing. Any affected party may be represented by counsel and all affected parties shall have an opportunity to be heard. Upon hearing the parties, the code official may find and conclude that the structure to be demolished is not unsafe and need not be demolished or repaired, or that the structure is unsafe and must be demolished or repaired, in which case the code official may order demolition or repair as provided in Subsection 13 below or may institute legal action in a court of competent jurisdiction to compel demolition or repair.

13. Cost of Repair of Demolition to be Recovered by Tax Lien. If the code official issues an order whereby the building or structure is demolished, secured or repaired at the cost of the City, the cost of performance shall be certified to City Clerk who shall cause a special tax bill or assessment therefore against the property to be prepared and collected by the County Collector. At the request of the taxpayer, the tax bill may be paid in installments over a period of not more than ten (10) years. The tax bill from the date of its issuance shall be deemed a personal debt against the property owner and shall also be a lien on the property until paid.

14. Salvage Materials. If the code official orders a building or structure demolished at the City's expense, the City is authorized to sell salvage and valuable materials and apply sales proceeds as provided by the Property Maintenance Code.

15. Appeal. Affected parties may appeal from the determination of the code official as provided by Chapter 536, Revised Statues of Missouri.

56. New Section 1000.530 is adopted and the intent of this Section 1000.530 is to duplicate the provisions of St. Charles County Code Section 500.530 in accordance with the City' agreement with St. Charles County for enforcement of the City's Codes.

Section 1000.530 Levels of Contamination Due to Production or Use of Methamphetamine and protocols for Abating Such Contamination.

A. Title. This Section is entitled and may be known as "Levels of Contamination Due to Production of Methamphetamine and Protocols for Abating Such Contamination."

B. Purpose. The purpose of this Section are:

1. To adopt standards for identifying dangerous levels of toxic chemicals and residue associated with the production of methamphetamine; and

2. To establish protocols whereby the City may cooperate with and rely on the Drug Task Force when applying the Property Maintenance to order or cause the abatement of contamination in structures due to the production of methamphetamine.

C. Definitions. For purposes of this Section, the words or terms listed below are defined as follows:

DEPARTMENT. The St. Charles County Department of Community Development including the code official.

DRUG TASK FORCE. The St. Charles County Regional Task Force, a multi-jurisdictional enforcement group or MEG established by intergovernmental agreements between St. Charles County and municipalities of O'Fallon, St. Peters, Wentzville, Lake Saint Louis and St. Charles pursuant to the Intergovernmental Drug Laws Enforcement Act, Sections 195.501 to 195.511, RSMo., as amended.

METHAMPHETAMINE. Dextro methamphetamine, levo methamphetamine, and unidentified isomers of the same, any racemic mixture of dextro/levo methamphetamine, or any mixture of unidentified isomers of methamphetamine. The term includes derivatives conjugates, oxides and reduced forms of the basic structure associated with the formation of methamphetamine. For the purposes of this protocol, this term includes amphetamine, ephedrine and pseudoephedrine.

QUALIFIED COMPANY OR QUALIFIED CONTRACTOR. A company or contractor that tests structures for the presence of unsafe contamination and/or abates such unsafe contamination and that:

1. Complies with the guidelines of the U.S. Environmental Protection Agency Voluntary Guidelines for Methamphetamine and Fentanyl Laboratory Cleanup (August [~~2009~~]2021);

2. Complies with the regulations of the Occupational Safety and Health Administration of the United States Department of Labor relating to hazardous waste operations and emergency response, including 29 Code of Federal Regulations Section 1910.120;

3. Requires that at least one (1) employee or supervisor assigned to and on duty at any work site shall have completed the forty (40) hour Hazardous Waste Operations and Emergency Response (HASWOPER) training [Occupational Safety and Health Administration (OSHA) 29 CFR 1910];

4. Requires its personnel to complete a clandestine drug lab assessment and decontamination course offered by a sponsor acceptable to the Drug Task Force and/or Department;

5. Neither employs nor is managed or owned by any person who has either been convicted of any crime involving the production, possession, use, or distribution of methamphetamine, or is currently being prosecuted for any crime involving the production, possession, use, or distribution of methamphetamine; and

6. Is not engaged to test or decontaminate a structure in which it or any of its owners, managers or personnel has an interest.

UNSAFE CONTAMINATION. The presence of chemicals in a structure at levels exceeding the levels for such chemicals as provided in Subsection (D), below.

D. A structure will be considered unsafe for purposes of the Property Maintenance Code if it is found to

contain any of the chemicals listed below at exposure limits above the levels listed below established by the National Institute for Occupational Safety and Health.

1. Red Phosphorous – any amount

2. Iodine Crystals C0.1 ppm (1 mg/m3)

3. Sulfuric Acid TWA 1 mg/m3

4. Hydrogen Chloride C 5 ppm (7 mg/m3)

5. Hydrochloric Acid (Hcl gas) – C 5 ppm (7 mg/ m3)

6. Methamphetamine – in concentration equal to or greater than 1.5 µgram/100 cm2

7. Lead and Mercury – If it is determined that the phenyl-2-propanone (P2P) method of methamphetamine manufacturing was used, surface levels for lead in excess of 20 µg/ft2 and vapor samples for Mercury in excess of 50 ng/m3.

E. Closure and Abatement Orders Upon Report and Investigation by Drug Task Force.

1. When the Drug Task Force reports to the Department that a structure in the City, has been used for the use or production of methamphetamine or as a storage facility for chemicals used in the manufacturing of methamphetamine, the code official may order that structure closed pursuant to the Property Maintenance Code. The code official shall rescind such an order if either the Drug Task Force or a qualified company or contractor engaged by the structure's owner to perform sampling and testing under Subsection (F)(3) below later reports that after testing and investigation it has not found unsafe contamination in that structure.

2. When the Drug Task Force reports to the Department that a structure in the City contains unsafe contamination as identified in the preceding Subsection, the Department shall order that structure closed pursuant to Property Maintenance Code.

F. Supplementary Notice and Instructions.

1. While closure and abatement orders pursuant to the Property Maintenance Code may be posted, the code official shall also attempt to contact the owner of record of the affected property, or the owner's agent, as provided by the Property Maintenance Code.

2. Such notice shall direct the owner to contact the Department's Division of Building and Code Enforcement, within twenty (20) calendar days to identify a qualified contractor or company engaged to decontaminate the structure and establish a schedule for decontaminating the structure, and further advise the owner that failure to contact the Department within that time specified may result in the Department's request to disconnect electric service in order to ensure that the structure is not occupied until it is decontaminated.

3. Such notice shall also inform the owner that if the owner contacts the Department within the time specified in the notice, the owner may request to have the structure retested, but such retesting must be performed as follows:

a. The owner must employ the services of a qualified company or contractor to perform sampling and to analyze the samples.

b. The code official must be present when the qualified company or contractor takes samples and the owner shall pay an inspection fee of forty dollars ($40.00), payment of which must be made prior to the appointment for taking samples.

c. Sampling and testing shall be performed in accordance with the appropriate Sections of the U.S. Environmental Agency Voluntary Guidelines for Methamphetamine and Fentanyl Laboratory Cleanup (August 2121).

d. The qualified company or contractor engaged by the owners must report the results of its analysis of the samples taken to the Department.

e. Such retesting shall not be allowed after any party has attempted to decontaminate the structure by any means without complying with the Subsection (F)(2) above.

G. Decontamination.

1. If testing confirms the presence of unsafe contamination in a structure, the owner shall hire a qualified contractor or company to decontaminate the structure and will advise the Department of the schedule for decontamination.

2. The schedule for work and evidence that the qualified contractor or company meets the requirements of this Section must be submitted for approval to the Department within twenty (20) calendar days of the receipt of the notice. Approval will be based solely on the timeliness of the schedule and the qualifications of the contractor. Approval or rejection of the schedule will be provided within a reasonable time of submission. If rejected, the owner will be informed, in writing, of specific reasons for the rejection and will be required to amend the schedule or the proposed qualified contractor or company. Decontamination shall be preformed in accordance with the appropriate Sections of the U.S. Environmental Protection Agency Voluntary Guidelines for Methamphetamine and Fentanyl Laboratory Cleanup (August 2021).

3. If the owner of property determined to have unsafe contamination fails to voluntarily abate that contamination, the Department may serve a Notice of Violation and proceed in accordance with Section 1000.520, herein. The Department may request disconnection of the electrical service until the decontamination is complete.

4. Post decontamination sampling. Following the completion of the work the owner shall notify the Department that work is complete, and the owner must provide written test results as evidence that the property is compliant with this regulation. The post remediation sampling and testing must be performed by a qualified contractor or company other than an[~~d~~] independent of

the contractor or company that performed the decontamination, and that sampling and testing must be done in accordance with the appropriate Sections of the U.S. Environmental Protection Agency Voluntary Guidelines for Methamphetamine and Fentanyl Laboratory Cleanup (August 2021).

57. New Section 1000.540 is adopted and the intent of this Section 1000.540 is to duplicate the provisions of St. Charles County Code Section 500.540 in accordance with the City' agreement with St. Charles County for enforcement of the City's Codes.

Section 1000.540 Levels of Contamination Due to Production or Use of Methamphetamine and protocols for Abating Such Contamination.

A. Title. This section shall be known and may be cited as the "Vehicle Removal Code"

B. Scope and Effect. This Vehicle Removal Code applies to vehicles on private property that violate the Property Maintenance Code. This Vehicle Removal Code does not alter or affect rights and duties that relate to the towing of abandoned vehicles which Chapter 304, Revised Statutes of Missouri, as amended, vests in the City, in any other agency of law enforcement, or, finally, in any owners of private property on which vehicles belonging to others may be abandoned.

C. Authority to Declare Nuisance and Order Removal. The code official may declare a motor vehicle or trailer, if parked on private property in violation of Section 302.8 of the Property Maintenance Code to be a nuisance and order the removal of that motor vehicle or trailer.

D. Responsibility for Removal. Upon proper notice of such declaration and order, and if an opportunity to be heard is given, the owner of the motor vehicle or trailer and the owner and occupant (if other than the owner) of the real property whereon the motor vehicle or trailer is situated shall be jointly and individually liable for the removal of that motor vehicle or trailer. In the event of removal or disposition or both by the County, the owner of the motor vehicle or trailer and the owner or occupant of the private property where the same is located shall be jointly and individually liable for the expenses occurred.

E. Notice Of Procedure.

1. The code official shall give notice of the declaration and order authorized by Subsection (C), above, to the owner of the motor vehicle or trailer, if ascertainable, and to the owner or occupant of the private property where it is located. Such notice shall be given at least seven (7) days before the time set for compliance and shall also schedule a hearing on the same day as the date of the compliance in the event any party seeks to be heard rather than comply with the order. Any request for an alternate date, which may be no later than three (3) days thereafter as provided by the notice, must be:

a. Filed with the code official no later than three (3) days prior to the time set for compliance; and

b. Filed on a form developed for that purpose by the code official and served with the above-mentioned notice; and Served on all parties to whom the above-mentioned notice was addressed.

2. It shall constitute sufficient notice for a copy of the declaration and order a) to be left at the residence of the occupant, if any, of the private property on which the motor vehicle or trailer is located, b) to be placed on the motor vehicle or trailer, and c) to be sent by first class mail, postage prepaid, to the owner of the motor vehicle or trailer, if ascertainable, and d) to be sent by first class mail, postage prepaid, to the owner of the private property at the owner's last known address according to the records of St. Charles County.

3. The declaration and order shall provide the following information:

a. Cite the violation of the Property Maintenance Code;

b. Declare that violation to be a nuisance;

c. Order the removal of the motor vehicle or trailer within the seven (7) day period;

d. State that there is a right to a hearing, set a date for such hearing no sooner than the end of the seven (7) day period mentioned above, and provide notice that any time prior to the scheduled hearing date, any party may file with the code official and serve on all other parties a written request for an alternate hearing date, which code official shall schedule forthwith, with notice to all parties; and

e. Advise that upon failure to comply with the order to remove, the County shall undertake such removal with the cost of removal to be levied against the owner or occupant of the real property upon which the vehicle is situated, or the owner of the vehicle.

F. or Trailer from Private Property.

1. The code official, including the St. Charles County Chief of Police or his/her designee pursuant to agreement with the City, shall have the right to enter upon private property to take possession of the motor vehicle or trailer and remove it from the premises if the violation has not been remedied within the seven (7) day compliance period, subject to the following provisions:

a. The timely request for an alternate hearing date shall stay the compliance period until such time as the code official has entered a decision and for such additional period of time as shall be allotted by the code official if abatement is ordered.

b. The code official or the St. Charles County Chief of Police or his/her designee pursuant to agreement with the City shall not enter upon private property

dedicated to residential use without the consent of its residential occupant(s) or a duly issued warrant from a court of competent jurisdiction.

2. It shall be unlawful for any person to interfere with, hinder or refuse to allow the code official or the St. Charles County Chief of Police or his/her designee pursuant to agreement with the City to enter upon private property for the purpose of removing a motor vehicle or trailer in accordance with this Vehicle Removal Code.

3. Within seventy-two (72) hours of the removal of a motor vehicle or trailer from private property, the code official or the St. Charles County Chief of Police or his/her designee pursuant to agreement with the City, shall give notice to the Director of Revenue of the State of Missouri, the registered owner of the motor vehicle or trailer, if ascertainable, and to the owner and occupant, if any, of the private property from which the motor vehicle or trailer was removed, and that said motor vehicle or trailer has been impounded and stored for violation of the Property Maintenance Code. The notice shall describe the motor vehicle or trailer, give the location where it is stored, state that its owner or the owner or occupant (if any) of the property from which it was removed will be charged with the cost of removal and storage.

G. Procedure for Hearing.

1. A public hearing shall be conducted before the code official. Formal rules of evidence shall not apply; however, the parties shall have the right to present evidence, confront and cross-examine witnesses, and receive a written decision based upon the facts adduced at the hearing.

2. The public hearing held by the code official is to determine whether there are reasonable grounds to believe that the motor vehicle or trailer ordered to be towed violated the Property Maintenance Code.

3. If after the code official is satisfied that there are reasonable grounds to believe that such a violation exists, the code official shall order the vehicles removal. The code official may impose such conditions and take such other action as deemed appropriate under the circumstances to carry out the purpose of this code and may delay the time for the removal of the motor vehicle or trailer if, in the code official's opinion, the circumstances justify it. In the alternative, the code official shall enter an order allowing such vehicle to remain if he or she finds no violation or nuisance. The costs of removal, storage and advertising expenses, if any, shall be charged against the City or the owner of the vehicle or private property as deemed appropriate by the code official.

H. Method of Removal and Disposition of Motor Vehicles, Trailers and Property.

1. If a motor vehicle or trailer declared to be a nuisance or ordered removed is not timely removed or if that declaration and order is not rescinded after hearing pursuant to this Vehicle Removal Code, the code official shall notify the St. Charles County Chief of Police to remove or cause to be removed any motor vehicle or trailer. Upon receiving that

notification, the St. Charles County Chief of Police or his/her designee may remove or cause to be removed any motor vehicle or trailer in accordance with the provisions of this Vehicle Removal Code by requesting such services of a service station, towing operator, salvage dealer or motor vehicle repair shop under contract with St. Charles County for towing services. Such vehicles or trailers shall be placed in a garage, towing service facility, auto repair shop or other place designated or maintained by the St. Charles County Chief of Police.

2. Neither the code official nor the St. Charles County Chief of Police, nor any of their designees, nor, finally, anyone having custody of a motor vehicle or trailer towed pursuant to this Vehicle Removal Code shall be liable for any damage to such motor vehicle or trailer occasioned by its removal other than damages occasioned by gross negligence or by willful or wanton acts or commissions, except as provided by Section 304.154, Revised Statutes of Missouri, as amended.

3. The owner of a motor vehicle or trailer removed pursuant to this Section shall be responsible for payment of all reasonable charges for towing and storage of such motor vehicle or trailer, except that if it has been reported as stolen or taken without the consent of the owner, the owner shall be responsible only for its storage for any consent of the owner, the owner shall be responsible only for its storage for any period after five (5) business days after receiving the notice of removal provided by the Missouri Director of Revenue pursuant to Section 304.155 Revised Statutes of Missouri, as amended.

4. Upon towing of any vehicle under this Section, the Police Department shall make an inquiry with the National Crime Information Center and any statewide Missouri law enforcement computer system to determine if the vehicle has been reported as stolen. The Police Department shall submit a report to the Missouri Director of Revenue within five (5) working days of the towing of the vehicle. Such report shall include the following:

a. The year, model, make and vehicle identification number of the motor vehicle or trailer;

b. A description of any damage to the motor vehicle or trailer noted by the Law Enforcement Officer;

c. The license number;

d. The storage location of the towed motor vehicle or trailer;

e. The name and address of the tower;

f. The date of the authorization to tow the vehicle; and

g. The date of the inquiry of the National Crime Information Center and any statewide Missouri Law enforcement computer system to determine if the motor vehicle or trailer had been stolen.

5. The owner of such vehicle or the holder of a valid security interest thereon which is in default may reclaim it from the service station, towing operator, salvage dealer or motor vehicle repair shop upon proof of ownership or valid security interest which is in default and upon payment of all reasonable charges for the towing and storage of the motor vehicle or trailer.

6. Any person who removes a motor vehicle or trailer at the direction of the St. Charles County Chief of Police as provided in this Section shall have a lien for all reasonable charges for the towing and storage of the vehicle, until possession of the motor vehicle or trailer is voluntarily relinquishes to the owner of the motor vehicle or trailer or to the holder of a valid security interest thereon which is in default. Such lien shall be enforced in the following matter:

a. The lienholder in possession shall request the St. Charles County Chief of Police to make inquiry with the National Crime Information Center and any statewide Missouri law enforcement computer system to determine if the vehicle had been reported stolen and in whose name the vehicle is registered;

b. The lienholder in possession shall notify by registered mail, postage prepaid, the owner, if known, an any lienholders of record at their last known addresses that application for a certificate of title will be made unless the owner of lienholder of record makes satisfactory arrangements with the person holding the vehicle for payment of towing and storage within thirty (30) days of the mailing of the notice. This notice shall be supplied by the use of a form designed and provided by the Missouri Director of Revenue;

c. Thirty (30) days after the notification form has been mailed and the vehicle is unredeemed and no satisfactory arrangement has been made with the lienholder in possession for continued storage, the lienholder in possession may apply to the Missouri Director of Revenue for a certificate of title if the towed vehicle is titled in Missouri. The application shall be accompanied by:

(1) The original or a conformed or photostatic copy of the Department's written report authorizing the tow;

(2) An affidavit of the lienholder in possession that he has been in possession of the towed vehicle for thirty (30) days and that the owner has failed to make arrangements for payment of towing and storage charges;

(3) A copy of the receipt indicating that the owner or lienholder of record has received the notice required by Subdivision (b) of this Subsection;

(4) An inspection certificate shall be completed by the Department on a form provided by the Missouri Department of Revenue. If the officer who authorized the tow is not available to inspect the vehicle and complete the

certificate, the Department may designate another officer to inspect the vehicle and complete the form. The inspection shall be made at least thirty (30) days after the date of towing. The inspection certificate shall be dated to reflect the date of inspection; and

(5) Any fee as provided by State Statute.

7. If a certificate of ownership has not been previously issued in Missouri on the towed vehicle, the lienholder in possession of the vehicle shall obtain ownership verification from the State in which the vehicle was last registered or titled, if known. If the lienholder is unable to determine the last known State of issuance of certificate of ownership or registration, he shall request ownership verification through any available nationwide network of vehicle records and shall notify the last owner and any lienholder of record, shall comply with Subsection (6) of this Section before a certificate of ownership is issued.

8. Towing operators, service stations, salvage dealers, or motor vehicle repair shops who tow or store vehicles according to this Section shall keep a record for three (3) years on each vehicle towed and not reclaimed by the owner of the vehicle. Such record shall contain a copy of the Department's authorization to tow, copies of all correspondence with the Missouri Department of Revenue concerning the vehicle, and information concerning the final disposition of the possession of the vehicle.

9. Personal property found within a vehicle, except items affixed to the vehicle, shall be considered and treated as lost property.

10. Any other provision of the Property Maintenance Code notwithstanding, when the Department sells an abandoned vehicle in accordance with the terms of the Property Maintenance Code, the Department sells an abandoned vehicle in accordance with the terms if this Property Maintenance Code, the Department may transfer ownership by means of a bill of sale signed by the County Registrar or his/her deputy and sealed with the official County Seal. Such bill of sale shall contain the make and model of the vehicle, the complete vehicle identification number and the odometer reading of the vehicle and shall be lawful proof of ownership for any dealer registered under the provisions of Section 301.218 or 301.251, Revised Statutes of Missouri, as amended, or for a junking certificate as provided in Section 301.227, Revised Statutes of Missouri, as amended.

I. Redemption of Impounded Vehicles. The owner of any vehicle seized under the provisions of this Code may redeem the vehicle at any time during the normal business hours after the vehicle removal, but the prior to the sale or destruction of the vehicle upon proof of ownership and payment to the St. Charles County Chief of Police or his/her designee for the actual and reasonable expense of removal, storage and advertising expenses, if any.

58. New Section 1000.550 is adopted and the intent of this Section 1000.550 is to duplicate the provisions of St. Charles County Code Section 500.550 in accordance with the City' agreement with St. Charles County for enforcement of the City's Codes.

Section 1000.550 Interference with Code Official When Removing Vehicle in Accordance with Section 1000.540.

A. Interference Prohibited. It shall be unlawful for any person to interfere with, hinder or refuse to allow the code official or his/her designee, or the St. Charles County Chief of Police or his/her designee, to enter upon private property for the purpose of removing a motor vehicle or trailer in accordance with a duly authorized order issued under this Section 1000.540 herein.

B. Penalty. Any person violating Subsection (A) above shall be guilty of a misdemeanor and upon conviction shall be subject to a fine of not more than one thousand dollars ($1,000.00) and/or one (1) year's imprisonment for a term not exceeding one (1) year. Each act in violation of Subsection (A) above shall be deemed a separate offense.

SECTION 17. All provisions of the 2021 International Building Code, as adopted and amended by this Ordinance, which require automatic sprinkler systems shall not be enforced by the City unless and until the Wentzville Fire Protection District, or other fire prevention organization with jurisdiction over the corporate boundaries of the City, withdraws its jurisdiction and/or authority to enforce compliance with the 2021 International Building Code.

SECTION 18. All provisions of the 2021 International Fire Code, as adopted and amended by this Ordinance, which require automatic sprinkler systems shall not be enforced by the City unless and until the Wentzville Fire Protection District, or other fire prevention organization with jurisdiction over the corporate boundaries of the City, withdraws its jurisdiction and/or authority to enforce compliance with the 2021 International Fire Code.

SECTION 19. Effective Date: This Ordinance shall be in full force and take effect from and after the date of its final passage and approval.

SECTION 20. Savings: Except as expressly set forth herein, nothing contained in this Ordinance shall in any manner be deemed or construed to alter, modify, supersede, supplant or otherwise nullify any other Ordinance of the City or the requirements thereof whether or not relating to or in any manner connected with the subject matter hereof.

SECTION 21. Severability Clause: If any term, condition, or provision of this Ordinance shall, to any extent, be held to be invalid or unenforceable, the remainder hereof shall be valid in all other respects and continue to be effective and each and every remaining provision hereof shall be valid and shall be enforced to the fullest extent permitted by law, it being the intent of the Board of Aldermen that it would have enacted this Ordinance without the invalid or unenforceable provisions. In the event of a subsequent change in applicable law so that the provision which had been held invalid is no longer invalid, said provision shall thereupon return to full force and effect without further action by the City and shall thereafter be binding.

Read two times, passed, and approved this 10th day of February 2026.

Christopher Jacobsen
Chris Jacobsen As Presiding Officer

Attest:
Tracy L. Williams
Tracy L. Willimas-City Clerk

Approved this 19th day of February, 2026.

Douglas R. Wynn-Mayor

Attest:
Tracy L. Williams
Tracy L. Williams-City Clerk