
Sponsored by: Mayor Hennessy

AN ORDINANCE AMENDING CHAPTER 500 OF THE CITY OF O'FALLON CITY CODE AND ADOPTING THE 2021 EDITION OF THE INTERNATIONAL BUILDING CODE, INTERNATIONAL PROPERTY MAINTENANCE CODE, INTERNATIONAL FIRE CODE, INTERNATIONAL ENERGY CONSERVATION CODE, INTERNATIONAL MECHANICAL CODE, NATIONAL ELECTRIC CODE, INTERNATIONAL PLUMBING CODE, INTERNATIONAL PRIVATE SEWAGE DISPOSAL CODE, INTERNATIONAL RESIDENTIAL CODE, INTERNATIONAL FUEL GAS CODE, INTERNATIONAL EXISTING BUILDING CODE, AND INTERNATIONAL SWIMMING POOL AND SPA CODE, AND CERTAIN AMENDMENTS THERETO, AND PROVIDING FOR THE ISSUANCE OF PERMITS AND COLLECTION OF FEES AND PUNISHMENT FOR VIOLATION THEREOF.

WHEREAS, the City believes it is important to periodically update its health and safety codes to take into account advances in technology, materials, and methods of construction; and

WHEREAS, Section 67.280, RSMo. authorizes the City of O'Fallon to adopt technical codes of the sort hereinafter referenced by adopting an ordinance which incorporates by reference the provisions of such code or portions thereof and any amendment thereto without setting forth the provisions of such code in full provided that one copy of such code to be so adopted shall be filed in the office of the City Clerk and there kept available for public use, inspection, and examination for a period of ninety days prior to the adoption of the ordinance which incorporates such code, portion, or amendment by reference; and

WHEREAS, a copy of the codes referenced and adopted below, has been filed in the office of the City Clerk and will be kept available for public use, inspection, and examination for a period of at least ninety (90) days prior to the effective date of this ordinance and will, following the adoption of this ordinance, be similarly filed and kept available in the office of the City Clerk;

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF O'FALLON, MISSOURI, AS FOLLOWS:

SECTION 1:

Sections 500.010 and 500.020 of Article I of Chapter 500 of Title V of the Code of Ordinances of the City of O'Fallon, Missouri, are hereby repealed and two new Sections initially to be designated as 500.010, and 500.020, are hereby enacted in lieu thereof to read as follows:

**TITLE V. BUILDING AND CONSTRUCTION
CHAPTER 500: BUILDING REGULATIONS
ARTICLE I: BUILDING CODE**

SECTION 500.010: ADOPTION OF BUILDING CODE

That certain document, a copy which is on file in the office of the City Clerk of the City of O'Fallon, Missouri, being marked and designated as the International Building Code, 2021 edition, including Appendix Chapter K, as published by the International Code Council, be and is hereby adopted as the Building Code of the City of O'Fallon, in the State of Missouri, for regulating and governing the conditions and maintenance of all property, buildings and structures; by providing the standards for supplied utilities and facilities and other physical things and conditions essential to ensure that structures are safe, sanitary and fit for occupation and use; and the condemnation of buildings and structures unfit for human occupancy and use and the demolition of such structures as herein provided; providing for the issuance of permits and collection of fees therefore; and each and all of the regulations, provisions, conditions and terms of said Building Code on file in the office of the City Clerk of the City of O'Fallon, Missouri and hereby referred to, adopted, and made a part hereof, as if fully set out in this article, with the additions, insertions, deletions and changes, if any, prescribed in Section 500.020 of this article.

Section 500.020: ADDITIONS, INSERTIONS AND CHANGES

The following numbered subsections of the International Building Code, 2021 Edition, including appendix K, as published by the International Code Council, Inc., are hereby amended by additions, insertions, deletions and changes so that such section and subsections read as follows:

(CHAPTER 1 ADMINISTRATION)

(SECTION 101 GENERAL)

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

(SECTION 103 CODE COMPLIANCE AGENCY)

103.1 Creation of enforcement agency. The Building and Code Enforcement department is hereby created, and the official in charge shall be known as the Building Official.

(SECTION 105 PERMITS)

105.2 Work exempt from permit. 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. 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, impounding Class I, II or IIIA liquids, or altering the channelized drainage of any drainage area or lot.
2. 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.
3. Sidewalks and driveways not more than 30 inches (762 mm) above adjacent grade, and not over any basement or story below and are not part of an accessible route.
4. Painting, papering, tiling, carpeting, cabinets, counter tops, tuckpointing, siding, and similar finish work.
5. Temporary motion picture, television and theater stage sets and scenery.
6. 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.
7. Shade cloth structures constructed for nursery or agricultural purposes, not including service systems.
8. 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.
9. Nonfixed and movable fixtures, cases, racks, counters and partitions not over 5 feet 9 inches (1753 mm) in height.
10. Flag poles less than 35 feet in height
11. Replacement of doors and windows where the opening size is not increased or decreased.
12. Reroofing of asphalt shingle roofs.

Electrical:

1. Repairs and maintenance: Minor repair work, including the replacement of lamps or the connection of approved portable electrical equipment to approved permanently installed receptacles.
2. 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 a power supply and the installations of towers and antennas.

3. 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 (0.75 kW) or less.

Plumbing:

1. The stopping of leaks in drains, water, soil, waste or vent pipe, provided, however, that if any concealed trap, drain pipe, 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. Clearing stoppages or repairing leaks in pipes, valves, or fixtures and removing and reinstalling 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.

(SECTION 107 CONSTRUCTION DOCUMENTS)

107.1.90 Professionally prepared plans. Where required, all plans and specifications shall be prepared, signed and sealed by an architect or engineer licensed and registered in the State of Missouri to render this service.

Exceptions:

The following exceptions are at the discretion of the Building Official:

1. Single-family dwelling plans prepared and designed for use by the owner of the proposed structure and built for his exclusive use and occupancy for a period of not less than one (1) year.
2. Miscellaneous residential structures such as room additions, carports, garages, sheds, etc.

(SECTION 109 FEES)

109.2 Schedule of permit fees. Fees related to administering this Code shall be as set forth elsewhere in this Chapter of the Municipal Code.

109. 2.90 Integrated permits. The Building Official, at his / her discretion, may issue integrated building, plumbing, electrical and / or mechanical permits.

(SECTION 110 INSPECTIONS)

110.90 Workmanship. Repairs, maintenance work, alterations or installations which are caused directly or indirectly by the enforcement of this Code shall be executed and installed in a workmanlike manner in compliance with this Code, in accordance with industry standards, and in accordance with the manufacturer's installation instructions.

(SECTION 113 MEANS OF APPEALS)

113.1 General Any applicant shall have the right to appeal a decision of the Building Official to the Board of Adjustment. Application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted there under have been incorrectly interpreted, the provisions of this Code do not fully apply, or an equivalent form of construction is to be used. The appellant shall have the burden to prove that an equivalent form of construction complies with the intent of the provisions of this code, and that the material, method, or work offered is, for the purpose intended, at least the equivalent of that prescribed in this code in quality, strength, effectiveness, fire resistance, durability, and safety.

113.1.90 Board of Appeals. Whenever "Board of Appeals" is used in this Code, it shall mean Board of Adjustment.

(SECTION 114 VIOLATIONS)

114.2 Notice of violation. When the Building Official determines that a violation of this Code exists, other than a violation of a stop work order, he shall immediately notify the violator. The notification shall be in writing and shall be delivered to the violator or his legally authorized representative or mailed 1st class US Mail to his last known address. Any person having been notified that a violation, other than a violation of a stop work order, exists and who fails to abate the violation within ten (10) days after notification shall be subject to the penalties enumerated in Section 114.4.

(CHAPTER 5 GENERAL BUILDING HEIGHTS AND AREAS)**(SECTION 506 BUILDING AREA)**

506.1.90 Minimum residential dwelling unit areas. The minimum residential dwelling unit area shall be in accordance with Section 500.030.

(CHAPTER 12 INTERIOR ENVIRONMENT)**(SECTION 1208 INTERIOR SPACE DIMENSIONS)**

1208.90 Minimum residential dwelling unit areas. The minimum residential dwelling unit area shall be in accordance with Section 500.030.

(CHAPTER 16 STRUCTURAL DESIGN)**(SECTION 1612 FLOOD LOADS)**

1612.3 Establishment of flood hazard areas. To establish flood hazard areas, the applicable governing authority shall adopt a flood hazard map and supporting data. The flood hazard map shall include, at a minimum, areas of special flood hazard as identified by the Federal Emergency Management Agency in an engineering report entitled The Flood Insurance Study for the "City of O'Fallon," dated January 20, 2016, as amended or revised with the accompanying Flood Insurance Rate Map (FIRM) and related supporting data along with any revisions thereto. The adopted flood hazard map supporting data are hereby adopted by reference and declared to be part of this decision.

(CHAPTER 29 PLUMBING SYSTEMS)**(SECTION 2902 MINIMUM PLUMBING FACILITIES)**

2902.2 Separate facilities. Where plumbing fixtures are required, separate facilities shall be provided for each sex.

Exceptions:

1. Separate facilities shall not be required for dwelling units and sleeping units.
2. Separate facilities shall not be required in structures or tenant spaces with a total occupant load, including both employees and customers, of 25 or fewer.
3. Separate facilities shall not be required in mercantile occupancies in which the maximum occupant load is 100 or fewer.
4. Separate facilities shall not be required in business occupancies in which the maximum occupant load is 25 or fewer.
5. Separate facilities shall not be required to be designated by sex where single-user toilets rooms are provided in accordance with Section 2902.1.2.
6. Separate facilities shall not be required where rooms having both water closets and lavatory fixtures are designed for use by both sexes and privacy for water closets are

installed in accordance with Section 405.3.4 of the International Plumbing Code. Urinals shall be located in an area visually separated from the remainder of the facility or each urinal that is provided shall be located in a stall.

7. Separate facilities shall not be required in structures or tenant spaces functioning solely as exercise facilities with a square footage less than 1500 square feet.

(CHAPTER 31 SPECIAL CONSTRUCTION)

(SECTION 3107 SIGNS)

3107.1 General. Signs shall be designed, constructed and maintained in accordance with this code and the Municipal Code of the City of O'Fallon, Missouri.

SECTION 2:

Sections 500.060 and 500.070 of Article II of Chapter 500 of Title V of the Code of Ordinances of the City of O'Fallon, Missouri, are hereby repealed, and two new Sections, initially to be designated as 500.060 and 500.070, are hereby enacted in lieu thereof to read as follows:

**TITLE V. BUILDING AND CONSTRUCTION
CHAPTER 500: BUILDING REGULATIONS
ARTICLE II: INTERNATIONAL PROPERTY MAINTENANCE CODE**

SECTION 500.060: ADOPTION OF INTERNATIONAL PROPERTY MAINTENANCE CODE

That certain document, a copy which is on file in the office of the City Clerk of the City of O'Fallon, Missouri, being marked and designated as the International Property Maintenance Code, 2021 Edition including Appendix A, as published by the International Code Council, be and is hereby adopted as the Property Maintenance Code of the City of O'Fallon, in the State of Missouri, for regulating and governing the conditions and maintenance of all property, buildings and structures; by providing the standards for supplied utilities and facilities and other physical things and conditions essential to ensure that structures are safe, sanitary and fit for occupation and use; and the condemnation of buildings and structures unfit for human occupancy and use, and the demolition of such existing structures as herein provided; providing for the issuance of permits and collection of fees therefore; and each and all of the regulations, provisions, conditions and terms of said Property Maintenance Code on file in the office of the City Clerk of the City of O'Fallon, Missouri are hereby referred to, adopted, and made a part hereof, as if fully set out in this Article, with the additions, insertions, deletions, and changes, if any, prescribed in Section 500.070 of this Article.

Section 500.070: ADDITIONS, INSERTIONS AND CHANGES

The following numbered subsections of the International Property Maintenance Code, 2021 Edition, including Appendix A, as published by the International Code Council, Inc., are hereby amended by additions, insertions, deletions, and changes so that such section and subsections read as follows:

(CHAPTER 1 ADMINISTRATION)

(SECTION 101 GENERAL)

101.1 Title. These regulations shall be known as the International Property Maintenance Code of the City of O'Fallon, Missouri, hereinafter referred to as "this code."

(SECTION 102 APPLICABILITY)

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 International Building Code, International Existing Building Code, International Energy Conservation Code, International Fire Code, International Fuel Gas Code, International Mechanical Code, International Residential Code, International Plumbing Code and NFPA 70. Nothing in this code shall be construed to cancel, modify or set aside any provision of the Municipal Code, City of O'Fallon, Missouri.

(SECTION 103 CODE COMPLIANCE AGENCY)

103.1 General. The Building and Code Enforcement department is hereby created and the official in charge thereof shall be known as the code official. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

(SECTION 104 FEES)

103.5 Fees. Fees related to administration of this code shall be as set forth elsewhere in this Chapter of the Municipal Code.

(SECTION 107 MEANS OF APPEAL)

107.1 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 O'Fallon, Missouri.

107.2 Limitations of authority. Delete in its entirety

107.3 Qualifications. Delete in its entirety

107.4 Administration. Delete in its entirety

(SECTION 107 BOARD OF APPEALS)

108.1 Membership of board. Delete in its entirety

(SECTION 110 STOP WORK ORDER)

110.4 Failure to comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable to a fine of not less than one hundred dollars (\$100.00) or more than five hundred dollars (\$500.00).

(CHAPTER 3 GENERAL REQUIREMENTS)

(SECTION 302 EXTERIOR PROPERTY AREAS)

302.3 Sidewalks and driveways. Sidewalks, walkways, stairs, driveways, parking lots, private streets, parking spaces and similar areas shall be kept in a proper state of repair, and maintained free from hazardous conditions.

302.4 Weeds. Refer to City of O'Fallon Municipal Code Section 220.010, Nuisances Prohibited

302.7 Accessory structures. Accessory structures, including detached garages, fences, private signs, sheds, exterior storage structures, flag poles and walls, shall be maintained structurally sound and in good repair.

302.8 Motor vehicles. Refer to City of O'Fallon Municipal Code Section 220.010, Nuisances Prohibited regarding derelict vehicles.

Exception:

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

302.9 Defacement of property. Refer to City of O'Fallon Municipal Code Section 220.010, Nuisances Prohibited regarding graffiti. It shall be the responsibility of the owner to restore said surface to an approved state of maintenance and repair. Painting over graffiti shall be a color to match or closely match the existing building.

(SECTION 304 EXTERIOR STRUCTURE)

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 mold/algae. 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 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 watertight. 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.

304.7 Roofs and drainage. The roof and flashing shall be sound, tight, and not have defects that admit rain. Missing shingles shall be replaced with similar roof covering. Roof drainage shall be adequate to prevent dampness or deterioration in the walls or interior portion of the structure. Roof drains, gutters and downspouts shall be maintained in good repair and free from obstructions. Roof water shall not be discharged in a manner that creates a public nuisance.

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.

(CHAPTER 6 MECHANICAL AND ELECTRICAL REQUIREMENTS)

(SECTION 602 HEATING FACILITIES)

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.

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.

SECTION 3:

Sections 500.080 and 500.090 of Article III of Chapter 500 of Title V of the Code of Ordinances of the City of O'Fallon, Missouri, are hereby repealed, and two new Sections, initially to be designated as 500.080 and 500.090, are hereby enacted in lieu thereof to read as follows:

**TITLE V. BUILDING AND CONSTRUCTION
CHAPTER 500: BUILDING REGULATIONS
ARTICLE III: FIRE CODE**

SECTION 500.080: ADOPTION OF FIRE CODE

That certain document, a copy which is on file in the office of the City Clerk of the City of O'Fallon, Missouri, being marked and designated as the International Fire Code, 2021 edition, including appendices B and F, as published by the International Code Council, be and is hereby adopted as the Fire Code of the City of O'Fallon, in the State of Missouri, for regulating and governing the safeguarding of life and property from fire and explosion hazards arising from the storage, handling and use of hazardous substances, materials and devices, and from conditions hazardous to life or property in the occupancy of buildings and premises has herein provided; providing for the issuance of permits and collection of fees therefore; and each and all of the regulations, provisions, conditions and terms of said Fire Code on file in the office of the City Clerk of the City of O'Fallon, Missouri, are hereby referred to, adopted, and made a part hereof, as if fully set out in this article, with the additions, insertions, deletions and changes, if any, prescribed in Section 500.090 of this article.

SECTION 500.090: ADDITIONS, INSERTIONS AND CHANGES

The following numbered subsections of the International Fire Code, 2021 Edition, including appendices B and F, as published by the International Code Council, Inc., are hereby amended by additions, insertions, deletions and changes so that such section and subsections read as follows:

(CHAPTER 1 ADMINISTRATION)

(SECTION 101 SCOPE AND GENERAL REQUIREMENTS)

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

(SECTION 103 DEPARTMENT OF FIRE PREVENTION)

103.1 General. The Building and Code Enforcement department is hereby created and the official in charge thereof shall be known as the *fire code official*. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

(SECTION 106 CONSTRUCTION DOCUMENTS)

106.90 Professionally prepared plans. Where required, all plans and specifications shall be prepared, signed and sealed by an architect or engineer licensed and registered in the State of Missouri to render this service.

(SECTION 108 INSPECTIONS)

108.90 Workmanship. Repairs, maintenance work, alterations or installations which are caused directly or indirectly by the enforcement of this Code shall be executed and installed in a workmanlike manner in compliance with this Code, in accordance with industry standards, and in accordance with the manufacturer's installation instructions.

(SECTION 111 MEANS OF APPEAL)

111.1 Board of appeals established. For the purposes of this code, all appeals shall be in accordance with the procedure established for the Building Code of the City of O'Fallon, Missouri.

111.2 Limitations on authority. Delete in its entirety.

111.3 Qualifications. Delete in its entirety.

111.4 Administration. Delete in its entirety.

(SECTION 112 VIOLATIONS)

112.3 Notice of violation. When the Building Official determines that a violation of this Code exists, other than a stop work order, he/she shall immediately notify the violator. The notification shall be in writing and shall be delivered to the violator or his legally authorized representative or mailed 1st class US mail to his/her last known address. Any person having been notified that a violation other than a stop work order exists and who fails to abate the violation within ten (10) days after notification shall be subject to the penalties enumerated in Section 112.4.

112.4 Violation penalties. Any person, firm or corporation who violates any provisions of this Ordinance, or fails to comply with any of the requirements thereof, or erects, constructs, alters or repairs a structure in violation of an approved plan or directive of the Building Official, or of a permit or certificate issued under the provisions of this Ordinance or previous ordinance, or who shall continue any work in or about a structure after having been served a stop work order, except such work as that person is directed to perform to remove a violation or unsafe conditions, or any owner or tenant of a building or premises in which such violation shall exist, shall upon conviction thereof be punishable by a fine of not more than \$500.00 dollars or by imprisonment not exceeding 90 days, or by both such fine and imprisonment. Each day that a violation continues shall be deemed a separate offense.

(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 adopting ordinance. The automatic sprinkler system shall be installed as established by the local fire district and the State of Missouri.

(CHAPTER 56 EXPLOSIVES AND FIREWORKS)

(SECTION 5601 GENERAL)

5601.1.3 Fireworks. Fireworks shall comply with Section 215.690 of the Municipal Code of the City of O'Fallon, Missouri.

(SECTION 5609 TEMPORARY STORAGE OF CONSUMER FIREWORKS)

5609.1 General. Delete in its entirety.

(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 within the City limits of the City of O'Fallon, Missouri unless approved by ordinance.

Exception: Above-ground tanks are allowed in industrial-zoned properties.

(SECTION 5706 SPECIAL OPERATIONS)

5706.2.4.4 Locations where above-ground tanks are prohibited. Storage of Class I and II liquids in above-ground tanks is prohibited within the limits established by law as the limits of districts in which such storage is prohibited outside of buildings is prohibited within the City limits of the City of O'Fallon, Missouri, unless approved by ordinance.

(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 within the City limits of the City of O'Fallon, Missouri, unless approved by ordinance.

(CHAPTER 61 LIQUIFIED PETROLEUM GASES)

(SECTION 6104 LOCATION OF LP -GAS CONTAINERS)

6104.2 Maximum capacity within established limits. Within the limits established by law 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) within the City limits of the City of O'Fallon, Missouri, unless specifically approved by ordinance.

Exception 1: Storage is allowed in industrial zoned properties.

Exception 2: In particular installations, this capacity limit shall be determined by the Fire Code Official, after construction of special features such as topographical conditions, nature of

occupancy, and proximity to buildings, capacity of proposed LP-gas container, degree of fire protection to be provided and capabilities of the local Fire Department.

SECTION 4:

Sections 500.120 and 500.125 of Article IV of Chapter 500 of Title V of the Code of Ordinances of the City of O'Fallon, Missouri, are hereby repealed, and two new Sections, initially to be designated as 500.120 and 500.125, are hereby enacted in lieu thereof to read as follows:

**TITLE V. BUILDING AND CONSTRUCTION
CHAPTER 500: BUILDING REGULATIONS
ARTICLE IV: ENERGY CONSERVATION CODE**

SECTION 500.120: ADOPTION OF ENERGY CONSERVATION CODE

That certain document, a copy which is on file in the office of the City Clerk of the City of O'Fallon, Missouri, being marked and designated as the International Energy Conservation Code, 2021 edition, as published by the International Code Council, be and is hereby adopted as the Energy Conservation Code of the City of O'Fallon, in the State of Missouri, for regulating and governing energy efficient building envelopes and installation of energy-efficient mechanical, lighting and power systems as herein provided; providing for the issuance of permits and collection of fees therefore; and each and all of the regulations, provisions, conditions and terms of said Energy Conservation Code on file in the office of the City Clerk of the City of O'Fallon, Missouri, are hereby referred to, adopted, and made a part hereof, as if fully set out in this article, with the additions, insertions, deletions and changes, if any, prescribed in Section 500.125 of this article.

SECTION 500.125: ADDITIONS, INSERTIONS AND CHANGES

The following numbered subsections of the International Energy Conservation Code, 2021 Edition, as published by the International Code Council, Inc., are hereby amended by additions, insertions, deletions and changes so that such section and subsections 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 O'Fallon, Missouri, and shall be cited as such. It is referred to herein as "this code."

(SECTION C104 FEES)

C104.5 Fees. Delete in its entirety.

(SECTION C105 INSPECTIONS)

C105.90 Workmanship. Repairs, maintenance work, alterations or installations which are caused directly or indirectly by the enforcement of this Code shall be executed and installed in a workmanlike manner in compliance with this Code, in accordance with industry standards, and in accordance with the manufacturer's installation instructions.

(SECTION C109 STOP WORK ORDER)

C109.4 Failure to comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable to a fine of not less than \$100.00 dollars or more than \$500.00 dollars.

(SECTION C110 BOARD OF APPEAL)

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 O'Fallon, Missouri.

C110.2 Limitations on authority. Delete in its entirety.

C110.3 Qualifications. Delete in its entirety.

(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 the City of O'Fallon, Missouri, and shall be cited as such. It is referred to herein as "this code."

R101.2 Scope. This code applies to residential buildings and the building sites and associated systems and equipment.

Exception:

Residential buildings and their accessory structures within the scope of the International Residential Code shall utilize the energy provisions of that code.

SECTION 5:

Sections 500.150 and 500.160 of Article V of Chapter 500 of Title V of the Code of Ordinances of the City of O'Fallon, Missouri, are hereby repealed and two new Sections initially to be designated as 500.150 and 500.160, are hereby enacted in lieu thereof to read as follows:

**TITLE V. BUILDING AND CONSTRUCTION
CHAPTER 500: BUILDING REGULATIONS
ARTICLE V: MECHANICAL CODE**

SECTION 500.150: ADOPTION OF MECHANICAL CODE

That certain document, a copy which is on file in the office of the City Clerk of the City of O'Fallon, Missouri, being marked and designated as the International Mechanical Code, 2021 edition, as published by the International Code Council, be and is hereby adopted as the Mechanical Code of the City of O'Fallon, in the State of Missouri, for regulating and governing the design, construction, quality of materials, erection, installation, alteration, repair, location, relocation, replacement, addition to, use or maintenance of mechanical plumbing systems as herein provided; providing for the issuance of permits and collection of fees therefore; and each and all of the regulations, provisions, conditions and terms of said Mechanical Code on file in the office of the City Clerk of the City of O'Fallon , Missouri, are hereby referred to, adopted, and made a part hereof, as if fully set out in this article, with the additions, insertions, deletions and changes, if any, prescribed in Section 500.160 of this article.

SECTION 500.160: ADDITIONS, INSERTIONS AND CHANGES

The following numbered subsections of the International Mechanical Code, 2021 Edition, as published by the International Code Council, Inc., are hereby amended by additions, insertions, deletions and changes so that such section and subsections read as follows:

(CHAPTER 1 SCOPE AND APPLICATION)

(SECTION 101 GENERAL)

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

(SECTION 103 CODE COMPLIANCE AGENCY)

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

103.90 Licensing of mechanical contractors. Any contractor wishing to enter into the mechanical business within the City of O'Fallon shall first be duly examined and be successfully passed and licensed by St. Charles County, Missouri, and hold an active license as Class A or Class B.

(SECTION 109 FEES)

109.2 Schedule of permit fees. Fees related to the administration of this Code shall be as set forth elsewhere in this Chapter of the Municipal Code.

109.6 Refunds. Delete this section in its entirety.

(SECTION 112 INSPECTIONS AND TESTING)

112.90 Workmanship. Repairs, maintenance work, alterations, or installations which are caused directly or indirectly by the enforcement of this Code shall be executed and installed in a workmanlike manner in compliance with this Code, in accordance with industry standards, and in accordance with the manufacturer's installation instructions.

(SECTION 113 MEANS OF APPEAL)

SECTION 113. Delete this section in its entirety

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 O'Fallon, Missouri.

(SECTION 115 VIOLATIONS)

115.4 Violation penalties. Any person, firm, or corporation who violates any provisions of this Ordinance, or who fails to comply with any of the requirements thereof, or who erects, constructs, alters or repairs a structure in violation of an approved plan or directive of the Building Official, or of a permit or certificate issued under the provisions of this Ordinance, or who shall continue any work in or about a structure after having been served a stop work order, except such work as that person is directed to perform to remove a violation or unsafe conditions, or any owner or tenant of a building or premises in which such violation shall exist, shall conviction thereof be punishable by a fine of not more than \$500.00 dollars or by imprisonment not exceeding 90 days, or by both such fine and imprisonment. Each day that a violation continues shall be deemed a separate offense.

SECTION 6:

Sections 500.190 and 500.200 of Article VI of Chapter 500 of Title V of the Code of Ordinances of the City of O'Fallon, Missouri, are hereby repealed, and two new Sections, initially to be designated as 500.190 and 500.200, are hereby enacted in lieu thereof to read as follows:

**TITLE V. BUILDING AND CONSTRUCTION
CHAPTER 500: BUILDING REGULATIONS
ARTICLE VI: ELECTRICAL CODE**

SECTION 500.190: ADOPTION OF ELECTRICAL CODE

That certain document, a copy which is on file in the office of the City Clerk of the City of O'Fallon, Missouri, being marked and designated as the National Electric Code, 2020 edition, as published by the National Fire Protection Agency, be and is hereby adopted as the Electrical Code of the City of O'Fallon, in the State of Missouri, for regulating and governing the design, construction, quality of materials, erection, installation, alteration, repair, location, replacement, addition to, use or maintenance of electrical systems as herein provided; utilizing Appendix K "Administrative Provisions " of the Building Code adopted in Section 500.010; providing for the issuance of permits and collection of fees therefore; and each and all of the regulations, provisions, conditions and terms of said Electrical Code on file in the office of the City Clerk of the City of O'Fallon, Missouri, are hereby referred to, adopted, and made a part hereof, as if fully set out in this article, with the additions, insertions, deletions and changes, if any, prescribed in Section 500.200 of this article.

SECTION 500.200: ADDITIONS, INSERTIONS, AND CHANGES

The following numbered subsections of the National Electric Code, 2020 Edition, as published by the National Fire Protection Agency, are hereby amended by additions, insertions, deletions, and changes so that such sections and subsections read as follows:

(ARTICLE 90 INTRODUCTION)

90.1 (D) Administration of this code. The administration of this code shall be in accordance with Appendix K "Administrative Provisions" of the Building Code adopted in Section 500.010.

90.1 (E) Licensing of Electrical Contractors. Any contractor wishing to enter into the electrical business within the City of O'Fallon shall first be duly examined and be successfully passed and licensed by St. Charles County, Missouri, or the State of Missouri and hold an active license.

90.1 (F) Workmanship. Repairs, maintenance work, alterations or installations which are caused directly or indirectly by the enforcement of this Code shall be executed and installed in a workmanlike manner in compliance with this Code, in accordance with industry standards, and in accordance with the manufacturer's installation instructions.

SECTION 7:

Sections 500.230 and 500.240 of Article VII of Chapter 500 of Title V of the Code of Ordinances of the City of O'Fallon, Missouri, are hereby repealed and two new Sections initially to be designated as 500.230 and 500.240, are hereby enacted in lieu thereof to read as follows:

**TITLE V. BUILDING AND CONSTRUCTION
CHAPTER 500: BUILDING REGULATIONS
ARTICLE VII: PLUMBING CODE**

SECTION 500.230: ADOPTION OF PLUMBING CODE

That certain document, a copy which is on file in the office of the City Clerk of the City of O'Fallon, Missouri, being marked and designated as the International Plumbing Code, 2021 edition, including appendices E, as published by the International Code Council, be and is hereby adopted as the Plumbing Code of the City of O'Fallon, in the State of Missouri, for regulating and governing the design, construction, quality of materials, erection, installation, alteration, repair, location, replacement, addition to, use or maintenance of plumbing systems as herein provided; providing for the issuance of permits and collection of fees therefore; and each and all of the regulations, provisions, conditions and terms of said Plumbing Code on file in the office of the City Clerk of the City of O'Fallon, Missouri are hereby referred to, adopted, and made a part hereof, as if fully set out in this article, with the additions, insertions, deletions and changes, if any, prescribed in Section 500.240 of this article.

SECTION 500.240: ADDITIONS, INSERTIONS AND CHANGES

The following numbered subsections of the International Plumbing Code, 2021 Edition, including appendices E, as published by the International Code Council, Inc., are hereby amended by additions, insertions, deletions and changes so that such section and subsections read as follows:

(CHAPTER 1 SCOPE AND ADMINISTRATION)

(SECTION 101 GENERAL)

101.1 Title. These regulations shall be known as the International Plumbing Code of the City of O'Fallon, Missouri, hereinafter referred to as "this code."

(SECTION 103 CODE COMPLIANCE AGENCY)

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

103.90 Licensing of plumbing/drainlaying contractors. Any contractor wishing to enter into the plumbing business within the City of O'Fallon shall first be duly examined and be successfully passed and licensed by St. Charles County, Missouri and hold an active license.

(SECTION 109 FEES)

109.2 Schedule of permit fees. Fees related to administration of this Code shall be as set forth elsewhere in this Chapter of the Municipal Code.

109.6 Refunds. Delete this section in its entirety.

(SECTION 112 INSPECTIONS AND TESTING)

112.90 Workmanship. Repairs, maintenance work, alterations, or installations which are caused directly or indirectly by the enforcement of this Code shall be executed and installed in a workmanlike manner in compliance with this Code, in accordance with industry standards, and in accordance with the manufacturer's installation instructions.

(SECTION 113 MEANS OF APPEALS)

113.1 GENERAL. Application for appeal. Any applicant shall have the right to appeal a decision of the Building Official to the Board of Adjustment. Application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted there under have been incorrectly interpreted, the provisions of this Code do not fully apply, or an equivalent form of construction is to be used. The appellant shall have the burden to prove that an equivalent form of construction complies with the intent of the provisions of this code, and that the material, method, or work offered is, for the purpose intended, at least the equivalent of that prescribed in this code in quality, strength, effectiveness, fire resistance, durability, and safety.

113.3 Qualifications. Delete this section in its entirety

113.1.90 Board of appeals. Whenever "Board of Appeals" is used in this Code, it shall mean Board of Adjustment.

(SECTION 114 BOARD OF APPEALS)

114.1 Membership of board. Delete this section in its entirety

(SECTION 115 VIOLATIONS)

115.4 Violation penalties. Any person, firm or corporation who violates any provisions of this Ordinance, or fails to comply with any of the requirements thereof, or erects, constructs, alters or repairs a structure in violation of an approved plan or directive of the Building Official, or of a permit or certificate issued under the provisions of this Ordinance or previous ordinance, or who shall continue any work in or about a structure after having been served a stop work order, except such work as that person is directed to perform to remove a violation or unsafe conditions, or any owner or tenant of a building or premises in which such violation shall exist, shall upon conviction thereof be punishable by a fine of not more than \$500.00 dollars or by imprisonment not exceeding 90 days, or by both such fine and imprisonment. Each day that a violation continues shall be deemed a separate offence.

(CHAPTER 3 GENERAL REQUIREMENTS)

(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 a minimum of 18 inches (457 mm) below finished grade at the point of septic tank connection. Building sewers shall be a minimum of 36 inches (915 mm) below grade.

(SECTION 306 TRENCHING, EXCAVATION AND BACKFILL)

306.90 Tracer wire or other utility location technology. Tracer wire or other utility location technology shall be installed as required by RSMo 319.033 and the local utility.

(CHAPTER 4 FIXTURES, FAUCETS AND FIXTURE FITTINGS)

(SECTION 403 MINIMUM PLUMBING FACILITIES)

403.2 Separate facilities. Where plumbing fixtures are required, separate facilities shall be provided for each sex.

Exceptions:

1. Separate facilities shall not be required for dwelling units and sleeping units.
2. Separate facilities shall not be required in structures or tenant spaces with a total occupant load, including both employees and customers, of 25 or fewer.
3. Separate facilities shall not be required in mercantile occupancies in which the maximum occupant load is 100 or fewer.
4. Separate facilities shall not be required in structures or tenant spaces functioning solely as exercise facilities with a square footage less than 1500 square feet.

(SECTION 410 DRINKING FOUNTAINS)

410.2 Small occupancies. Drinking fountains shall not be required for an occupant load of 15 or fewer.

Exceptions:

1. Drinking fountains are not required in spaces functioning as Mercantile use less than 2500 square feet.
2. In occupancies of less than 25, water coolers or bottled water dispensers shall be permitted to be substituted where drinking fountains are required.

(CHAPTER 6 WATER SUPPLY AND DISTRIBUTION)

(SECTION 602 WATER REQUIRED)

602.2.90 Potable water connection. 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. When a potable public water supply is not available, an individual water supply shall be provided.

(SECTION 608 PROTECTION OF POTABLE WATER SUPPLY)

608.17.4.90 Annual testing. All reduced pressure backflow devices and check assemblies shall be registered and tested annually by a certified individual as authorized by the State of Missouri.

(CHAPTER 7 SANITARY DRAINAGE)**(SECTION 701 GENERAL)**

701.2 Connection to sewer required. The sanitary drainage system of any building in which plumbing fixtures are installed shall connect 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. When a public sewer is not available, the sanitary drainage shall be connected to an approved private sewage disposal system installed in accordance with the Private Sewage Disposal Code of the City of O'Fallon, Missouri, and all State, Federal, and St. Charles County regulations. All private sewage disposal systems shall be maintained and function without any ground surface discharge. When a conflict occurs between these regulations the most restrictive regulation shall apply unless otherwise approved by the Building Official.

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 or 14.

(SECTION 702 MATERIALS)

702.3 Building sewer pipe. Building sewer pipe shall conform to one of the standards listed in Table 702.3. All sewer laterals will be polyvinyl chloride schedule 40 or equivalent as determined by the City of O'Fallon.

(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 above the roof.

SECTION 8:

Section 500.270 of Article VIII of Chapter 500 of Title V of the Code of Ordinances of the City of O'Fallon, Missouri, is hereby repealed, and one new Section initially to be designated as 500.270 is hereby enacted in lieu thereof to read as follows:

**TITLE V. BUILDING AND CONSTRUCTION
CHAPTER 500: BUILDING REGULATIONS
ARTICLE VIII: PRIVATE SEWAGE DISPOSAL CODE**

SECTION 500.270: ADOPTION OF PRIVATE SEWAGE DISPOSAL CODE

All private sewage disposal systems shall comply with the requirements of the State of Missouri and St. Charles County. Permits shall be issued and inspections conducted by St. Charles County.

SECTION 9:

Sections 500.330 and 500.340 of Article X of Chapter 500 of Title V of the Code of Ordinances of the City of O'Fallon, Missouri, are hereby repealed, and two new Sections, initially to be designated as 500.330 and 500.340, are hereby enacted in lieu thereof to read as follows:

**TITLE V. BUILDING AND CONSTRUCTION
CHAPTER 500: BUILDING REGULATIONS
ARTICLE X: INTERNATIONAL RESIDENTIAL CODE**

SECTION 500.330: ADOPTION OF INTERNATIONAL RESIDENTIAL CODE

That certain document, a copy which is on file in the office of the City Clerk of the City of O'Fallon, Missouri, being marked and designated as the International Residential Code, 2021 Edition, including Appendices AE, AF, AG, AH, AI, AJ, AK, and AP, as published by the International Code Council, be and is hereby adopted as the Residential Code of the City of O'Fallon, in the State of Missouri, for regulating and governing the construction, alteration, movement, enlargement, replacement, repair, equipment, location, removal and demolition of detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three (3) stories in height with separate means of egress as herein provided; providing for the issuance of permits and collection of fees therefore; and each and all of the regulations, provisions, conditions and terms of said Residential Code on file in the office of the City Clerk of the City of O'Fallon, Missouri, are hereby referred to, adopted and made a part hereof, as if fully set out in this Article, with the additions, insertions, deletions and changes, if any, prescribed in Section 500.340.

The following numbered subsections of the International Residential Code, 2021 Edition, including Appendices AE, AF, AG, AH, AI, AJ, AK, and AP, as published by the International Code Council, Inc., are hereby amended by additions, insertions, deletions and changes so that such section and subsections read as follows:

SECTION 500.340: ADDITIONS, INSERTIONS AND CHANGES

The following numbered subsections of the International Residential Code, 2021 Edition, including Appendices AE, AF, AG, AH, AI, AJ, AK, and AP, as published by the International Code Council, Inc., are hereby amended by additions, insertions, deletions and changes so that such section and subsections read as follows:

(CHAPTER 1 ADMINISTRATION)

(SECTION R101 GENERAL)

R101.1 Title. These provisions shall be known as the Residential Code for One and Two-family Dwellings of the City of O'Fallon, Missouri, and shall be cited as such. They will be referred to herein as "this code."

(SECTION R103 DEPARTMENT OF BUILDING SAFETY)

R103.1 Creation of enforcement agency. The Building and Code Enforcement department is hereby created and the official in charge thereof shall be known as the building official.

R103.2 Appointment. The Building Official shall be appointed as approved by ordinance.

R103.90 Work completed by licensed contractors. All mechanical, electrical, plumbing, and drainlaying work shall be performed by a contractor licensed in accordance with Sections 103.90.1 through 103.90.4.

Exceptions:

1. Work in which a permit is not required.
2. Minor work, as determined by the Building Official, when the work is performed by the owner to the dwelling in which he/she resides.

R103.90.1 Licensing of mechanical contractors. Any contractor wishing to enter into the mechanical business within the City of O'Fallon, shall first be duly examined and be successfully passed and licensed by St. Charles County, Missouri, or the state of Missouri and hold an active license as Class A or Class B.

R103.90.2 Licensing of electrical contractors. Any contractor wishing to enter into the electrical business within the City of O'Fallon, shall first be duly examined and be successfully passed and licensed by St. Charles County, Missouri, or the state of Missouri and hold an active license as electrical contractor.

R103.90.3 Licensing of plumbing contractors. Any contractor wishing to enter into the plumbing business within the City of O'Fallon, shall first be duly examined and be successfully passed and licensed by St. Charles County, Missouri, or the state of Missouri and hold an active license as plumbing contractor.

R103.90.4 Licensing of drainlaying contractors. Any contractor wishing to enter into the drainlaying business within the City of O'Fallon, shall first be duly examined and be successfully passed and licensed by St. Charles County, Missouri, or the state of Missouri and hold an active license as drainlaying contractor.

(SECTION R105 PERMITS)

R105.2 Work exempt from permit. Exemption 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. Other than storm shelters, one-story detached accessory structures, provided that the floor area does not exceed 200 square feet (18.58 m²).
2. Fences not over 7 feet (2134 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, impounding Class I, II or IIIA liquids, or altering the channelized drainage of any drainage area or lot.
4. Water tanks supported directly upon grade if the capacity does not exceed 5,000 gallons (18 927 L) and the ratio of height to diameter or width does not exceed 2 to 1.

5. Sidewalks and driveways on private property and not affecting the right-of-way.
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 (1372 mm) from the exterior wall and do not require additional support.
10. Flag poles less than thirty-five (35) feet in height.
11. Replacement of doors and windows where the opening size is not increased or decreased.
12. Reroofing of asphalt shingle roofs.
13. Sheds less than 3 feet in depth and a total square footage of less than 25.

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 appliances.
2. Portable ventilation appliances.
3. Portable cooling units.

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 coolers.
7. Self-contained refrigeration systems 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.

(SECTION R106 CONSTRUCTION DOCUMENTS)

R106.3.1 Approval of construction documents. Where the building official 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 official. The other set shall be returned to the applicant, may be kept at the site of work or made available at the time of inspection and shall be open to inspection by the building official or a duly authorized representative.

R106.90 Sprinkler verification. All applications for permit for one- and two-family dwellings shall include a written verification by the builder affirming that a fire sprinkler system was offered to the purchaser prior to entering into the purchase contract. If there is no purchaser at the time that the permit application is submitted, then said verification shall be made as soon as there is a purchaser and prior to the issuance of a certification of occupancy for the new residence.

R106.91 Elevations certified. Any building being erected or constructed in flood plain shall provide an elevation certificate from a Registered Engineer or Land Surveyor, licensed in the State of Missouri, before final approval of the foundation inspection will be given.

(SECTION R108 FEES)

R108.2 Schedule of Permit Fees. On buildings, structures, electrical, gas, mechanical and plumbing systems or alterations requiring a permit, a fee for each permit shall be paid as required, in accordance with Section 500.470 of the City of O'Fallon Municipal Code.

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. Earthwork
2. Stakeouts and other necessary planning procedures

(SECTION R109 INSPECTIONS)

R109.90 Workmanship. Repairs, maintenance work, alterations or installations which are caused directly or indirectly by the enforcement of this code shall be executed and installed in a workmanlike manner in compliance with this code, in accordance with industry standards, and in accordance with the manufacturer's installation instructions.

(SECTION R112 MEANS OF APPEAL)

R112.1 Application for Appeal. For the appeal process and requirements, see Section 113 of the Building Code.

R112.2 Limitations on Authority. Delete in its entirety.

R112.3 Qualifications. Delete in its entirety.

R112.4 Administration. Delete in its entirety.

(SECTION R113 VIOLATIONS)

R113.2 Notice of Violation. When the Building Official determines that a violation of this code exists, he/she shall immediately notify the violator. The notification shall be in writing and shall be delivered to the violator or his/her legally authorized representative or mailed to his/her last known address via 1st Class U.S. Mail. Any person having been notified that a violation other than a stop work order exists and who fails to abate the violation within ten (10) days after notification shall be subject to the penalties enumerated in Section 113.4.

R113.4 Violation Penalties. Any person, firm or corporation who shall violate any provisions of this code, or who shall fail to comply with any of the requirements thereof, or who shall erect, construct, alter or repair a structure in violation of an approved plan or directive of the Building Official, or of a permit or certificate issued under the provisions of this code, or who shall continue any work in or about a structure after having been served a stop work order, or any owner or tenant of a building or premises in which such violation shall exist, shall upon conviction thereof be punishable by a fine of not more than five hundred dollars (\$500.00) or by imprisonment not exceeding ninety (90) days, or by both such fine and imprisonment. Each day that a violation continues shall be deemed a separate offense.

(SECTION R114 STOP WORK ORDER)

R114.2 Unlawful Continuance. Any person who shall continue any work in or about the structure after having been served with a stop work order, except such work as that person is

directed to perform to remove a violation or unsafe condition(s), shall be subject to penalties as prescribed by law liable to penalties as specified in Section 113.4 of this code.

(CHAPTER 3 BUILDING PLANNING)

(SECTION R301 DESIGN CRITERIA)

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

GROUND SNOW LOAD ^o	WIND DESIGN				SEISMIC DESIGN CATEGORY ^f	SUBJECT TO DAMAGE FROM		
	Speed ^d (mph)	Topographic effects ^k	Special wind region ^l	Windborne debris zone ^m		Weathering ^a	Frost line depth ^b	Termites ^c
20 PSF	115 MPH	No	No	No	SDC C	Severe	30 inches	Moderate to Heavy
ICE BARRIER UNDERLAYMENT REQUIRED ^h		FLOOD HAZARDS ^g		AIR FREEZING INDEX ⁱ		MEAN ANNUAL TEMPERATURE		
No		(See Floodplain Administrator)		1000		55.2° F		

MANUAL J DESIGN CRITERIAⁿ

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
580	.99	75	68°F	68°F	-7.5°F	°75.5F
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
38	M	50%	50%	88°F	95°F	7°F

R301.90 Minimum residential dwelling unit areas. The minimum residential dwelling unit area shall be in accordance with Section 500.030.

(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 13/8 inches (35 mm) in thickness, solid or honeycomb-core steel doors not less than 13/8 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, 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 fuel-fired appliances.
3. Portions of floor assemblies shall be permitted to be unprotected where complying with the following:
 - a. The aggregate area of the unprotected floor assembly does not exceed 100 square feet (7.4 m²) per story.
 - b. Fireblocking in accordance with Section R302.11.1 is installed along the perimeter of the unprotected portion to separate the unprotected portion from the remainder of the floor assembly. Areas of the floor assembly covered by HVAC metal plenum, trunk lines, and steel structural beams shall be considered protected
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.
5. Any method as described in APA's System Report SR-405

(SECTION R303 LIGHT, VENTILATION, AND HEATING)

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

(SECTION R306 SANITATION)

R306.90 Hose Bib. Every dwelling shall be equipped with one (1) outside frost proof hose bib which shall be protected from backflow in accordance with Section P2902.4.3 of this code.

R306.91 Floor Drain. All basements shall be equipped with a floor drain within twenty (20) feet of heating/cooling system(s) and water heaters. The floor drain shall comply with Chapter 27, Section P2719 of this code.

(SECTION R309 GARAGES AND CARPORTS)

R309.5 Fire sprinklers. Private garages shall be protected by fire sprinklers where the garage wall has been designed based on Table R302.1(2), Footnote a, and the homeowner has opted to purchase a fire sprinkler system for their residence in accordance with Section 67.281, RSMo. Sprinklers in garages shall be connected to an automatic sprinkler system that complies with Section P2904. Garage sprinklers shall be residential sprinklers or quick-response sprinklers, designed to provide a density of 0.05 gpm/ft². Garage doors shall not be considered obstructions with respect to sprinkler placement.

(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 m²) 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 no more than four (4) risers.
3. Doors protected by a guard in accordance with this code.
4. Doors protected in a manner approved by the Building Official.

R311.3.2 Floor elevations for other exterior doors. Doors other than the required egress door shall be provided with landings and 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 two risers four (4) or fewer risers is located on the exterior side of the door, provided the door does not swing over the stairway.

(SECTION R313 AUTOMATIC FIRE SPRINKLER SYSTEMS)

R313.1 Townhouse automatic fire sprinkler systems. An automatic sprinkler system shall be installed in townhouses, in accordance with §67.281 of the Missouri Revised Statutes.

Exception:

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

R313.2 One- and two-family dwellings automatic sprinkler systems. A builder of a one-or two-family dwelling or townhouse shall offer to any purchaser on or before the time of entering

into the purchase contract the option, at the purchaser's cost, to install or equip fire sprinklers in the dwelling, or townhouse. Notwithstanding any other provision of law to the contrary, no purchaser of such a one- or two-family dwelling or townhouse shall be denied the right to choose or decline to install a fire sprinkler system in such dwelling or townhouse being purchased by any code, ordinance, rule, regulation, order, or resolution by any county or other political subdivision. Any county or other political subdivision shall provide in any such code, ordinance, rule, regulation, order, or resolution the mandatory option for purchasers to have the right to choose and the requirement that builders offer to purchasers the option to purchase fire sprinklers in connection with the purchase of any one- or two family dwelling or townhouse.

Exception:

An automatic sprinkler system shall not be required for additions or alterations to existing buildings that are not already provided with a sprinkler system.

R313.90 Sprinklers in Residential Structures. Notwithstanding the provisions of the Building Code and International Residential Code, as amended and adopted by the City of O'Fallon, Missouri, and in accordance with Section 67.281, RSMo., a builder of one- or two-family dwellings shall offer to any purchaser on or before the time of entering into the purchase contract the option, at the purchaser's cost, to install or equip fire sprinklers in the dwelling, residence, or unit. Notwithstanding any other provision of law to the contrary, no purchaser of such a one- or two-family dwelling shall be denied the right to choose or decline to install a fire sprinkler system in such dwelling or residence being purchased.

(CHAPTER 4 FOUNDATIONS)

(SECTION R404 FOUNDATION AND RETAINING WALLS)

R401.4 Soil tests.

Where quantifiable data created by accepted soil science methodologies indicate expansive soils, compressible soils, shifting soils, or other questionable soil characteristics are likely to be present, the building official shall require a geotechnical evaluation to determine the soil's characteristics at a particular location. This test shall be done by an approved agency using an approved method. The letter shall include specific minimum remediation methods and/or construction details of the building slab, footing, and foundation walls.

R403.1.7 Footings on or adjacent to slopes. The placement of buildings and structures on or adjacent to slopes steeper than 1 unit vertical in 3 units horizontal (33.3-percent slope) shall conform to Sections R403.1.7.1 through R403.1.7.4 or plans as signed and sealed by a registered engineer / design professional licensed in the State of Missouri.

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(5), R404.1.2(6), R404.1.2(7), R404.1.2(8), or 404.1.2(10). 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 buildings assigned to Seismic

Design Category D0, D1 or D2, concrete foundation walls shall also comply with Section R404.1.4.2.

Table R404.1.2(10) Concrete Foundation Walls

Maximum Wall Height	Maximum Depth of Unbalanced Backfill	Minimum Nominal Wall Thickness
8'-0"	7'-6" 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.

(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.

(SECTION 507 EXTERIOR DECKS)

R507.9.2 Lateral connection. Lateral loads shall be transferred to the ground or to a structure capable of transmitting them to the ground. Where the lateral load connection is provided in accordance with Figure R507.9.2(1), hold-down tension devices shall be installed in not less than two locations per deck, within 24 inches (610 mm) of each end of the deck. Each device shall have an allowable stress design capacity of not less than 1,500 pounds (6672 N). Where the lateral load connections are provided in accordance with Figure R507.9.2(2), the hold-down tension devices shall be installed in not less than four locations per deck, and each device shall have an allowable stress design capacity of not less than 750 pounds (3336 N). The lateral load connection required by Section R507.9.2 shall be one (1) of the following methods:

1. In accordance with Figure R507.9.2(1) with hold-down tension devices installed in not less than two (2) locations per deck, within twenty-four (24) inches of each end of the deck. Each device shall have an allowable stress design capacity of not less than 1,500 pounds (6672 N).
2. In accordance with Figure R507.9.2(2) with hold-down tension devices installed in not less than four (4) locations per deck, and each device shall have an allowable stress design capacity of not less than 750 pounds (3336 N).
3. Using knee braces extending from the floor system to the posts.
4. Using a diagonal brace across the floor system installed below the floor system and attached using a (2) 10d nails through the brace into each joist.
5. Full depth burial of the deck posts.

(CHAPTER 9 ROOF ASSEMBLIES)

(SECTION 905 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 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 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.

(CHAPTER 10 CHIMNEYS AND FIREPLACES)

(SECTION 1005 FACTORY-BUILT CHIMNEYS)

R1005.7 Factory-built chimney offsets. Where a factory-built chimney assembly incorporates offsets, no part of the chimney shall be at an angle of more than 30 degrees (0.52 rad) from vertical at any point in the assembly and the chimney assembly shall not include more than four elbows.

Exception:

When chimneys are installed per the manufacturer's installation instructions.

(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 code official. 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.

N1101.5.1 (R103.2.1) Thermal envelope depiction. The building's thermal envelope shall be represented on the construction drawings.

N1101.6 Defined terms. Add definition:

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 Sections N1101.13.1, N1101.13.2, N1101.13.3, and N1101.13.4.

N1101.14 (R401.3) Certificate. Unless otherwise presented to the homeowner and Building Official 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.

Exception:

Homes built using a master plan shall provide a code block outlining the basic energy elements of the home listed above, and a copy of this information will be provided to the buyer of the home.

(SECTION N1102 BUILDING THERMAL ENVELOPE)

Insulation Minimum R-Values and Fenestration Requirements by Component^a

Clima te Zone	Fenestr ation U- Factor ^{b, i}	Skyli ght ^b U- Facto r	Glazed Fenestr ation SHGC ^{b, e}	Ceilin g R- Value	Wood Frame Wall R- Value ^g	Mass Wall R- Value ^h	Floor R- Valu e	Basem ent ^{c, g} Wall R- Value	Slab ^d R- Valu e & Dept h	Crawl Space ^{c, g} Wall R- Value
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0	NR	0.75	0.25	30	13 or 0 + 10	3/4	13	0	0	0
1	NR	0.75	0.25	30	13 or 0 + 10	3/4	13	0	0	0
2	0.40	0.65	0.25	49	13 or 0 + 10	4/6	13	0	0	0
3	0.30	0.55	0.25	49	20 or 13 + 5ci or 0 + 15	8/13	19	5ci or 13 ^f	10ci, 2 ft	5ci or 13 ^f
4 except Marine	0.35	0.55	NR	38	13	5/10	19	NR ^j	10ci, 2ft	10ci or 13
5 and Marine 4	0.30	0.55	0.40	60	20 + 5 or 13 + 10ci or 0 + 15	13/17	30	15ci or 19 or 13 + 5ci	10ci, 4 ft	15ci or 19 or 13 + 5ci
6	0.30	0.55	NR	60	20 + 5ci or 13 + 10ci or 0 + 20	15/20	30	15ci or 19 or 13 + 5ci	10ci, 4 ft	15ci or 19 or 13 + 5ci
7 and 8	0.30	0.55	NR	60	20 + 5ci or 13 + 10ci or 0 + 20	19/21	38	15ci or 19 or 13 + 5ci	10ci, 4 ft	15ci or 19 or 13 + 5ci

For SI: 1 foot = 304.8mm.
 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 fenestrations. **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 shall not be required in Warm Humid locations as defined by Figure N1101.7 and Table N1101.7.
- 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 N1102.2.5. 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.

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.

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**

Orientation	Projection Factor
North	$\geq 0.40^a$
South	≥ 0.20
East	≥ 0.50

West	>=0.50
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- a. 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.

N1102.4.1.2 (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 m³/(s x m²)] 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 code official, 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 code official. 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 code official, 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 [0.008m³/(s x m²)] 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 (139.4m²) or smaller.

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.

N1102.4.1.90 Inspection option. The items listed in Table N1102.4.1.1 (402.4.1.1), applicable to the method of construction, are field verified.

(SECTION N1103 SYSTEMS)

N1103.1.1 (R403.1.1) Programmable thermostat. Delete in its entirety.

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.

N1103.5.2 (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) 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.

N1103.6.2 (R403.6.2) Whole-dwelling mechanical ventilation system fan efficacy. Delete in its entirety.

Table N1103.6.2 (R403.6.2) Whole-Dwelling Mechanical Ventilation System Fan Efficacy. Delete in its entirety

N1103.6.3 (R403.6.3) Testing. Delete in its entirety.

N1104.2 (R404.2) Interior lighting controls. Permanently installed lighting fixtures may be controlled with a dimmer, an occupant sensor control or another control that is installed or built into the fixture.

Exceptions: Lighting controls shall not be required for the following:

1. Bathrooms.
2. Hallways.
3. Exterior lighting fixtures.
4. Lighting designed for safety or security.

N1104.3 (R404.3) Exterior lighting controls. Delete in its entirety

(CHAPTER 13: GENERAL MECHANICAL SYSTEM REQUIREMENTS)

M1307.2 Anchorage of appliances. Appliances designed to be fixed in position shall be fastened or anchored in an approved manner. In Seismic Design Categories D0, D1 and D2, water heaters and thermal storage units shall be anchored or strapped to resist horizontal displacement caused by earthquake motion in accordance with one of the following:

1. Anchorage and strapping shall be designed to resist a horizontal force equal to one-third of the operating weight of the water heater storage tank, acting in any horizontal direction. Strapping shall be at points within the upper one-third and lower one-third of the appliance's vertical dimensions. At the lower point, the strapping shall maintain a minimum distance of 4 inches (102 mm) above the controls.
2. The anchorage strapping shall be in accordance with the appliance manufacturer's recommendations.

(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 and shall be mechanically fastened in concealed spaces. Ducts shall not be joined with screws or similar 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 RANGE HOODS)

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 (0.19 m3/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)

Table M1601.1.1

Duct Construction Minimum Sheet Metal Thickness for Single Dwelling Units^a

Round Duct Diameter (inches)	Static Pressure			
	½ inch water gage		1 inch water gage	
	Thickness (inches)		Thickness (inches)	
	Galvanized	Aluminum	Galvanized	Aluminum
≤ 12	0.013	0.018	0.013	0.018
12 to 14	0.013	0.018	0.016	0.023
15 to 17	0.016	0.023	0.019	0.027
18	0.016	0.023	0.024	0.034
19 to 20	0.019	0.027	0.024	0.034
Rectangular Duct Dimension (largest dimension)	Static Pressure			
	½ inch water gage		1 inch water gage	
	Thickness (inches)		Thickness (inches)	
	Galvanized	Aluminum	Galvanized	Aluminum
≤ 8	0.013	0.018	0.013	0.018
9 to 10	0.013	0.018	0.016	0.023
11 to 12	0.016	0.023	0.019	0.027
13 to 16	0.016	0.027	0.019	0.027
17 to 18	0.019	0.027	0.024	0.034
19 to 20	0.019	0.034	0.024	0.034

For SI: 1 inch = 25.4 mm, 1 inch water gage = 249 Pa.

- a. Ductwork that exceeds 20 inches by dimension or exceeds a pressure of 1 inch water gage shall be constructed in accordance with SMACNA *HVAC Duct Construction Standards - Metal and Flexible*.

M1601.4.1 Joints, seams and connections. Longitudinal and transverse joints, seams and connections in metallic and nonmetallic ducts in concealed spaces shall be constructed as specified in SMACNA *HVAC Duct Construction Standards—Metal and Flexible* and NAIMA *Fibrous Glass Duct Construction Standards*. Joints, longitudinal and transverse seams, and connections in ductwork shall be securely fastened and sealed with welds, gaskets, mastics (adhesives), mastic-plus-embedded-fabric systems, liquid sealants or tapes. Tapes and mastics used to seal fibrous glass ductwork shall be *listed* and *labeled* in accordance with UL 181A and shall be marked “181A-P” for pressure-sensitive tape, “181 A-M” for mastic or “181 AH” for heat-sensitive tape.

Tapes and mastics used to seal metallic and flexible air ducts and flexible air connectors shall comply with UL 181B and shall be marked “181 B-FX” for pressure-sensitive tape or “181 BM” for mastic. Duct connections to flanges of air distribution system *equipment* shall be sealed and 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 metallic ducts shall have a contact lap of not less than 1 inch (25 mm) and shall be mechanically fastened by means of not less than three sheet-metal screws or rivets equally spaced around the joint.

Closure systems used to seal all ductwork shall be installed in accordance with the manufacturers’ 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. For ducts having a static pressure classification of less than 2 inches of water column (500 Pa), additional closure systems shall not be required for continuously welded joints and seams and locking-type joints and seams. This exception shall not apply to snap-lock and button-lock type joints and seams that are located outside of *conditioned spaces*.

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 less than 70 square feet, 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. 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.
4. 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.
5. Return air from one *dwelling unit* shall not be discharged into another *dwelling unit*.

(CHAPTER 24 FUEL GAS)**(SECTION G2442 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.

5. 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:
 - 2.1. 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.
 - 2.2. 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.
 - 2.3. 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.
6. 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 70 square feet or greater in size is provided with a supply register, taking return air from the closet shall not be prohibited.
7. 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 28 WATER HEATERS)

(SECTION P2801 GENERAL)

P2801.8 Water heater seismic bracing. In Seismic Design Categories D0, D1 and D2, water heaters shall be anchored or strapped in the upper one-third and in the lower one-third of the appliance to resist a horizontal force equal to one-third of the operating weight of the water heater, acting in any horizontal direction, or in accordance with the appliance manufacturer's recommendations.

(CHAPTER 36 SERVICES)

(SECTION E3601 GENERAL SERVICES)

E3601.8 Emergency disconnects. Delete in its entirety.

E3606.5 Surge protection. Delete in its entirety.

(CHAPTER 39 POWER AND LIGHTING DISTRIBUTION)

(SECTION E3601 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.

E3902.5 Basement receptacles. 125-volt through 250-volt receptacles installed in basements 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)(5)]

Exceptions:

1. A receptacle supplying only a permanently installed fire alarm or burglar alarm system. A receptacle installed in accordance with this exception shall not be considered as meeting the requirements of Section E3901.9. Receptacles installed in accordance with this exception shall not be considered as meeting the requirement of Section E3901.9. [210.8(A)(5)]
2. Where a simplex receptacle is installed to serve an installed sump pump.

E3902.17 Arc-fault circuit-interrupter protection. Branch circuits that supply 120-volt, single phase, 15- and 20-ampere outlets installed in kitchens, excluding countertop receptacles, family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, and similar rooms or areas shall be protected by any of following:

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 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 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 first 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.

(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 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.

Exception:

In addition to these provisions, new and replacement manufactured homes to be located in flood hazard areas as established in Table R301.2(1) of the International Residential Code shall meet the applicable requirements of Section R322 of the International Residential Code.

SECTION 10:

Sections 500.360 and 500.370 of Article XI of Chapter 500 of Title V of the Code of Ordinances of the City of O'Fallon, Missouri, are hereby repealed, and two new Sections initially to be designated as 500.360 and 500.370, are hereby enacted in lieu thereof to read as follows:

**TITLE V. BUILDING AND CONSTRUCTION
CHAPTER 500: BUILDING REGULATIONS
ARTICLE XI: INTERNATIONAL FUEL GAS CODE**

SECTION 500.360: ADOPTION OF FUEL GAS CODE

That certain document, a copy which is on file in the office of the City Clerk of the City of O'Fallon, Missouri being marked and designated as the International Fuel Gas Code, 2021 edition, as published by the International Code Council, be and is hereby adopted as the International Fuel Gas Code of the City of O'Fallon, in the State of Missouri, for regulating and governing fuel gas systems and gas-fired appliances as herein provided; providing for the issuance of permits and collection of fees therefore; and each and all of the regulations, provisions, conditions and terms of said Fuel Gas Code on file in the office of the City Clerk of the City of O'Fallon, Missouri, are hereby referred to, adopted, and made a part hereof, as if fully set out in this article, with the additions, insertions, deletions and changes, if any, prescribed in Section 500.370 of this article.

SECTION 500.370: ADDITIONS, INSERTIONS AND CHANGES

The following numbered subsections of the International Fuel Gas Code, 2021 Edition, as published by the International Code Council, Inc., are hereby amended by additions, insertions, deletions and changes so that such section and subsections read as follows:

(CHAPTER 1 SCOPE AND ADMINISTRATION)

(SECTION 101 GENERAL)

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

(SECTION 103 Creation of agency)

103. 1 Creation of agency. The Building and Code Enforcement department is hereby created and the official in charge thereof shall be known as the code official. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

(SECTION 109 Fees)

109.2 Schedule of Permit Fees. Fees related to administration of this Code shall be as set forth elsewhere in this Chapter of the Municipal Code.

109.6 Fee refunds. Delete this section in its entirety.

(SECTION 112 INSPECTIONS AND TESTING)

112.90 Workmanship. Repairs, maintenance work, alterations or installations which are caused directly or indirectly by the enforcement of this Code shall be executed and installed in a workmanlike manner in compliance with this Code, in accordance with industry standards, and in accordance with the manufacturer's installation instructions.

(SECTION 113 MEANS OF APPEAL)

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 O'Fallon, Missouri.

(SECTION 114 (IFGC)BOARD OF APPEALS)

114.1 Membership of board. Delete in its entirety.

(SECTION 115 Violation penalties)

115.4 Violation penalties. Any person, firm, or corporation who violates any provisions of this Ordinance, or fails to comply with any of the requirements thereof, or erects, constructs, alters or repair a structure in violation of an approved plan or directive of the Building Official, or of a permit or certificate issued under the provisions of this Ordinance or previous ordinance, or who shall continue any work in our about a structure after having been served a stop work order, except such work as that person is directed to perform to remove a violation or unsafe conditions, or any owner or tenant of a building or premises in which such violation shall exist, shall upon conviction thereof be punishable by a fine of not more than \$500.00 dollars or by imprisonment not exceeding 90 days, or by both such fine and imprisonment. Each day that a violation continues shall be deemed a separate offense.

SECTION 11:

Sections 500.500 and 500.510 of Article XIV of Chapter 500 of Title V of the Code of Ordinances of the City of O'Fallon, Missouri, are hereby repealed, and two new Sections initially to be designated as 500.500 and 500.510, are hereby enacted in lieu thereof to read as follows:

**TITLE: BUILDING AND CONSTRUCTION
CHAPTER 500: BUILDING REGULATIONS
ARTICLE XIV: INTERNATIONAL EXISTING BUILDING CODE**

SECTION 500.500: ADOPTION OF EXISTING BUILDING CODE

That certain document, a copy which is on file in the office of the City Clerk of the City of O'Fallon, Missouri being marked and designated as the International Existing Building Code, 2021 edition, as published by the International Code Council, be and is hereby adopted as the International Existing Building Code of the City of O'Fallon, in the State of Missouri, for regulating and governing existing buildings as herein provided; providing for the issuance of permits and collection of fees therefore; and each and all of the regulations, provisions, conditions and terms of said Existing Building Code on file in the office of the City Clerk of the City of O'Fallon, Missouri, are hereby referred to, adopted, and made a part hereof, as if fully set out in this article, with the additions, insertions, deletions and changes, if any, prescribed in Section 500.510 of this article.

SECTION 500.510: ADDITIONS, INSERTIONS AND CHANGES

The following numbered subsections of the International Existing Building Code, 2021 Edition, as published by the International Code Council, Inc., are hereby amended by additions, insertions, deletions and changes so that such section and subsections read as follows:

(CHAPTER 1 SCOPE AND ADMINISTRATION)

(SECTION 101 GENERAL)

Title. These regulations shall be known as the Existing Building Code of the City of O'Fallon, Missouri, hereinafter referred to as "this code."

(SECTION 103 CODE COMPLIANCE AGENCY)

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

(SECTION 105 PERMITS)

105.1 Required. Required permits shall comply with Section 105.1 of the Building Code of O'Fallon, Missouri.

105.2 Work exempt from permits. Required permits shall comply with Section 105.1 of the Building Code of O'Fallon, Missouri.

(SECTION 106 CONSTRUCTION DOCUMENTS)

106.2.90 Professionally prepared plans. All plans and specifications shall be prepared, signed and sealed by an architect or engineer licensed and registered in the State of Missouri to render this service.

Exceptions:

The following exceptions are at the discretion of the Building Official:

Miscellaneous residential structures such as room additions, carports, garages, sheds, etc.

106.2.91 Elevations certified. Any building addition in the flood plain shall provide an elevation certificate by a Registered Engineer or Land Surveyor, licensed in the State of Missouri, before final approval of foundation.

(SECTION 108 FEES)

108.2 Schedule of permit fees. Fees related to administration of this Code shall be as set forth elsewhere in this Chapter of the Municipal Code.

(SECTION 109 INSPECTIONS)

109.90 Workmanship. Repairs, maintenance work, alterations or installations which are caused directly or indirectly by the enforcement of this Code shall be executed and installed in a workmanlike manner in compliance with this Code, in accordance with industry standards, and in accordance with the manufacturer's installation instructions.

(SECTION 112 MEANS OF APPEAL)

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 O'Fallon, Missouri.

(SECTION 113 VIOLATIONS)

113.4 Violation penalties. Any person, firm or corporation who violates any provisions of this Ordinance, or fails to comply with any of the requirements thereof, or erects, constructs, alters or repair a structure in violation of an approved plan or directive of the Building Official, or of a permit or certificate issued under the provisions of this Ordinance or previous ordinance, or who shall continue any work in or about a structure after having been served a stop work order, except such work as that person is directed to perform to remove a violation or unsafe conditions, or any owner or tenant of a building or premises in which such violation shall exist, shall upon conviction thereof be punishable by a fine of not more than \$500.00 dollars or by imprisonment not exceeding 90 days, or by both such fine and imprisonment. Each day that a violation continues shall be deemed a separate offense.

SECTION 12:

Sections 500.550 and 500.560 of Article XV of Chapter 500 of Title V of the code of Ordinances of the City of O'Fallon, Missouri, are hereby repealed, and two new Sections initially to be designated as 500.550 and 500.560, are hereby enacted in lieu thereof to read as follows:

**TITLE V. BUILDING AND CONSTRUCTION
CHAPTER 500: BUILDING REGULATIONS
ARTICLE XV: INTERNATIONAL SWIMMING POOL AND SPA CODE**

SECTION 500.550: ADOPTION OF SWIMMING POOL AND SPA CODE

That certain document, a copy which is on file in the office of the City Clerk of the City of O'Fallon, Missouri being marked and designated as the International Swimming Pool and Spa Code, 2021 edition, as published by the International Code Council, be and is hereby adopted as the International Swimming Pool and Spa Code of the City of O'Fallon, in the State of Missouri, for regulating and governing new and existing aquatic vessels and their associated systems as herein provided; providing for the issuance of permits and collection of fees therefore; and each and all of the regulations, provisions, conditions and terms of said Swimming Pool and Spa Code on file in the office of the City Clerk of the City of O'Fallon, Missouri, are hereby referred to, adopted, and made a part hereof, as if fully set out in this article, with the additions, insertions, deletions and changes, if any, prescribed in Section 500.560 of this article.

SECTION 500. 560: ADDITIONS, INSERTIONS AND CHANGES

The following numbered subsections of the International Building Code, 2021 Edition, as published by the International Code Council, Inc., are hereby amended by additions, insertions, deletions and changes so that such section and subsections read as follows:

(CHAPTER 1 SCOPE AND ADMINISTRATION)

(SECTION 101 GENERAL)

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

(SECTION 103 CODE COMPLIANCE AGENCY)

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

(SECTION 106 CONSTRUCTION DOCUMENTS)

[A]106.1 Construction documents. Construction documents, engineering calculations, diagrams, and other such data shall be submitted in two or more sets or electronically with each application for a permit. The *code official* shall require construction documents, computations and specifications to be prepared and designed by a registered design professional where required by state law. 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.

(SECTION 108 FEES)

[A]108.6 Refunds. Delete this section in its entirety.

(SECTION 110 INSPECTIONS)

110.90 Workmanship. Repairs, maintenance work, alterations or installations which are caused directly or indirectly by the enforcement of this Code shall be executed and installed in a workmanlike manner in compliance with this Code, in accordance with industry standards, and in accordance with the manufacturer's installation instructions.

(SECTION 111 MEANS OF APPEAL)

[A]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 O'Fallon, Missouri.

[A]111.2 Limitations on authority. Delete in its entirety.

[A]111.3 Qualifications. Delete in its entirety.

[A]111.4 Administration. Delete in its entirety.

(SECTION 112 BOARD OF APPEALS)

[A]112.1 Membership of board. Delete in its entirety.

(SECTION 113 VIOLATIONS)

[A]113.4 Violation penalties. Any person, firm or corporation who violates any provisions of this code, or shall fail to comply with any of the requirements thereof, or who shall erects, install, alter or repair a pool or spa in violation of an approved plan or directive of the Building Official, or of a permit or certificate issued under the provisions of this Ordinance or previous ordinance, or who shall continue any work in our about a structure after having been served a stop work order, except such work as that person is directed to perform to remove a violation or unsafe conditions, or any owner or tenant of a building or premises in which such violation shall exist, shall upon conviction thereof be punishable by a fine of not more than \$500.00 dollars or by imprisonment not exceeding 90 days, or by both such fine and imprisonment. Each day that a violation continues shall be deemed a separate offense.

(CHAPTER 3 GENERAL COMPLIANCE)

(SECTION 305 BARRIER REQUIREMENTS)

305.1 General. The provisions of this section shall apply to the design of barriers for restricting entry into areas having pools and spas. Where spas or hot tubs are equipped with a lockable *safety cover* complying with ASTM F1346 the areas where those spas or hot tubs are located shall not be required to comply with Sections 305.2 through 305.7.

305.2.4 Mesh fence as a barrier. Delete in its entirety.

305.2.4.1 Setback for mesh fences. Delete in its entirety.

305.2.5 Closely spaced horizontal members. Where the barrier is composed of horizontal and vertical members, and the distance between the tops of the horizontal members is less than 45 inches (1143 mm), the horizontal members shall be located on the pool or spa side of the fence. Spacing between vertical members shall not exceed 1 3/4 inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1 3/4 inches (44 mm) in width.

Exception:

Any fence that is 54 inches in height or greater.

SECTION 13: If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this ordinance. The City of O'Fallon, Missouri hereby declares that it would have passed this ordinance, and each section, subsection, clause or phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses and phrases be declared unconstitutional.

SECTION 14: Nothing in this ordinance or the codes hereby adopted shall be construed to affect any suit or proceeding impending in any court, or any rights acquired, or liability incurred, or any cause or causes of action acquired or existing, under any act or ordinance hereby repealed; nor shall any just or legal right or remedy of any character be lost, impaired or affected by this ordinance.

SECTION 15: This ordinance and the rules, regulations, provisions, requirements, orders and matters established and adopted hereby shall take effect and be in full force and effect 90 days from and after the date of its final passage and adoption.

First Reading: August 8, 2024

Second Reading: September 12, 2024

PASSED BY THE CITY COUNCIL FOR THE CITY OF O'FALLON, MISSOURI, THIS 12TH DAY OF SEPTEMBER, 2024.



Bill Hennessy

Presiding Officer

Attest:

Bess Bacher

Bess Bacher, City Clerk

APPROVED BY THE MAYOR FOR THE CITY OF O'FALLON, MISSOURI, THIS 12TH DAY OF SEPTEMBER, 2024.



Bill Hennessy

Bill Hennessy, Mayor

Attest:

Bess Bacher

Bess Bacher, City Clerk

Approved as to Form:

Kevin M. O'Keefe

Kevin M. O'Keefe, City Attorney