

CITY OF STRAFFORD

BILL NO. 23-38

ORDINANCE 996

AN ORDINANCE ADOPTING THE 2018 INTERNATIONAL RESIDENTIAL CODE
AND AMENDING THE CITY OF STRAFFORD, MISSOURI MUNICIPAL CODE,
TITLE V BUILDING AND CONSTRUCTION BY REPEALING ARTICLE IV,
RESIDENTIAL CODE, SECTIONS 500.160 AND 500.170 IN THEIR ENTIRETY, AND
ENACTING IN LIEU THEREOF A NEW ARTICLE IV,
RESIDENTIAL CODE, SECTION 500.160

WHEREAS the City of Strafford wishes to adopt the 2018 Edition of the International Residential Building Code. Now therefore, be ordained by the Board of Aldermen of the City of Strafford, Missouri, as follows:

AMENDING the City of Strafford, Missouri Municipal Code, Title V Building and Construction by repealing Article IV Residential Code, Sections 500.160 and 500.170 in their entirety, and enacting in lieu thereof a new Article IV, Residential Code, Section 500.160

Adoption of 2018 International Residential Code. The Board of Aldermen hereby adopts the 2018 International Residential Code, as published by the International Code Council, and all referenced standards therein as if spelled out in this Ordinance, except such portions thereof as are hereinafter deleted, modified, or amended. This code shall be designated as Section 500.160 Residential Code of Title V Building and Construction known as part of the Strafford Municipal Code. One (1) copy of said code is on file in the office of the City Clerk, City Hall 126 South Washington Avenue, Strafford, Missouri. The 2018 International Residential Code, as adopted, is hereby amended, and changed as follows.

(Note: Language to be added is underlined and language being removed is ~~stricken~~.)

R101.1 Title: Insert: City of Strafford, Missouri

Section R105.2 Work exempt from permit:

~~One-story detached accessory structures, provided that the floor area does not exceed two hundred (200) square feet.~~

~~Fences not over seven (7) feet high.~~

R106.1 Submittal documents: Amend as follows:

The following documents will be required for a new dwelling covered by this code.

1. Site plan drawn to scale showing the building footprint, driveways and all accessory buildings, boundary dimensions, setback dimensions, easements, and utility locations.

The site plan shall also include the legal description and site address.

2. Dimensioned floor plan drawn to scale with door swings, cabinets, and plumbing fixtures.
3. Front and side elevation drawn to scale.
4. Foundation plan drawn to scale with the following.
 - a. Reinforcement of the footing, stemwall, pads and piers.
 - b. Pad and pier locations.
 - c. Crawl space access.
 - d. Floor joist and girder size
5. Dashed in location of all first-floor walls and island locations to verify load bearing wall and island locations and any necessary additional structural framing to carry the loads.

R108.2 Schedule of permit fees: Insert: Strafford Municipal Code Section 500.480

Table R301.2(1) Climatic and geographic design criteria as follows:

Ground snow: 20 PSF

Wind speed: 115

Topographic effects: No

Special wind region: No

Windborne region: No

Seismic: design category: B

Weather: Severe

Frost depth: 24 inches

Termite: Moderate to heavy

Winter design temp: 9 degrees F

Ice barrier underlayment requirement: Yes

Flood Hazards; Maps as adopted by City of Strafford, Missouri; MAY 7, 2012

Air freeze index: 659

R302.5.2 Duct penetration: Ducts in the garage and ducts penetrating the wall or ceilings separating the dwelling from the garage shall be constructed of a minimum No. 26 gage (0.48 mm) sheet steel or other approved material and shall not have openings into the garage or a room identified as a "John Deere" room.

R303.4 Mechanical ventilation: Repeal this section in its entirety.

R313 Automatic Fire Sprinkler Systems: Deleting Section R313 Automatic Fire Sprinkler Systems in its entirety and inserting in lieu thereof the following language: A builder of five (5) or more connected units shall comply with the design and installation requirements of the 2018 International Residential Code Section P2904. The builder of four (4) or less connected units shall comply with fire suppressant separation as provided in Section R317 of the 2006 International Residential Code or Section P2904 of the 2018 International Residential Code at the builder or purchaser's cost and option.

R319.2 Address during construction: The assigned address shall be posted on site as soon as work commences. It must be clearly legible and visible from the street and must clearly indicate the designated lot and must remain in place until the permanent address numbers are placed on the structure.

R401.3 Drainage: Amend as follows. Grades shall slope away from the foundation a minimum of one (1) inch vertical to one (10 foot horizontal to a point five (5) feet outside the foundation. Grading of the lot or property shall be done in a manner so as not to cause ponding of water, sedimentation or erosion on site or adjoining property or created flooding on the adjoining property which otherwise would not have occurred.

R401.3.1 Foundation elevation: The foundation stemwall elevation shall be a minimum of 18 inches above the street curb top of elevation.

R403.1 General: Amend as follows: The following design criteria shall be used for all residential construction. Alternate designs shall be subject to the approval of the authority having jurisdiction.

1. 2 - #4 continuous reinforcing bars, spaced not less than 6 inches, centered on the footing, shall be installed in monolithic slab-on-ground with turned-down footings, thickened slab-on-ground footings at bearing walls or braced wall lines, spread footings, and footings with concrete stem and footing combined. If the footing width exceeds 24 inches a third #4 bar shall be placed, and all three bars equally spaced across the width of the footing with concrete cover requirements satisfied.
2. #4 horizontal reinforcing bars shall be placed not more than 6 inches from the top and the bottom of the stem wall and not more than 18 inches on center between the top and bottom reinforcing bars. Horizontal reinforcing bars shall be supported at not less than 48 inches on center, tied to vertical dowels or reinforcing bars or supported by form ties.
3. Stem walls shall be tied to footings with #4 vertical steel reinforcing dowels spaced not more than 48 inches on center, extending not less than 18 inches into the stem wall; straight dowels shall be embedded not less than 5 inches into the footing, dowels with standard hooks shall be embedded not less than 3 inches into the footing.

R403.1.3.6 Isolated concrete footings: Amend as follows: In detached one- and two-family dwellings that are three stories or less in height and constructed with stud bearing walls, isolated plain concrete footings supporting columns or pedestals are permitted. Concrete columns or pedestals shall be tied to isolated concrete footings by not less than one #4 vertical steel reinforcing dowel, extending not less than 18 inches into the column or pedestal; straight dowels shall be embedded not less than 5 inches into the footing, dowels with standard hooks shall be embedded not less than 3 inches into the footing. Columns or pedestals shall be a minimum of 8 inches in diameter or 4 inches greater in width than the floor girder.

Masonry block columns shall be a minimum of 12 inches by 12 inches with like reinforcement.

R502.6.3 Shims: The use of hardwood shims in floor construction shall not be permitted. All shims shall be steel and a of minimum of 8 inches by 8 inches in size.

R802.11.1.1 Truss uplift resistance: Repeal the language in its entirety and provide new language as follows: All truss/top plate connections shall be mechanically connected with an approved hurricane strap or connector.

802.11.1.2 Rafter uplift resistance. Repeal the language in its entirety and provide new language as follows: All rafter/top plate connections shall be mechanically connected with an approved hurricane strap or connector.

Chapter 11 Energy Efficiency: Repeal the language and all related references to this chapter in the code and provide new language as follows.

Section N1101 **Certificate.** A permanent certificate shall be posted completed by the building or registered design professional. The certificate shall list the predominant R-values of insulation installed in or on the ceiling/roof, walls, foundation (slab, basement wall, crawlspace wall and /or floor) and ducts outside conditioned spaces; U-factors for fenestration; and solar heat gain coefficient (SHGC) of fenestration. Where there is more than one value for each component, the certificate shall list the value covering the largest area. The certificate shall list the type and efficiency of heating, cooling and service water heating equipment.

Section N1102 **Ducts.** Supply and return air ducts in attics shall be insulated to a minimum of R-8, and in other areas a minimum of R-6.

Section N1103 **Minimum insulation and fenestration requirements by component.** Unfinished areas and areas without heating or cooling shall be exempt from the requirements.

Fenestration U Factor = 0.35 (skylights are excluded)

Skylight U Factor = 0.55

Glazed Fenestration SHGC = 0.40 (applies to all glazing)

Ceiling R Value = R-38

Wood Frame wall R value = R-13

Floors = N/A

Floor cantilevers = R-19

Basement wall when finished = R-13

Slab = N/A

Crawl Space = R-10

M1411.3 Condensate disposal: Amend as follows. Condensate shall not discharge into a building drain or sewer line, street, alley, or other area where it would cause a nuisance.

M1501.1 Outdoor discharge Exception 2 Mechanical exhaust from bathroom exhaust fans may be permitted to exhaust through the soffit provided that the duct shall terminate at the soffit pane with an approved mechanical louver or vent and the adjoining soffit space, for a distance of 4 feet on either side of the penetration, shall be solid non-vented material.

G2412.1 Scope: Amend as follows. This section shall govern the design, installation, modification, and maintenance of piping systems. The applicability of this code to piping extends from the point of delivery to the connections with the appliances and includes the design, materials, components, fabrication, assembly, installation, testing, inspection, operation, and maintenance of such piping system. The utility company gas meter location shall be in accordance with the requirements of the utility company.

G2414.5.3 Copper or copper-alloy tubing: Repeal this section in its entirety.

G2417.4.1 Test pressure: Delete in its entirety and provide new language as follows. The test pressure of the piping system for 2-pound gas pressure shall be 20 psi.

G2417.4.2 Test duration: Amend as follows. The test duration shall be not less than 40 15 minutes.

P2603.5.1 Sewer Depth: Insert: (24), (24)

P2603.6 Pipe Tracing: All water service piping and building sewer piping shall be installed with a tracer wire attached to the pipe from the point of connection to the water meter or sewer lateral to the point of entrance of the building.

P2905 Heated Water Distribution Systems: Delete this section in its entirety.

P3303.1.5 Sump Pump Requirement Discharge: Add the new section as follows: A crawl space sump pump shall be installed unless an exception is granted by the code official, The sump pump shall not discharge into a building drain or sewer line.

E3902.2 Garage and accessory building receptacles: 125-volt, single-phase, 15- or 20- ampere receptacles installed in garages and grade-level portions of unfinished accessory buildings used for storage or work areas shall have ground-fault circuit-interrupter protection for personnel. [210.8(A)(2)]

Exception: A single receptacle installed solely for electrical supply of a garage door opener.

E3902.16 Arc-fault circuit-interrupter protection: Branch circuits that supply 120-volt, single-phase, 15- and 20- ampere outlets installed in ~~kitchens, family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways laundry areas and similar rooms or areas~~ shall be protected by any of the following: [210.12(A)]

E4002.14 Tamper-resistant receptacles: In bedrooms, ~~areas specified in Section E3904.1,~~ 15- and 20-ampere, 125- and 250-volt nonlocking-type receptacles shall be listed tamper-resistant receptacles. [406.12(A)]

Sec. 36-1303. – Adoption of Appendices. Only the following appendices, listed among others in the 2018 International Residential Code, are adopted.

Appendix A: Sizing and Capacities of Gas Piping

Appendix B: Sizing of Venting Systems Serving Appliances Equipped with Draft Hoods, Category-I Appliances, and Appliances Listed for use with Type B Vents

Appendix C: Exit Terminals of Mechanical Draft and Direct-Vent Venting Systems

Appendix D: Recommended Procedure for Safety Inspection of an Existing Appliance Installation

Appendix E: Manufactured Housing used as Dwellings.

Appendix G: Piping Standards for Various Applications

Appendix I: Private Sewage Disposal

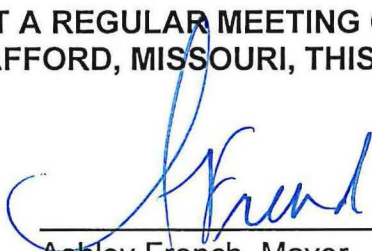
Appendix J: Existing Building and Structures

Appendix P: Sizing of Water Piping System

This ordinance shall be in full force and effect after its passage by the Board of Alderman and after its execution and approval by the Mayor.

PASSED AND APPROVED AT A REGULAR MEETING OF THE BOARD OF ALDERMEN OF THE CITY OF STRAFFORD, MISSOURI, THIS 3rd DAY OF July, 2023.





Ashley French, Mayor

ATTEST:



Sandy Strecker, City Clerk