

**COMMISSION ORDER NUMBER \_\_\_\_\_**

Effective date:

A COMMISSION ORDER ADOPTING AND GOVERNING THE DESIGN, CONSTRUCTION, ALTERATION, ENLARGEMENT, EQUIPMENT REPAIR, DEMOLITION, REMOVAL, CONVERSION, USE OR MAINTENANCE OF ALL BUILDINGS AND STRUCTURES; AND FURTHER PROVIDING FOR THE ISSUE OF SAID PERMITS, COLLECTING OF FEES, MAKING OF INSPECTIONS, AND PROVIDING PENALTIES FOR THE VIOLATION THEREOF.

BE IT ORDAINED BY THE COUNTY COMMISSION OF BOONE COUNTY, MISSOURI, AS FOLLOWS:

**SECTION 1. ADOPTION OF THE BUILDING CODE: ADDITIONS, INSERTIONS, DELETIONS AND CHANGES.**

Commission Order Number \_\_\_\_\_, known as the "Building Code of Boone County, Missouri", that a certain document, one (1) copy of which is on file in the office of Building Official of the Boone County Department of Resource Management and are being marked and designated as "The International Building Code – 2018 Edition", as published by the International Code Council, be and is hereby adopted as the Building Code of Boone County, Missouri for the control of buildings and structures as provided herein; and each and all of the regulations, provisions, penalties, conditions and terms of " The International Building Code – 2018 Edition", are hereby referred to, adopted and made part hereof, as is more fully set out in this Ordinance, with the additions, insertions, deletions and changes as hereinafter prescribed.

**SECTION 2. JURISDICTIONAL TITLE.**

0.1 Wherever (name of jurisdiction) appears in this code, it shall read "County of Boone, Missouri".

0.1.1 Wherever "Department of Building Safety" appears in this code, it shall read "Department of Resource Management of Boone County, Missouri".

0.1.2 Wherever "Chief Appointing Authority of the Jurisdiction" appears in this Code, it shall read "Boone County Commission of Boone County, Missouri".

0.2.1 Farm structure exemption: The provisions of this Code shall not be exercised so as to impose regulations or to require permits with respect to the erection, maintenance, repair, alteration or extension of farm buildings or farm structures further than seventy-five feet ( 75') from a dwelling provided that such buildings or structures are located on tracts of 20 acres or more and such buildings or structures are used exclusively for agricultural purposes. Farm dwellings shall conform to the provisions of this code as herein provided.

0.2.2 Manufactured home exemption: Manufactured homes, recreational vehicles or modular units which carry a seal as provided in Section 700.010 to 700.115 RSMo. shall be exempt from these provisions, provided that no alteration of the unit takes place once it has been placed upon a tract of land.

0.2.3 Portable building exemption: Portable buildings as defined by Section 202.0 shall be exempt from these provisions. Portable buildings must comply with all setback requirements found in the zoning

regulations. Portable buildings used to house hazardous materials (paint, gasoline, etc.) must be placed at least 10 feet from any property line and have a door that can be secured by a lock.

### SECTION 3. AMENDMENTS TO THE INTERNATIONAL BUILDING CODE - 2018.

The International Building Code - 2018 is amended by additions, deletions and changes including the changing of Articles, Sections, Sub-section titles and the addition of new sections and new sub-sections as follows:

101.2 Exception 2: Existing buildings undergoing repair, alterations, or additions and change of occupancy shall be permitted to comply with the requirements of the International Existing Building Code.

101.2.2: Appendices C, E, F, I and N are hereby adopted as published. Appendix J is hereby adopted as amended.

Appendix J section J106.1 Maximum slope; is hereby amended to read as: The slope of cut and fill surfaces shall be no steeper than is safe for the intended use, and shall be no steeper than 3 horizontal to 1 vertical (33 percent) unless the applicant furnishes a geotechnical report justifying a steeper slope.

Exceptions: Number 1 is deleted in its entirety and exception number 2 will now be listed as exception number 1.

Appendix J section J107.6 Maximum slope; is hereby amended to read as: The slope of fill surfaces shall be no steeper than is safe for the intended use. Fill slopes steeper than 3 horizontal to 1 vertical (33 percent) shall be justified by a geotechnical report or engineering data.

101.4 Referenced codes: Add the following additional sentence to this paragraph: All references to the International Existing Building Code are deleted.

101.4.3 Plumbing. Change last sentence to: The provisions of the Columbia/Boone County Health Department, the Boone County Regional Sewer District or the Missouri Department of Natural Resources shall apply to the disposal and/or treatment of sewage originating from any building constructed according to this code.

101.4.4 Property maintenance. Delete

103 DEPARTMENT OF BUILDING SAFETY. Delete.

Add:

### SECTION 103 RESOURCE MANAGEMENT DEPARTMENT

103.1 Enforcement Agency. The Resource Management Department previously created by the Boone County Commission is the enforcement agency for this code. The Director of Resource Management shall be known as the building official. The building official is hereby authorized and directed to administer and enforce all provisions of this code.

103.2 Appointment. The Director of Resource Management shall be appointed by the Boone County Commission.

103.3 Deputies. In accordance with the prescribed procedures of this jurisdiction and with the concurrence of the Boone County Commission, the Director of Resource Management shall have the authority to appoint a deputy building official, any related technical officers, inspectors, plan examiners and other employees. Such employees shall have the powers as delegated by the building official.

104.6 Right of entry: The code official shall have the authority to enter at any reasonable time any structure or premises for which a permit has been issued but has not received a certificate of occupancy in accordance with Section 110 and 111. Permit holders are required to provide means of access to all parts of structures subject to inspection, including the provision of ladders where required.

For all other structures or premises, when the code official has reasonable cause to believe that a code violation exists, the code official is authorized to enter the structure or premises at reasonable times to inspect subject to constitutional restrictions on unreasonable searches and seizures. If entry is refused or not obtained, the code official is authorized to pursue recourse as provided by law.

104.7 Department records: An official record shall be kept of all business and activities of the department specified in the provisions of this code, and all such records shall be open to public inspection at all appropriate times and according to reasonable rules to maintain the integrity and security of such records.

104.10.1 Flood Hazard Areas. Deleted.

Add:

105.8 Compliance with other Regulatory Agency Fire and Life Safety Codes: No permit shall be issued unless the plans and specifications or other required documentation for permit issuance has been approved by other Boone County regulatory agencies having jurisdiction for compliance with applicable fire and life safety codes. These provisions shall not apply to one and two-family dwellings or residences.

Add:

105.9 Compliance with other Regulatory Agency Fire and Life Safety Codes: No final inspection or periodic inspection made at the conclusion of a building phase shall be passed or approved unless similar inspections for compliance with applicable fire and life safety codes have been made and approved or passed by other Boone County regulatory agencies having jurisdiction. These provisions shall not apply to one and two-family dwellings or residences.

107.1 Submitted documents: Construction documents, special inspection and structural observation programs, and other data shall be submitted in three or more sets with each application for a permit. The construction documents shall be prepared by a registered design professional where required by the Chapter 327 RSMo. The construction documents shall be drawn to scale with sufficient clarity and detail dimensions to show the nature and character of the work to be performed including general construction, special inspections, construction observation programs, structural, mechanical and electrical work and calculations. Each sheet of each set of plans, each set of specifications, calculations and other data shall be legally sealed by a registered design professional as required by Chapter 327 RSMo. Where special conditions exist, the building official is authorized to require additional construction documents to be prepared by a registered design professional.

Buildings or structures exempt from these requirements are:

- (a) One-family dwellings.

(b) Two-family dwellings.

(c) A commercial or industrial building or structure buildings having less than 1200 square feet of floor area which provides for the employment, assembly, housing, sleeping or feeding of less than ten (10) persons.

(d) Any one structure containing less than twenty thousand (20,000) cubic feet, except as provided in (b) and (c) above, and which is not a part or a portion of a project which contains more than one structure.

107.2.5 Site plan: There shall also be a site plan showing to scale the size and location of all new construction and all existing structures on the site; distances from lot lines; the established street grades and the proposed finished grades. It shall be drawn in accordance with an accurate boundary line survey and certifying as to the date the survey was made. In the case of demolition, the site plan shall show all construction to be demolished and the location and size of all existing structures and construction that are to remain on the site or plot.

107.2.5.1 Design Flood Elevations. Delete.

109.6 Delete in its entirety. Add: Refunds: In the case of a revocation of a permit or abandonment or discontinuance of a building project, the portion of the work actually completed shall be computed and any excess fee for the incomplete work shall be returned to the permit holder upon written request. All plan examination and permit processing fees and all penalties that have been imposed on the permit holder under the requirements of this code shall first be collected. The code official shall authorize the refunding of fees according to Boone County policies under the following additional circumstances:

1. The full amount of any fee paid hereunder which was erroneously paid or collected.
2. When no work has been done, the permit fee, less a processing fee of \$20.00 may be refunded to the original permittee.

The code official shall not authorize the refunding of any fee paid, except upon written application filed by the original permittee not later than 180 days after the fee was paid.

113.1 Delete.

Add:

113.1 Board of Appeals. In order to hear and decide appeals of orders, decisions or determinations made by the building official relative to the application and interpretation of this code, there shall be and is hereby created a board of appeals. The Board of Appeals shall consist of the Building Code Commission as appointed by the Boone County Commission in accordance with Chapter 64.180 RSMo.

113.3 Delete

113.4 Court review: Any party before the Board of Appeals who is aggrieved by a decision of the board of appeals may seek redress or relief before the court of competent jurisdiction as permitted by law.

114.4 Delete in its entirety. Insert: Violation penalties: Any person who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, construct, alter, or repair a building or 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, shall be guilty of a misdemeanor, punishable as provided by law. Each day that a violation continues shall be deemed a separate offense.

115.3 Delete in its entirety. Insert: 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 conditions, shall be guilty of a misdemeanor, punishable as provided by law.

SECTION 116 Delete in its entirety.

SECTION 202.0 Add:

Portable building - a structure constructed off-site and transported to the property by means of a truck or trailer; or one built from a pre-manufactured kit and placed on skids. Portable buildings may enclose no more than 160 sq. ft. of floor space, do not have interior finish, electrical service or plumbing fixtures. Portable buildings must comply with all setback requirements found in the zoning regulations. Portable buildings used to house hazardous materials (paint, gasoline, etc.) must be placed at least 10 feet from any property line and have a door that can be secured by a lock.

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

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

903.2.1.2 Change Item 2. The fire area has an occupant load of 200 or more; or

ADD 905.11 Locking standpipe outlet caps. The fire code official is authorized to require Knox™ locking caps on the outlets on dry standpipes where the responding fire department carries key wrenches for the removal that are compatible with locking FDC connection caps.

ADD 1030.1 *Exception 4*. Within individual dwelling and sleeping units in Groups R-2, R-3, and R-4, where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3, sleeping rooms in basements shall not be required to have emergency escape and rescue openings provided that the basement has one of the following:

1301.1.1 Criteria. Building shall be designed and constructed in accordance with the 2018 International Energy Conservation Code (IECC).

1604.1 General: Add the following to this paragraph: the following standard structural design criteria are established:

1. Roof Live Load, Minimum Unreduced = 20psf.
2. Snow Load (Ground Snow Load)  $P_g = 20$  psf.
3. Seismic Loading;
  - a. Site Class D, default site class per 1613.3.2.
  - b. Mapped Spectral response accelerations.
    - (1)  $S_s = 0.167$  or per USGS data

- (2)  $S_1 = 0.093$  or per USGS data

1801.2 Design Basis: Add the following to this paragraph: The following standard design criteria are established:

1. Foundation Frost Depth, Minimum – 30” (refer to 1809.5).
2. Presumptive net allowable foundation bearing pressure = 1500 psf (refer to 1803.1 and 1806.2). Note that section 1803.5.11 and section 1803.5.12 requires a geotechnical investigation if the structure has a seismic design category of C, D, E, or F.

1803.2 Investigations required. Add the following sentence to the end of the first paragraph: A geotechnical investigation is not required for one story buildings 2500 sf or less in risk categories 1, and 2.

1807.2.2 Design lateral and soil loads. Add the following sentence to the end of the paragraph: The geotechnical engineer must state either way if a global analysis is required.

1808.6.2 Slab-on-ground foundations: Add: Exception: Slab-on-ground systems that have performed adequately in soil conditions similar to those encountered at the building site are permitted subject to the approval of the building official.

1809.5 Frost protection Add to 1. (Frost depth is thirty (30) inches.)

#### 1807.2 Retaining Walls

1807.2.1 In addition to the other requirements as stated in this code the following provisions shall apply to retaining walls.

1807.2.2 Retaining Wall – Plan review and construction inspections process. Integral to the building foundation. The building code defines a retaining wall as a wall not laterally supported at the top that resists lateral soils load and other imposed loads. Retaining walls that are integral to the building foundation must be approved by the Resource Management Department prior to the issuance of a building permit.

1807.2.3 Retaining Wall – less than four (4) feet in height measured from the bottom of the footing to the top of the wall. Detailed plans are not required. However, site plans at a minimum should indicate top and bottom of wall elevations, existing and proposed contours, drainage features, buildings and property lines, public easements, parking facilities and streets. Furthermore, the county retains the right to require additional design information regarding tiered retaining walls if there is a concern that the upper wall may impose a surcharge condition on the lower wall. These items will be required prior to the issuance of a building permit.

1807.2.4 Retaining Wall – Greater than four (4) feet in height. Detailed plans and calculations are required to be submitted to Resource Management Department. However, only the items mentioned above must be submitted prior to the issuance of a building permit. The following additional items must be submitted prior to the beginning of wall construction:

1. A typical section showing wall and footing dimensions, backfill slopes, steel / geotextile reinforcement details, weep hole locations and subsurface drainage systems.
2. Engineering calculations for the design of the wall, noting all assumptions such as concrete

and steel reinforcement strengths, soil parameters, surcharges, bearing pressures, safety factors for bearing capacity, overturning, sliding external and internal stability and deep – seated shear failure.

3. Construction plans should specify the type of backfill to be used and any soil testing requirements if not granular. A geotechnical investigation and report is recommended but not required.

1807.2.5 Failure to submit the above information prior to the beginning of the construction may result in the issuance of a stop work order by the Resource Management Department until such time the retaining wall design is reviewed and approved.

1807.2.6 First time submittals for plan review can take up to three (3) weeks for review. Additional submittals have a turnaround time of one (1) week. The contractor should plan submittals accordingly to avoid unnecessary delays in construction.

1807.2.7 All plans, profiles, cross-sections, and calculations must be prepared and sealed by a registered professional engineer licensed in the State of Missouri. The professional engineer is responsible for all aspects of the retaining wall design. The use of standard drawings from reputable manufacturer is allowable and even encouraged, but the professional engineer who seals the drawings and computations is responsible for the retaining wall design. In the absence of sufficient geotechnical information, the engineer shall be responsible for any design assumptions. Approval of the necessary plans and calculations will not transfer or share responsibility of the retaining wall design to the County of Boone.

1807.2.8 Following construction the engineer must submit a “certificate of conformance” indicating that the backfill and foundation material used met the requirements of the original design. This certificate must be signed and sealed by registered professional engineer license in the State of Missouri and, at a minimum, indicate the wall was inspected at the following specific milestones:

1807.2.9 For Concrete Walls

1. Footings prior to the pouring with reinforcement in place.
2. Walls prior to pouring with reinforcement in place.
3. At the beginning of the backfill operation.
4. Following completion of the wall.

1807.2.10 For Modular Walls

1. Footings or bearing pads.
2. During backfill operation and for the first layer of soil reinforcement.
3. Following completion of the wall.

1807.2.11 The county retains the right to request additional special inspections for items such as: vicinity to public streets for permanent residences, excessive wall heights for potential for groundwater or surface run-off problems.

1807.2.12 Additional information. Retaining walls shall be designed to ensure stability against overturning, sliding, excessive foundation pressure and water uplift. Retaining walls shall be designed for a safety factor of 1.5 (Note: If the backfill or underlying soil is clay or clayey silt, the safety factor should be increased to 2.0) against lateral sliding and overturning and a bearing capacity of 3.0.

Retaining walls with grade difference in excess of thirty (30) inches are required to have a fence or guardrail protecting the public from injury. The fence or guardrail must be a minimum of thirty-six (36)

inches in height in residential applications and forty-two (42) inches in commercial applications. The vertical balusters and bottom rail must be situated so that a four (4) inch sphere cannot pass between any portions of the fence. Horizontal balusters will not be permitted.

1807.2.13 The property owner (or the property owner's representative) must ensure that the retaining wall is properly designed and constructed. The property owner is responsible for maintenance and repairs of all retaining walls on the property. Developers are not allowed to construct retaining walls of any size within the public right-of-way without prior review and approval of the Resource Management Department.

1807.2.14 All retaining walls must be installed, inspected and issued a certificate of conformance prior to the occupancy being issued or approved by the building official. The building official retains the right to waive this requirement under special circumstance.

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