



# City of Columbia

701 East Broadway, Columbia, Missouri 65201

Department Source: Community Development - BSD

To: City Council

From: City Manager & Staff

Council Meeting Date: April 18, 2016

Re: Adoption of the 2015 International Code Council Family of Codes, with Amendments

## Executive Summary

The Building Construction Codes Commission (BCCC) has completed its review of the 2015 International Code Council family of codes and the 2014 National Electrical Code for adoption by the City. While the majority of the code changes in this cycle consist of clarifications and reformatting, there are several major code changes including required storm shelters for educational (K through 12 schools) and critical emergency operations use groups (911 call stations, fire, rescue, ambulance, and police stations), as well as new commercial and residential energy efficiency requirements. The Environment and Energy Commission (EEC) also has provided recommendations on the energy efficiency requirements in the International Residential Code (IRC) and the International Building Code (IBC).

## Discussion

The Building Construction Codes Commission is authorized by Chapter 6 of the City Code to "review the Building and other codes periodically for updating and recommending changes." After obtaining authorization to review the 2015 codes from the City Council in March 2015, the BCCC and its committees met frequently from May 2015 to January 2016, evaluating the effect of the new codes and recommending local amendments. BCCC members, representatives of the Building and Site Development Division of the Community Development Department, the Fire Department, and the Inspections Division of Boone County Resource Management attended the meetings.

The Environment and Energy Commission (EEC), following its charge in Chapter 2 of the City Code to "Act in an advisory capacity to the council in all matters pertaining to environmental protection, which could include questions of energy efficiency and conservation, and of changing technology," has reviewed the BCCC recommendations. The EEC has provided several recommended amendments to the energy efficiency requirements for single and two family construction and commercial structures, including multiple-family and institutional residential structures. A summary of the EEC recommendations is provided at the end of this discussion and in the attachments.

Below is a list of selected major code changes and other proposed amendments. All amendments appear in bold font/strikethrough in the attached proposed ordinances.



## Significant Code Changes

1. **Storm shelters.** The most significant change of this code cycle is the new storm shelter requirement (ICC 500) in the 2015 International Building Code (IBC). Because Central Missouri is in an area where the design wind speed for tornadoes is 250 mph [See attached Figure 304.2(1)] the 2015 IBC section 423 requires storm shelters to be constructed in accordance with ICC 500 for the following use groups;

**423.3 Critical emergency operations.** 911 call stations, emergency operations centers and fire, rescue, ambulance and police stations.

Exception: Buildings meeting the requirements for shelter design in ICC 500.

**423.4 Group E occupancies.** All group E occupancies with an occ. load of 50 or more.

Exceptions:

1. Group E daycare facilities.
2. Group E occupancies accessory to places of religious worship.
3. Buildings meeting the requirements for shelter design in ICC 500.

None of the existing buildings in the City would meet the requirements for shelter design in ICC 500 if they were built today.

The 2015 IBC is not clear how building additions may trigger the requirement for a storm shelter. According to an ICC representative, the authority having jurisdiction would determine the requirement for constructing a storm shelter for an addition on a case by case basis. An administrative policy would likely need to be established to clarify the issue.

There will be many additional structural, engineering, and procedural requirements for shelters designed in compliance with ICC 500. Because of the additional expense related to these requirements, the BCCC members want to make sure all stakeholders are aware of this major code change. The BCCC proposes no amendments to these new provisions.

2. **Energy efficiency.** As in the last code cycle the BCCC reviewed new energy code requirements and considered both the benefits of the new requirements and the associated expenses. The BCCC recommends adopting the 2015 Energy Code requirements with the following amendments.

### **Commercial**

- a. The 2015 International Energy Efficiency Code **Section C408** requires **System Commissioning**. All members agreed system commissioning, adjusting, and balancing is advisable. It is the opinion of the committee that the additional required plans and documentation are both cumbersome, time consuming, and expensive. Consensus was that system balancing, performance, and control can be achieved without these additional burdens and suggest the following amendments.



## **C408.2 Mechanical systems and service hot water heating systems commissioning and completion requirements. Amend as follows;**

Prior to the final mechanical and plumbing inspections, the registered design professional or approved agency ~~shall~~ **should** provide evidence of mechanical system commissioning and completion in accordance with the provisions of this section.

## **C408.3.1 Functional testing. Amend as follows.**

Prior to passing final inspection, the registered design professional ~~shall~~ **should** provide evidence that the lighting control systems have been tested to ensure that control hardware and software are calibrated, adjusted, programmed and in proper working condition in accordance with the construction documents and manufacturer's instructions.

- b. As in the last code cycle the BCCC voted to keep the amendment to IBC 1301.1.2 for R-2, R-3, and R-4 use groups (attached). This amendment prescribes insulation values, thermal envelope sealing, and thermal transmittance values for windows.

## **Residential One and Two Family**

- a. **N1101.3 Scope.** Add the attached figure labeled 2015 Residential Energy Code Requirements and make it a prescriptive means of code compliance. The committee believes building to this diagram both meets the intent of the code and simplifies the requirements for builders and inspection staff. Consensus was that simplification would translate to more consistent compliance, energy efficiency and affordability.
- b. **N1102.2.9 Basement walls. Amend first sentence as follows;** Walls associated with ~~conditioned~~ **finished** basements shall be insulated from the top of the basement wall down...  
This is applicable only to the foundation wall portions of unfinished basements. To insulate these walls before it is determined what the use will be and where plumbing, mechanical, and electrical components will be located leads to excess cost and duplication of work. This amendment is in line with the goal of affordability.
- c. **N1102.4.1.2 Testing. Amend as follows (Amended portion in bold font);** The building or dwelling unit shall be blower door tested **as deemed necessary by the building official** and verified as having an air leakage rate...Because dwellings never fail the blower door test when constructed per the prescriptive code requirements the blower door test is unnecessary. When, through un-craftsman-like work, compliance with prescriptive code requirements is questionable, the blower door test may be



required. Because blower door testing is several hundred dollars this amendment is in line with the goal of affordability.

- d. **N1102.4.4 Rooms containing fuel burning appliances. Delete.** This section requires rooms “where open combustion air ducts provide combustion air to open combustion fuel-burning appliances” (Typically 80% efficiency gas furnaces and water heaters) to be isolated from the building thermal envelope by means of insulation and fully gasketed doors. The committee believes this requirement, in conjunction with the requirement to bring combustion air into the room, may cause unintended negative consequences such as **freezing** of water pipes or builders using less efficient electric equipment. The committee also believes isolating this room from the thermal envelope entails unnecessary expense.
- e. **Appendix U (Appendix RB in the International Energy Conservation Code) Solar Ready Provisions.** This appendix is not mandatory unless adopted by the adopting ordinance. The BCCC believes the provisions of this appendix will only add unnecessary construction documentation requirements and does not propose adoption of this appendix.

- 3. **Accessibility.** The BCCC is proposing two accessibility amendments to IBC chapter 11 as follows;

**1104.4 Multistory buildings and facilities. Amend exception 1 as follows (Amended portion in bold font);**

**Exceptions:**

- 1. An accessible route is not required **in private buildings or facilities that are less than three stories or** to stories and mezzanines that have an aggregate area of not more than 3,000 square feet and are located above and below accessible levels. This exception shall not apply to:
  - 1.1 Multiple tenant facilities of group M occupancies containing five or more tenant spaces used for sales and rental of goods and where at least one such tenant space is located on a floor level above or below the accessible levels;
  - 1.2 Stories or mezzanines containing offices of health care providers (Group B or I);
  - 1.3 Passenger transportation facilities and airports (Group A-3 or B) or;
  - 1.4 Government Buildings.

This language intends to conform with the ADA which states;

**Exceptions:**

- 1. In private buildings or facilities that are less than three stories or that have less than 3000 square feet per story, an accessible route shall not be required to connect



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stories provided that the building or facility is not a shopping center, a shopping mall, the professional office of a health care provider, a terminal, depot or other station used for specified public transportation, an airport passenger terminal, or other type of facility as determined by the Attorney General.

**1109.5.1 Minimum number (Drinking fountains). Amend as follows; ~~No fewer than two drinking fountains shall be provided. One drinking fountain shall comply with the requirements for people who use a wheelchair and one drinking fountain shall comply with the requirements for standing persons.~~**

As the code is written a minimum of two drinking fountains is always required because the maximum height for wheelchair accessibility is 34" and the minimum for standing persons is 36" the BCCC. The BCCC voted that if the plumbing code only required one drinking fountain it could meet the standard for wheelchair accessibility. The intent was to limit cost. Note: **Staff has some concerns regarding this amendment; a member of Great Plains ADA Center has stated the proposed amendment is in direct conflict with ADA requirements.**

4. **Existing structures.** Chapter 34 **Existing Structures** has been removed from the IBC. The provisions of this chapter are now contained in the International Existing Building Code (IEBC). IBC section 101.4.7 states, "The provisions of the International Existing Building Code shall apply to matters governing the repair, alteration, change of occupancy, addition, to and relocation of existing buildings." The IEBC goes into much greater detail and clarification than Chapter 34 provided without changing the intent of the provisions.
5. Also of note are;
  - A. The BCCC recommendation to adopt appendices R and S in the 2015 International Residential Code. These appendices establish requirements for "Light Straw-Clay Construction" and "Strawbale Construction".
  - B. The BCCC recommendation to add a commission member "Experienced in Energy Conservation". (IBC amendment section 113.1.2)

## **EEC Recommendations**

The Environment and Energy Commission has made a number of recommendations regarding energy efficiency that differ from the BCCC recommendations, which are summarized below and in the attachments to this report.

The EEC recommendations would make the following changes to the draft ordinance:



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1. Revise the proposed 2015 Residential Energy Code Requirements diagram to require mandatory air leakage testing, state a target air leakage rate, and require blower door and duct pressure tests; require termite barriers.
2. Revise Table 301.2(1) to rate Missouri as “moderate to heavy” termite risk rather than “very heavy” risk as recommended by the BCCC (moderate to heavy is the rating given to Missouri in the published code);
3. Amend the International Residential Code N1102.4.1.2 to require blower door (air leakage) testing (currently it is not recommended a requirement by BCCC);
4. Amend IBC 1301.1.2 to change required insulation values for use groups R-2, R-3, and R-4 (housing other than 1 or 2 family) from R38 to R49 for ceiling or roof and R15 to R20 for exterior walls; require slab insulation rated R10 and require a termite barrier in accordance with R318.3j; and change window “U” value (thermal transmittance rating) from 0.55 to 0.40.
5. Adopt Appendix U, Solar Ready Provisions, as part of the International Residential Code.

## Fiscal Impact

Short-Term Impact: None

Long-Term Impact: None

## Vision & Strategic Plan Impact

### Vision Impacts:

Primary Impact: Environment, Secondary Impact: Health, Social Services & Affordable Housing, Tertiary Impact: Not Applicable

### Strategic Plan Impacts:

Primary Impact: Not Applicable, Secondary Impact: Not Applicable, Tertiary Impact: Not Applicable

### Comprehensive Plan Impacts:

Primary Impact: Livable & Sustainable Communities, Secondary Impact: Not applicable, Tertiary Impact: Not Applicable



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## Legislative History

Date	Action
03/02/15	REP33-15 Council authorized the Building Construction Codes Commission to review the 2015 International Codes.
07/20/15	R 120-15 Council directed the City Clerk to place on file for a period of ninety days the 2015 International code Council family of codes and the 2014 National Electric Code.

## Suggested Council Action

Adopt the 2015 International Code Council family of Codes (International Residential Code, International Building Code, International Energy Conservation Code, International Existing Buildings Code, International Plumbing, Mechanical, and Fuel Gas Codes, International Fire Code) and the 2014 National Electric Code to be in full force and effect on October 1, 2016.

Introduced by \_\_\_\_\_

First Reading \_\_\_\_\_

Second Reading \_\_\_\_\_

Ordinance No. \_\_\_\_\_

Council Bill No. B 105-16

### **AN ORDINANCE**

repealing Article IV of Chapter 6 of the City Code relating to the 2012 Edition of the International Plumbing Code and enacting in lieu thereof a new Article IV adopting the 2015 Edition of the International Plumbing Code; and fixing the time when this ordinance shall become effective.

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF COLUMBIA, MISSOURI, AS FOLLOWS:

SECTION 1. Article IV of Chapter 6 of the Code of Ordinances, City of Columbia, Missouri, relating to the 2012 Edition of the International Plumbing Code is hereby repealed and in lieu thereof a new Article IV, relating to the 2015 Edition of the International Plumbing Code, is hereby enacted reading in words and figures as follows:

#### **CHAPTER 6. BUILDINGS AND BUILDING REGULATIONS**

...

#### **ARTICLE IV. PLUMBING CODE**

Sec. 6-51. Adopted.

The 2015 Edition of the International Plumbing Code, published by the International Code Council, Inc., one copy of which has been on file with the city clerk for a period of ninety (90) days prior to the adoption of this article, is hereby adopted by reference and made a part of the Code of Ordinances, City of Columbia, Missouri as fully as if set forth in its entirety. At least one (1) copy of the 2015 Edition of the International Plumbing Code shall remain on file in the office of the city clerk and shall be kept available for public use, inspection and examination.

Sec. 6-52. - Amendments.

The code adopted by this article is hereby amended by substituting the following sections in lieu of those sections with corresponding numbers in the code, or, where there is no corresponding section in the code, the following sections shall be enacted as additions to the code:



*101.1 Title.* These regulations shall be known as the Plumbing Code of Columbia, Missouri, hereinafter referred to as "this code."

*101.5 License Required.*

(a) No individual shall engage in the business of plumbing in the City of Columbia unless licensed as a master plumber under the provisions of this code.

(b) No individual, firm, partnership or corporation shall engage in the business of installing, repairing or altering plumbing unless the plumbing work performed in the course of such business is under the general supervision of a licensed master plumber, and under the direct supervision of a licensed master plumber or licensed journeyman plumber employed on such installation or alteration full time to assure proper and accurate work as prescribed by this code.

(c) No person who has obtained a master plumber's license shall allow their name to be used by another person for the purpose of obtaining permits, or for doing business or work under this license. Every person licensed shall notify the board of the address of licensee's place of business, if any, and the name under which such business is carried on, and shall give immediate notice to the board of any change in either.

(d) All work authorized by a plumbing permit shall be done under the direct supervision of a licensed master or journeyman plumber.

(e) A maximum 1:3, journeyman to apprentice plumber ratio is allowed.

*101.6 Board of plumbing examiners.* There is hereby created a board of plumbing examiners, consisting of five (5) members, one of whom shall be the director of community development or the director's designee, who shall be a non-voting, ex-officio secretary of the board; a second member, who shall be a master plumber; a third member, who shall be a journeyman plumber; and a fourth member and a fifth member, who shall be persons not engaged in, working at, employed by, or connected with plumbing, a plumbing firm, contractor, or the plumbing industry. Members appointed by the council shall be residents of the City of Columbia. Members shall be appointed by the council at the second regular meeting of the council in May, biennially in odd-numbered years, for a term of two (2) years, beginning on the first day of June and serving until their successors are appointed and qualified. The second and third members of the board shall have at least six (6) years in, or working at, the plumbing business at the time of their appointment. The first meeting of the calendar year, the board shall select one of its members to serve as chair and the code official shall designate a clerk from the department to serve as secretary to the board, who shall keep a detailed record of all proceedings on file in the building and site development division.

*101.7 Meetings of the board.* The board shall meet on call of the chair or a majority of the membership, and the call shall include the time, place and purpose of such meetings. Applicants scheduled for examination at such meetings shall be notified at least three (3)

days prior to the date of the meeting. The chair of the board is authorized to excuse any member from attendance at a board meeting; provided, that the member requested to be excused before the meeting. Any member who is absent, without being excused, from twenty-five (25) percent of the regular board meetings held in a calendar year shall automatically forfeit the office. It shall be the duty of the chair to promptly notify the council of the vacancy. The members shall serve without compensation.

*101.8 Examination and certification.* The board shall establish standards and procedures for the qualifications, examination, and licensing of master plumbers, journeyman plumbers, residential plumbers and apprentice plumbers, and shall issue an appropriate certificate of competency to each person who meets the qualifications therefore and successfully passes the standard examination for master plumber or journeyman plumber as prepared and published by Thomson Prometric, ATTN: National Construction Program, 1260 Energy Lane, St. Paul, MN 55108 or the ICC National Standardized Examinations Program, [www.iccsafe.org/contractor](http://www.iccsafe.org/contractor) (1-877-783-3926) for Contractor Trades Testing. The board shall keep an official record of all transactions.

*101.8.1 Reciprocity.* The board will honor licenses issued from other jurisdictional areas provided the applicant meets the minimum experience requirements of the City of Columbia, Missouri, and provides certification of having satisfactorily completed the examination by one of the two testing agencies noted in 101.8 applicable for the type of license requested.

*101.9 Re-examinations.* Any person, who fails to pass the examination, as prescribed by the board, may apply for re-examination after the expiration of thirty (30) days.

*101.10 Temporary permit.* The board may issue a temporary license pending the examination, providing the applicant holds a similar license from an equivalent board. Such permit shall not be valid for more than sixty (60) days.

*101.11 Application.* Any person desiring to be certified as a licensed plumber shall make written application to the board. Applicants are required to appear and interview before the board of plumbing examiners unless waived by the board, provided that applicants who live outside a seventy (70) mile radius of Columbia City Hall shall not be required to appear and interview unless requested by the board. A person desiring to be certified as a licensed plumber shall not be permitted to apply for such certification more frequently than every ninety (90) days, except upon good cause found by the board.

*101.12* Before the issuance of a certificate of competency to a contracting master plumber or the registration of a plumbing contractor, the applicant shall file a surety bond for not less than ten thousand dollars (\$10,000.00), subject to the approval of the city counselor, conditioned that the applicant will indemnify and keep harmless the City of Columbia from all liability, from any accident or damages arising from negligence or non-skillfulness in doing or protecting applicant's work, or for any unfaithful or inadequate work done in pursuance of the license, and that applicant will also restore the street, sidewalk, pavement or other public property or right-of-way, and fill all excavations to be made, so as to leave

the sidewalk, street, pavement or other public property or right-of-way in as good shape or condition as applicant found them, and indemnify and keep the city harmless from any damage suffered by the failure to do and keep and maintain them in good repair in accordance with community development department standards and specifications of the City of Columbia, Missouri, for a period of one (1) year next thereafter, and that applicant will pay all fines imposed for the violation of any rule or regulation adopted by the city and in force during the term of the license and pay all fees set forth in this ordinance.

*101.13 Expiration and revocation of certificate.* All certificates of competency issued by the board shall be valid from the date of issuance until the renewal date as listed in Section 101.15, or when revoked by the board. Business licenses required of plumbers, contractors, and contracting master plumbers shall expire annually in accordance with the provisions of Chapter 13 of the Code of Ordinances.

The board may revoke any certificate if obtained through non-disclosure, misstatement, or misrepresentation of a material fact, or if a penalty has been imposed upon a certificate holder under the provisions of this ordinance. Before a certificate can be revoked, the certificate holder shall have notice in writing enumerating the charges against the certificate holder, and be entitled to a hearing by the board, not sooner than five days from receipt of the notice. The certificate holder shall be given an opportunity to present testimony, oral or written, and shall have the right to cross-examination. All testimony shall be given under oath. The board shall have the power to administer oaths. The decision of the board shall be based upon the evidence produced at the hearing and made a part of the record thereof. Any person aggrieved by a decision of the board may appeal to the circuit court as provided in chapter 536 of the Revised Statutes of Missouri. A person whose certificate has been revoked shall not be permitted to apply for renewal within one year of the date of revocation.

*101.14 License fees.* A plumbing contractor or contracting master plumber shall pay annual business license fees to the City of Columbia in an amount to be determined under the provisions of chapter 13 of the Code of Ordinances. A master plumber, a journeyman plumber, and apprentice plumber employed by a licensed plumbing contractor shall pay no business license fees.

*101.14.1 Certificate fees.* Certificate fees are as follows;

City of Columbia Journeyman Certificate .....	\$30.00
City of Columbia Master Certificate .....	\$90.00

*101.14.2 Certificate issuance.* All applicants approved by the board for Journeyman certificate shall pay a thirty dollar (\$30.00) fee prior to the issuance of the certificate. Master certificates shall require a payment of ninety dollars (\$90.00) prior to the issuance of the certificate. Certificates issued in September, October, or November of the renewal year are not required to pay a renewal fee in December.

*101.15 Certificate renewal.* A master plumber, journeyman plumber or a maintenance journeyman plumber certificate shall be renewed every three (3) years. The renewal fee is thirty dollars (\$30.00) for a journeyman certificate, ninety dollars (\$90.00) for a master certificate. Reexamination is not a renewal requirement. Failure to renew by the January 1 date of the renewal year shall result in expiration of the certificate. An individual requesting renewal of an expired certificate must apply for a new plumbing certificate and shall pay a fee according to the following schedule:

1. Ten dollars (\$10.00) from January 2 to March 30 of the first year after expiration.
2. Fifty dollars (\$50.00) from April 1 to December 31 of the first year after expiration.
3. One hundred dollars (\$100.00) after January 2 of the second year after expiration plus an additional one hundred dollars (\$100.00) for each additional year or fraction of a year after expiration.

*101.16 Qualifications for examination.*

*Master Plumber:* Applicants for examination shall:

1. Submit completed application to the director of community development including name, address, telephone number, type of certificate requested, and other information as required.
2. Prove four thousand (4,000) hours of active employment under direct supervision of a master plumber, as a journeyman plumber or be registered with the State of Missouri as a licensed professional engineer and be actively engaged in the business of plumbing contracting. Time enrolled in an appropriate plumbing trade school or plumbing training program beyond the journeyman level may be considered by the board as partial fulfillment of this requirement.
3. List names, address and telephone number of all previous employers under which applicant has worked as an apprentice or journeyman plumber, including dates and years. Provide evidence of hours worked, employment records, time cards, etc.
4. Successfully complete examination as required by the board of plumbing examiners.

*Journeyman Plumber:* Applicants for examination shall:

1. Submit a completed application to the director of community development including name, address, telephone number, type of certificate requested, and other information as required.
2. Prove eight thousand (8,000) hours of active, on the job training only, during employment, under the supervision of a journeyman plumber, as an apprentice

plumber. Time enrolled in an appropriate plumbing trade school or plumbing apprenticeship training program may be considered by the board as partial fulfillment of this requirement.

3. List names, address and telephone number of all previous employers under which applicant has worked as an apprentice including dates and years. Provide evidence of hours worked, employment records, time cards, etc.
4. Successfully complete examination as required by the board of plumbing examiners.

*Maintenance Plumbers Certificate:* Maintenance plumbers are authorized to perform routine plumbing maintenance on fixtures and equipment only for a specified employer. Applicants for examination shall:

1. Submit a completed application to the director of community development including name, address, telephone number, type of certificate requested, and other information as required.
2. Prove six thousand (6,000) hours of active employment as an apprentice plumber. Time enrolled in an appropriate plumbing trade school or apprenticeship training program may be considered by the board as partial fulfillment of this requirement.
3. List names, address and telephone number of all previous employers under which applicant has worked as an apprentice including dates and years. Provide evidence of hours worked.
4. Successfully complete examination as required by the board of plumbing examiners.

*Residential Journeyman Plumber:* (limited license for one- and two-family detached dwelling units only). Applicants for examination shall:

1. Submit completed application to the director of community development including name, address, telephone number, type of certificate requested, and other information as required.
2. Prove six thousand (6,000) hours of active employment as an apprentice plumber. Time enrolled in an appropriate plumbing trade school or apprenticeship program may be considered by the board as partial fulfillment of this requirement.
3. List names, address and telephone number of all previous employers under which applicant has worked as an apprentice including dates and years. Provide evidence of hours worked.

4. Successfully complete examination as required by the board of plumbing examiners.

*Apprentice Plumber:* Applicants for examination shall:

1. Submit completed application to the director of community development including name, address, telephone number, employer's name, signature of a licensed master plumber, and other information as required.

*Section 103 DEPARTMENT OF COMMUNITY DEVELOPMENT - DIVISION OF BUILDING AND SITE DEVELOPMENT*

*103.1 Director.* The administration and enforcement of this code shall be the duty of the director of community development, who is designated the code official for purposes of this code. The code official is hereby authorized to take such action as may be reasonably necessary to enforce the provisions of this code. Such persons may be appointed and authorized as assistants or representatives of the director as may be necessary to carry out the provisions of this code.

*103.2 Appointment.* Delete.

*103.3 Deputies.* Delete.

*103.4 Liability.* Any officer or employee charged with the enforcement of this code, while acting on behalf of the city, shall not thereby render such individual liable personally, and is hereby relieved from all personal liability for any damage accruing to persons or property as a result of any act performed in the discharge of official duties. Any suit instituted against any officer or employee because of an act performed by that officer or employee in the lawful discharge of duties and under the provisions of this code shall be defended by the legal representative of the jurisdiction until the final termination of the proceedings. The officer or employee shall not be liable for costs in any action, suit or proceeding that is instituted pursuant to the provisions of this code; and any officer or employee acting within the scope of employment and in good faith and without malice, shall be free from liability for acts performed under any of its provisions or by reason of any act or omission in the performance of official duties in connection therewith. Nothing contained herein shall be deemed a waiver of the immunities and protection afforded to the city or officers and employees pursuant to state and federal law.

*103.5 Restriction of employees.* An employee connected with the Department of Community Development - Division of Building and Site Development shall not be engaged in or directly or indirectly connected with the furnishing of labor, materials or appliances for the construction, alteration or maintenance of a building, or the preparation of plans or of specifications therefore, unless such employee is the owner of the building; nor shall such employee engage in any work which conflicts with such employee's official duties or with the interest of the department.

*106.4 By whom application is made.* Application for a permit shall be made by a licensed master plumber, except as provided herein. Plumbing permits may be issued to the general contractor, on behalf of the master plumber, for new one- and two-family dwellings and building alteration or building additions for one- and two-family dwellings to install all or part of any plumbing system. All plumbing work must be performed by a plumber licensed by the City of Columbia, or as allowed by ordinance.

Any permit required by this code may be issued to any person to do any work regulated by this code in a single-family dwelling used exclusively for living purposes, including the usual accessory buildings and quarters in connection with such buildings, provided the person is a bona fide owner of the dwelling, will occupy the dwelling, and will personally purchase all material and perform all labor authorized by the permit. Any person obtaining a permit under this section shall not be issued another permit within two (2) years.

The applicant shall meet all qualifications established by rules promulgated with this code or by ordinance, resolution, or statute. The full names and addresses of the owner, lessee, applicant and of the responsible officers, if the owner or lessee is a corporate body, shall be stated in the application.

*Exception:* Plumbers holding a maintenance plumbers certificate who are regular employees of the firm or corporation for which the work is to be performed, may obtain a permit to do plumbing work on the premises of the firm or corporation provided the work is not associated with work requiring a building permit.

*106.6.2 Fee schedule.* For the purpose of this code, any fixture, accessory, appliance or equipment of any nature requiring a permanent or rigid connection to any sewer or water line, will be classified as a fixture and the permit will be assessed as such. The plumbing permit fees shall be as follows with a \$35.00 minimum:

\$72.90	For each tap or opening into any public sewer, or private sewer that is connected to a public sewer
\$35.00	Lateral/tap repair/replace WH
\$ 5.67	Per fixture for the first twenty-five fixtures, and for each additional fixture or opening, \$1.62
\$ 3.24	For each floor drain, garage drain, or any other fixture, appliance, or waste line connecting directly with the drainage system of the building

Any required re-inspection will be charged in accordance with the Building Code of Columbia, Missouri.

In no case shall the fee for permits be less than thirty five (\$35.00) for structures not previously plumbed or alterations of, or extensions to, existing plumbing.

*106.6.3 Fee refunds.* The code official shall authorize the refunding of fees as follows:

1. The full amount of any fee paid hereunder which was erroneously paid or collected.

2. Not more than seventy-five (75) percent of the permit fee paid when no work has been done under a permit issued in accordance with this code.
3. Delete in its entirety.

The code official shall not authorize the refunding of any fee paid, except upon written application filed by the original permittee not later than one hundred eighty (180) days after the date of fee payment.

*108.4 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 install plumbing work in violation of an approved plan or directive of the code official, or of a permit or certificate issued under the provisions of this code, shall be guilty of an ordinance violation, punishable by a fine of not more than one thousand dollars (\$1,000.00) or by imprisonment not exceeding ninety (90) days, or both such fine and imprisonment. Each day that a violation continues shall be deemed a separate offense.

*108.5 Stop work orders.* Upon notice from the code official, work on any plumbing system that is being done contrary to the provisions of this code or in a dangerous or unsafe, manner, shall immediately cease. Such notice shall be in writing and shall be given to the owner of the property, or to the owner's agent, or to the person doing the work. The notice shall state the conditions under which work is authorized to resume. Where an emergency exists, the code official shall not be required to give a written notice prior to stopping the work. Any person who shall continue any plumbing 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 liable to a fine of not less than one hundred dollars (\$100.00) or more than one thousand dollars (\$1,000.00).

*109.1 Application for appeal.* Any aggrieved person shall have the right to petition the building construction codes commission regarding a decision of the code official to refuse to grant a modification of the provisions of this code covering the manner of construction or materials to be used in the erection, alteration or repair of a plumbing system. Application for appeal shall be filed in accordance with the procedures set out in Section 113 of the International Building Code as amended and adopted by the City of Columbia, Missouri.

*109.2 through 109.7.* Delete.

*305.4.1 Sewer Depth.* Building sewers, including the portion of the building drain beyond the exterior wall, shall be a minimum of thirty (30) inches below finished grade. The building official may approve a lesser depth of the building drain portion if there are extraordinary circumstances (e.g., bedrock).

*Table 308.5 Hanger Spacing.* Footnote B shall be used for water distribution piping only.



*405.3.1.1 Water closets, urinals, lavatories, bidets.* All water closets shall be spaced at least fifteen (15) inches from the centerline of the fixture to any wall or plumbing fixture except the centerline of the water closet may be spaced twelve (12) inches if located next to the bathtub.

*410.2 Add exception:* In business, mercantile, and storage occupancies where drinking fountains are required, the following exceptions are permitted to substitute for one hundred percent (100%) of the required drinking fountains if the required number is not greater than one (1):

1. A water cooler or bottled water dispenser;
2. Individual bottles of water;
3. A break room sink, bar sink, or kitchen sink provided all sinks have an approved standard faucet per IPC 424.1.

*602.3.1 Availability.* A potable public water supply system shall be considered available to a building when any portion of the property is located within two hundred twenty-five (225) feet of the public water main.

*606.1 Location of full-open valves.* Full-open valves shall be installed in the following locations:

1. On the building water service pipe from the public water supply near the curb.
2. On the water distribution supply pipe at the entrance into the structure.
3. On the discharge side of every water meter.  
Exception: Water meters not located inside a building.
4. On the base of every water riser pipe in occupancies other than multiple-family residential occupancies which are two (2) stories or less in height and in one- and two-family residential occupancies.
5. On the top of every water down-feed pipe in occupancies other than one- and two-family residential occupancies.
6. On the entrance to every water supply pipe to a dwelling unit, except where supplying a single fixture equipped with individual stops.
7. On the water supply pipe to a gravity or pressurized water tank.
8. On the water supply pipe to every water heater.

*701.2 Sewer required.* Every building in which plumbing fixtures are installed and every premises having drainage piping shall be connected to a public sewer, where available, or where a public sewer is not available, a private sewage disposal system shall be provided

conforming to Chapter 29 of the Code of Ordinances and the Building Code of Columbia, Missouri.

*701.2.1 Public system available.* A public sewer system shall be considered available to a building when any portion of the property is located within two hundred twenty-five (225) feet of the public sewer.

*705.11.2 Solvent cementing.* Delete exceptions.

*903.1 Roof extension.* Insert twelve (12) inches (304.8 mm) for termination height above roof.

SECTION 2. The repeal of Article IV of Chapter 6 of the Code of Ordinances, City of Columbia, Missouri, relating to the 2012 Edition of the International Plumbing Code shall not affect any offense or act committed or done or any penalty or forfeiture incurred before the effective date of this ordinance.

SECTION 3. This ordinance shall be in full force and effect from and after October 1, 2016.

PASSED this \_\_\_\_\_ day of \_\_\_\_\_, 2016.

ATTEST:

\_\_\_\_\_  
City Clerk

\_\_\_\_\_  
Mayor and Presiding Officer

APPROVED AS TO FORM:

\_\_\_\_\_  
City Counselor