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Sponsored by: McClure

First Reading: January 11, 2016

Second Reading January 25, 2016

COUNCIL BILL NO. 2016- 013

GENERAL ORDINANCE NO. 6261

AN ORDINANCE

1 AMENDING Chapter 36 of the Springfield City Code, known as the Land
2 Development Code, Article XIII, Residential Code, Division 2 – Deletions,
3 Modifications, Amendments, and Additions to the Residential Building
4 Code, Section 36-1302 by amending certain subsections and enacting
5 new subsections related to the same subject.
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7

8 BE IT ORDAINED BY THE COUNCIL OF THE CITY OF SPRINGFIELD,
9 MISSOURI, as follows, that:

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11 Section 1 – Chapter 36 of the Springfield City Code, known as the Land
12 Development Code, Article XIII, Residential Code, Division 2 – Deletions, Modifications,
13 Amendments, and Additions to the Residential Building Code, Section 36-1302 is
14 hereby amended as follows:
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16 Note: Underlined language is to be added. ~~Stricken~~ language is to be removed.

17
18 Sec. 36-1302. - Deletions, modifications, amendments and additions to the residential
19 building code.
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21 The 2012 International Residential Building Code, as adopted, is hereby amended
22 and changed as follows:
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24 *****

25 (e) Amend Section R202, Definitions, by adding the following definition:
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27 *Sleeping Room-in-a-Basement.* A sleeping room-in-a-basement is any space,
28 whether finished or not, meeting the minimum room area requirements of Section
29 R304 of the 2012 International Residential Building Code that are designed for,
30 or intended for, the purpose of a bedroom.
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(i) Repeal Section R303, Light, ventilation and heating, subsection R303.4, Mechanical Ventilation, in its entirety.

(j) Amend Section R308.4.2, Glazing adjacent doors, to read as follows:

R308.4.2 Glazing adjacent to doors: Glazing in an individual fixed or operable panel adjacent to a door shall be considered to be a hazardous location where the bottom exposed edge of the glazing is less than 60 inches (1524 mm) above the floor or walking surface and it meets either of the following conditions:

1. Where the glazing is within 24 inches (610 mm) of either side of the door in the plane of the door and in a closed position.

2. Where the glazing is on a wall perpendicular to the plane of the door in a closed position and within 24 inches (610 mm) of the hinge side of an in-swinging door.

Exceptions:

1. Decorative glazing.

2. When there is an intervening wall or other permanent barrier between the door and the glazing.

3. Where access to through the door is to a closet or storage are 2 feet (914 mm) or less in depth. Glazing in this application shall comply with the section R308.4.3.

4. Glazing that is adjacent to the fixed panel of patio doors.

(k) Amend Section R310, Emergency Escape and Rescue Openings, by adding a new subsection, R310.6 Alterations or repairs to existing basements, as follows:

R310.6 Alterations or repairs to existing basements. An emergency escape and rescue opening is not required where existing basements undergo alterations or repairs.

Exception: New sleeping rooms created in an existing basement shall be provided with emergency escape and rescue openings in accordance with R310.1.

(jl) Repeal Section R315, Carbon monoxide alarms, subsection R315.3, Where required in existing dwellings, in its entirety, and provide a new subsection R315.3, as follows:

R315.3 Alterations and additions. When alterations or additions requiring a permit occur, or when one or more sleeping rooms are added or created in existing dwellings, the individual dwelling unit shall be equipped with carbon monoxide alarms as required for new dwellings.

Exceptions:

1. Work involving the exterior surfaces of dwellings, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck, are exempt from the requirements of this section.
2. Installation, alteration or repairs of plumbing or mechanical systems are exempt from the requirements of this section.

~~(k)~~ Amend Section R319, Site address, subsection R319.1, Address numbers, as follows:

R319.1 Address numbers. Approved numbers or addresses shall be provided for all new buildings in such a position as to be plainly visible and legible from the street or road fronting the property. These numbers shall contrast with their background. The assigned address number shall be clearly posted on the site as soon as work commences and shall remain in place until the building is removed from that site. Letters and numbers shall be in conformance with Chapter 26, Section 26-3, Numbering of businesses and dwellings units, of the Springfield City Code.

~~(l)~~ Amend Section R320, Accessibility, subsection R320.1, Scope, as follows:

R320.1 Scope. Where there are three or more dwelling units or sleeping rooms in a single structure, the provisions of Chapter 11, of the 2012 International Building Code for Group R-3 shall apply.

~~(m)~~ Repeal Section R403, Footings, subsection R403.1.3.1 in its entirety, and provide a new subsection R403.1.3.1, as follows:

R403.1.3.1 Footings with stemwalls. Footings shall be provided with a minimum of two No. 4 bars equally placed approximately eight inches apart horizontally and between two and four inches above the bottom of the footing. If the footing is wider than 24 inches, a third No. 4 bar shall be added and all three shall be equally spaced across the width of the footing, beginning at least two inches from each outer edge.

Stemwalls shall be provided with a minimum of two horizontal No. 4 bars, to be located approximately three inches from the exterior surface of the wall and spaced approximately 18 inches apart vertically with the top and bottom bars within six inches of the top and bottom of the stemwall. If the stemwall is taller than three feet, additional bars shall be added such that the spacing between the horizontal bars is not greater than 18 inches. Vertical No. 4 bars shall be used to adequately support the horizontal reinforcement.

(np) Amend Section R403, Footings, by adding a new subsection R403.4, as follows:

R403.5 Pad and Pier Foundations. All concrete pads and piers shall be of sufficient design to accommodate all loads according to Section R302 and to transmit the resulting loads to the soil within the limitations as determined from the character of the soil. The concrete piers shall meet the following minimum requirements:

1. The pier must be centered on and along the beam centerline and must be uniform in size over the entire height of the pier. The size of the pier shall be equal to or greater than the width of the beam being supported. The beam must be fully supported by the pier.
2. The pier shall be plumb to within 1/8 inch for every 12 inches of height.
3. All piers shall be reinforced with a minimum of two, No. 4 dowels. One additional dowel shall be added for every two inches of diameter over eight inches, or equivalent cross-sectional area.
4. At a minimum, the pad for the pier shall be of similar width and depth as that for the perimeter footing.

(eg) Amend Section R404, Foundations and retaining walls, by deleting Table R404.1(a) and all related references thereto.

(pr) Delete Section R501, General, subsection R501.3, Fire protection of floors, in its entirety.

(qs) Amend Section R507, Decks, subsection R507.1, Decks, by adding the following exception:

Exception: Section R507.1 shall not apply to decks which are less than 48 inches above the adjoining finish grade.

(t) Amend Section R802, Wood Roof Framing, Subsection R802.3 Framing details, as follows:

R802.3 Framing details. Rafters shall be framed to ridge board or to each not more than 1½-inch (38mm) offset from each other to the ridge board or directly opposite each other with a gusset plate as a tie. Ridge board shall not be less

than 1-inch (25 mm) nominal thickness and not less than the cut end of the rafter.
At valleys and hips there shall be a valley or hip rafter not less than 2-inch (51mm) nominal thickness and not less in depth than the cut end of the rafter.
Hip and valley rafters shall be supported at the ridge by a brace to a bearing partition or be designed to carry and distribute the specific load at that point.
Where the roof pitch is less than three units vertical in twelve horizontal (25-percent slope), structural members that support rafters and ceiling joists, such as ridge beams, hips and valleys, shall be designed as beams.

(fu) Amend Section R802, Wood roof framing, subsection R802.11.1, Uplift resistance, by adding the following exception:

Exception: The wind exposure category for the City of Springfield shall be wind exposure category B.

(sv) Delete Chapter 11, Energy Efficiency, in its entirety and replace it with the Chapter 11 provisions of the 2006 International Residential Building Code, and add the following exceptions:

~~*Exception:*~~ 1. The insulation requirement for floors shall not be required.

2. Replace 2006 International Residential Code, Table N1102.1 and footnotes, with 2012 International Residential Code, Table N1102.1.1 (R402.1.1) and footnotes.

3. Replace 2006 International Residential Code, Table N1102.2 and footnotes, with 2012 International Residential Code, Table N1102.1.3 (R402.1.3) and footnotes.

(tw) Amend Section M1301, General, subsection M1301.1.1, Flood-resistant installation, as follows:

M1301.1.1 Flood-resistant installation. In areas prone to flooding, mechanical appliances, equipment and systems shall be located or installed in accordance with Section R323.1.5. at or above two feet above the base flood elevation as defined in General Ordinance No. 5907. In no instance shall mechanical systems, equipment and appliances be permitted to be located below the base flood elevation plus one foot.

(x) Amend Section 1411, Heating and Cooling Equipment, by adding a new subsection, M1411.3.4 Drain line maintenance, and M1411.7 Condensate pumps, as follows:

M1411.3.4 Drain line maintenance. Condensate drain lines shall be configured to permit clearing of blockages and performance of maintenance without requiring the drain line to be cut.

M1411.7 Condensate pumps. Condensate pumps located in uninhabitable spaces, such as attics and crawl spaces, shall be connected to the appliance or equipment served such that when the pump fails, the appliance or equipment will be prevented from operating. Pumps shall be installed in accordance with the manufacturer's instructions.

(u~~y~~) Amend Section M1501, General, subsection M1501.1, Outdoor discharge, by adding the following exception:

Exception: Toilet room exhaust fans shall be permitted to exhaust through the soffit provided that:

1. The duct shall terminate at the soffit panel to an approved mechanical louver or vent, and
2. The adjoining soffit space, for a distance of four feet on either side of the exhaust duct penetration shall be of a solid non-vented material.

(z) Amend Section M1502, Clothes Dryer Exhaust, by adding a new subsection, M1502.4.4.3 Dryer exhaust duct power ventilator, and M1502.4.8 Dryer exhaust duct power ventilators, as follows:

M1502.4.4.3 Dryer exhaust duct power ventilator. The maximum length of the exhaust duct shall be determined in accordance with the manufacturer's instruction for the dryer exhaust duct power ventilator.

M1502.4.8 Dryer exhaust duct power ventilators. Domestic dryer exhaust duct power ventilators shall conform to UL 705 for use in dryer exhaust duct systems. The dryer exhaust duct power ventilator shall be installed in accordance with the manufacturer's instructions.

(v~~aa~~) Repeal Section P2902, Protection of potable water supply, subsection P2902.5.3, Lawn irrigation systems, in its entirety and provide a new subsection P2902.5.3, as follows:

P2902.5.3 Lawn irrigation systems. The potable water supply to lawn irrigation systems shall be protected against backflow in accordance with the City Utilities Backflow Prevention Requirements for Lawn Irrigation Systems, latest edition thereto.

(w~~bb~~) Amend Section P2903, Water-supply system, subsection P2903.3.1, Maximum pressure, as follows:

P2903.3.1 Maximum pressure. An approved water-pressure reducing valve conforming to ASSE 1003 with strainer shall be installed on the domestic water

branch main or riser at the connection to the water-service pipe to reduce the pressure in the building water distribution piping to 80 psi (552 kPa) static or less.

(~~ccc~~) Repeal Section P2904, Dwelling Unit Fire Sprinkler Systems, in its entirety.

(~~ydd~~) Amend Chapter 29, Water Supply and Distribution, by adding a new section P2909, as follows:

P2909 Rainwater Harvesting system for non-potable interior and exterior uses.

P2909.1 Source. Rainwater harvesting shall be from roofs only.

P2909.2 System Design. The design of the rainwater harvesting system shall be based on design criteria as established by the Department of Building Development Services. Alternate design concepts shall be reviewed on a case-by-case basis.

P2909.3 The distribution system from the tank to the fixture shall comply with this Code and meet the labeling and marking standards found in Section 707.12.12.4 of the International Green Construction Code.

P2909.4 The potable water supply serving the building shall be provided with an accessible reduced pressure backflow prevention device.

(~~ee~~) Amend Section P3005, Drainage System, by adding a new subsection, P3005.2.12 Building sewer and public sewer junction, as follows:

P3005.2.12 Building sewer and public sewer junction. Connections to a public sewer shall conform to Public Works Standard Drawing Details for Public Improvements, including Standard Drawing Details SAN-24 and SAN-25, included herewith.

(~~zff~~) Amend Section P3111, Combination waste and vent system, subsection P3111.1, type of fixtures, as follows:

P3111.1 Type of fixtures. A combination waste and vent system shall not serve fixtures other than floor drains, standpipes, sinks, lavatories and drinking fountains. A combination waste and vent system shall not receive the discharge of a food waste grinder or kitchen sink.

(~~aagg~~) Amend Section P3114, Air admittance valves, by adding a new subsection P3114.3.1, as follows:

P3114.3.1 Limited Usage. The use of air admittance valves shall be permitted only in the remodel of existing buildings and shall not be permitted in new

buildings and building additions, except for island fixtures, unless prior approval is granted by the authority having jurisdiction.

(bhh) Amend Section P3302, Subsoil drains, by adding a new subsection P3302.2, as follows:

P3302.2. All subsoil drains, sumps and pumping shall not be connected to the building drain or building sewer.

(eejj) Amend Section G2413, Pipe sizing, subsection G2413.6, Maximum design operating pressure, as follows:

G2413.6 Maximum design operating pressure. Typical design operating pressure shall be 0.25 psig. Design operating pressures from 0.5 psig through 2 psig shall only be allowed in areas where the gas supplier has sufficient main-line delivery pressure to assure adequate supply. The installer shall be responsible for verifying the availability of elevated pressure.

G2413.6.1 For design operating pressures of 2 psig or less, piping materials shall be in conformance with Section 403 of the International Fuel Gas Code 2006 as amended herein.

G2413.6.2 Design operating pressures greater than 2 psig and less than 5 psig shall only be allowed if the pipe material is welded steel pipe or Corrugated Stainless Steel Tubing.

G2413.6.3 Design operating pressures of 5 psig or greater shall only be allowed if all of the following conditions are met:

1. The connected load is 1000 CFH or greater and the facility has connected equipment that requires higher pressures for proper operation.
2. The installation is approved by the Code Official and the gas supplier.
3. The piping system is welded steel pipe.
4. Adequate pressure is available from the gas supplier.
5. All connected equipment is provided with regulators rated for the pressure provided.

G2413.6.4 Liquefied petroleum gas systems. The operating pressure for undiluted LP-Gas systems shall not exceed 20 psig (140 kPa gauge). Buildings having systems designed to operate below -5°F (-21°C) or with butane or a propane-butane mix shall be designed to either accommodate liquid LP-Gas or prevent LP-Gas vapor from condensing into a liquid.

(~~ddjj~~) Repeal Section G2414, Piping materials, subsection G2414.5.2, Copper Tubing, in its entirety.

(~~eekk~~) Amend Section G2415, Piping system installation, by adding new subsections G2415.5.1, G2415.20, and G2415.21 as follows:

G2415.5.1 Corrugated Stainless Steel Tubing (CSST) Physical damage protection. All CSST piping located within a wall cavity shall be protected by installing the CSST inside a metal sleeve made of Schedule 40 steel pipe or floppy galvanized steel conduit as provided by the CSST manufacturer.

G2415.20 Location at gas meter. All gas piping at the meter location shall terminate at a point no greater than ten feet from the corner of the structure closest to the city gas main.

G2415.21 Corrugated Stainless Steel Tubing (CSST) at the meter locations. All CSST piping shall terminate utilizing the pipe manufacturer's approved meter termination fitting securely anchored to the structure in such a manner to properly support the meter. No CSST fitting connections shall be concealed within the structure at the meter location.

(~~ffll~~) Amend Section G2416, Piping Support, by adding subsection G2416.4, as follows:

G2416.4 Corrugated Stainless Steel Tubing (CSST). The minimum bending radius for CSST shall be as follows:

Pipe size 3/8, 1/2 and 3/4 inch diameter - minimum radius 3 inches

Pipe size 1, 1 1/4 and 1 1/2 inch diameter - minimum radius 5 inches

Pipe size 2 inches and larger - minimum radius 6 inches

(~~ggmm~~) Amend Section G2417, Inspection, testing and purging, subsection G2417.4.1, Test pressure, as follows:

G2417.4.1 Test pressure and duration. The test on all gas piping designed as a 2 PSIG or less system shall be 20 PSIG with a 15-minute duration. The test on all gas piping designed above 2 PSIG shall be 20 PSIG with a 120-minute duration.

(~~hhnn~~) Repeal Section G2417, Inspection, testing and purging, subsection G2417.4.2, Test duration, in its entirety.

(~~iioo~~) Amend Section G2418, Piping Support, by adding new subsection G2418.3, as follows:

G2418.3 Corrugated Stainless Steel Tubing (CSST). All CSST greater than 16 inches in length and run horizontally shall be continuously supported and shall be attached to the continuous support member at intervals not to exceed six feet on center.

(jjpp) Amend Section G2420, Gas shutoff valves, by adding new subsection G2420.1.4, as follows:

G2420.1.4 Shutoff valve support. All shutoff valves shall be supported in such a manner as to prevent movement of the valve body when the valve is operated. Connection of the valve to a section of iron pipe either immediately upstream or downstream of the valve shall be considered an acceptable support.

(kkqq) Amend Section E3402, Building structure protection, by adding new subsection E3402.4, as follows:

E3402.4 Clearance Requirements. All buildings and structures are required to meet clearance requirements from all wires, conductors, cables and rigid live parts as stipulated in the National Electric Safety Code (NESC), latest edition, or as dictated by the utility service provider. In case of a conflict between the two agencies, the more stringent shall apply.

(#rr) Amend Section E3601, General services, by adding new subsection E3601.8, Residential Service Upgrades, as follows:

E3601.8 Residential Service Upgrades.

1. All structures used for residential purposes, requiring a service upgrade or modification, shall mandate the following electrical system improvements.

a. GFI receptacles in the kitchen(s) and bathroom(s) shall be installed if outlets are in existence at the time of the service upgrade.

b. Approved hard-wired, dual-powered, interconnected smoke detectors shall be installed and located as per the adopted building code.

c. The kitchen shall be provided with a minimum of two grounded small appliance branch circuits.

d. Carbon monoxide detectors shall be installed in accordance with R315.1 where the structure has an attached garage or has fuel fired appliances.

de. All apparent hazards shall be corrected.

2. If a fire occurs, or other similar incident that damages any part of the electrical system within a residential structure, in addition to all damaged systems being repaired, it is mandated that all apparent hazards within the structure be corrected. Hard-wired, dual-powered, interconnected smoke detectors shall be installed and located as per the adopted building codes. If the service portion of the electrical system is damaged or upgraded as a result of a fire or other incident, it shall require that all items listed in paragraph E(1) of this section shall be provided.

3. A total or partial upgrade of the electrical system may be required, if in the opinion of the Code Official, or his designee, the condition of the existing electrical system constitutes a potential threat to the safety and welfare of current or future occupants.

(mmss) Amend Section E3901, Receptacle Outlets, by adding new subsection E3901.9.1, as follows:

3901.9.1 Basement finish requirements. Where a portion of the basement is finished into one or more habitable rooms, each separate unfinished portion shall have a receptacle outlet installed in accordance with this section. When interior walls for separate rooms are framed, these areas shall be considered as finished areas and shall be provided with the required branch circuits as required by Article 210, and any required smoke detectors. All wiring shall be protected from physical damage by the wall framing or the wall shall be covered with sheetrock on at least one side.

(nntt) Amend Section E3902, Ground-fault and arc-fault circuit-interrupter protection, subsection E3902.2, Garage and accessory building receptacles, as follows:

E3902.2 Garage and accessory building receptacles. All 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.

Exception: The receptacle adjacent to and used solely for the purpose of providing power for the garage door opener does not have to be GFCI-protected.

(øøuu) Amend Section E3902, Ground-fault and arc-fault circuit-interrupter protection, subsection E3902.12, Arc-fault circuit-interrupter protection, as follows:

E3902.12 Arc-fault circuit-interrupter protection. All branch circuits that supply 120-volt, single-phase, 15- and 20-ampere outlets installed in bedrooms, shall be

protected by a combination- type arc-fault circuit interrupter installed to provide protection of the branch circuit.

(ppvv) Repeal Section E4002, Receptacles, subsection E4002.14, Tamper-resistant receptacles, in its entirety.

~~(qq) The following Appendices shall, by adoption of the 2012 International Residential Building Code, be considered as part of this Code:~~

~~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 G, Swimming Pools, Spas, and Hot Tubs~~

~~Appendix H, Patio Covers~~

~~Appendix I, Private Sewage Disposal~~

~~Appendix J, Existing Buildings and Structures~~

~~Appendix P, Sizing of Water Piping System~~

~~Appendix Q, ICC/NEC Code Cross Reference~~

Section 2 – Savings Clause. Nothing in this ordinance shall be construed to affect any suit or proceeding now pending in any court or any rights acquired or liability incurred nor any cause or causes of action accrued or existing, under any act or ordinance repealed hereby, or shall any right or remedy of any character be lost, impaired, or affected by this ordinance.

Section 3 – Severability Clause. If any section, subsection, sentence, clause, or phrase of this ordinance is for any reason held to be invalid, such decision shall not affect the validity of the remaining portions of this ordinance. The Council hereby declares that it would have adopted the ordinance and each section, subsection, sentence, clause, or phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared invalid.

Section 4 – This ordinance shall be in full force and effect from and after February 1, 2016

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538 Passed at meeting: January 25, 2016
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540 Robert L. Stephen
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542 Mayor

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544 Attest: [Signature], Assistant City Clerk
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547 Filed as Ordinance: January 25, 2016
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550 Approved as to form: Duke McDonald, Assistant City Attorney
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553 Approved for Council Action: [Signature], City Manager

EXPLANATION TO COUNCIL BILL NO. 2016- 013

FILED: 01-05-16

ORIGINATING DEPARTMENT: BUILDING DEVELOPMENT SERVICES

PURPOSE: To amend and add certain sections of Chapter 36 of the Springfield City Code, known as the Land Development Code, Article XIII, Residential Code, Division 2 – Deletions, Modifications, Amendments, and Additions to the Residential Building Code, Section 36-1302 by amending certain subsections and enacting new subsections related to the same subject.

BACKGROUND AND REMARKS: With the adoption of the 2012 International Residential Code, staff and the development community determined that it would be in the best interest of the community to change from a 3 year cycle on new code adoption to a 6 year cycle. The international codes are revised and published every 3 years. It was also agreed that the “off year publication” (2015 edition) would be reviewed for any possible amendments to the 2012 edition currently adopted by the City of Springfield. The proposed amendments are based on a review of the 2015 edition. The proposed amendments provide improved language and design provisions that will benefit citizens and the development community.

As a part of the code review Council Bill number 2014-223, resolution number 10172 dealing with window fall protection was reviewed in depth by staff and various parties from the community. It was recognized that the codes adopted since 2006 address this issue. It was determined that a better approach will be an education program supported by all parties having involvement with residential development.


The proposed amendments were placed on the City website for review by the members of the Home Builders Association, Springfield Contractors Association, Missouri Society of Professional Engineers, the local chapter of the American Institute of Architects, and the Development Issues Input Group. The City has received no objections to the proposed amendments.

Submitted by:



Building Development Services

Approved by:



City Manager