

ORDINANCE NO. 3132

"AN ORDINANCE AMENDING CHAPTER, 7, BUILDINGS, RELATING TO THE 2009 EDITION OF INTERNATIONAL CODES: ARTICLE III RESIDENTIAL CODE FOR ONE-AND TWO-FAMILY DWELLINGS; TO CREATE NEW SECTION 4.01.3 ESTABLISHING STANDARDS FOR LOT GRADING; ESTABLISHING PROCEDURES FOR DEMONSTRATING COMPLIANCE WITH SAID STANDARDS; ADOPTING BY REFERENCE; AND PROVIDING AN EFFECTIVE DATE."

(AMENDMENTS HIGHLIGHTED BY STRIKETHROUGH AND UNDERLINING)

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF STILLWATER, OKLAHOMA:

**SECTION 1:** That Chapter 7, Buildings, Article III, One-and Two-Family Dwelling Code, Section 7-33, of the Stillwater City Code is hereby amended to read as follows:

**Sec. 7-33. Deletions, modifications, amendments and insertions.**

The International Residential Code for One- and Two-Family Dwellings, 2009 Edition is hereby amended in the following aspects:

(a) *R101.1 Title. Insert:* City of Stillwater, Oklahoma

(b) *R102.7.1, Additions alterations or repairs, is hereby amended to read to wit:* Additions, alterations or repairs to any structure shall conform to that required for a new structure without requiring the existing structure to comply with all of the requirements of this code, unless the addition, alteration or repair causes the existing electrical, plumbing, mechanical or fuel gas system or the structure to become unsafe or adversely affects the performance of the building.

(c) *R103.1, Creation of enforcement agency is hereby deleted in its entirety and replaced with:* R103.1 Creation of building safety division. The building safety division of the development services department is hereby created and the official in charge thereof shall be known as the building official.

(d) *R103.2, Appointment. The following shall be inserted into the end of this paragraph:* The chief appointing authority of the jurisdiction shall be the city manager.

(e) *R103.3, Deputies is hereby repealed and replaced to read to wit:* The city manager shall appoint all employees within the building safety division and such employees shall have the powers as established by the city manager and/or as delegated by the building official.

(f) *R104.1, General is hereby repealed and replaced to read to wit:* The building official is hereby authorized to enforce the provisions of this code. The building official shall have the authority and responsibility to identify and assess local conditions and prevailing building practices, to render interpretations of this code, and establish procedures to clarify the practical application of its provisions. Such interpretations and procedures shall be consistent with the intent of this code as it pertains to local conditions.

(g) *R104.10, Modifications is hereby repealed and replaced to read to wit:* Literal compliance: Wherever there are practical difficulties involved in carrying out the

provisions of this code, the building official shall have the authority to accept alternative or equivalent methods, processes, or materials in individual cases, upon application of the owner or owner's representative, provided the building official shall first find that existing circumstances make application of the strict letter of this code impractical and acceptance of an alternative or equivalent method, process, or material is consistent with the intent and purpose of this code and does not lessen health, accessibility, life or safety, or structural standards.

(h) *R104.11, Alternative materials, design and methods of construction and equipment is hereby repealed and replaced to read, to wit:* The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code. An alternative material, design or method of construction shall be approved where the building official finds that the proposed design is satisfactory and consistent with the intent of the provisions of this code, and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this code in quality, strength, effectiveness, fire resistance, durability and safety.

(i) *R105.2, Work exempt from permit, Building: subsection 3. is hereby amended to read to wit:*

Retaining walls with not over four (4) feet (one thousand two hundred nineteen (1,219) mm) of exposed wall height measured from finish grade to the top of the wall, unless supporting a surcharge.

(j) *R105.2, Work exempt from permit, Building: subsection 10 is hereby amended to read to wit:*

Decks not exceeding 200 square feet (18.58m<sup>2</sup>) in area, that are not more than 30 inches (762 mm) above grade at any point.

(k) *R105.2, Work exempt from permit, Building: 11 is hereby added to wit:* Ordinary maintenance including but not limited to reroofing, residing, accoustic ceiling replacement, wallboard and plaster replacement and window and door replacement.

(l) *R105.2.2, Repairs is hereby amended to read to wit:* Application or notice to the building official is not required for ordinary repairs to structures, replacement of lamps or the connection of approved portable electrical equipment to approved permanently installed receptacles. Such repairs shall not include the cutting away of any wall, partition or portion thereof, requiring the removal or relocation of electrical, plumbing, mechanical or fuel gas systems, or the removal or cutting of any structural wall, beam or load bearing support, or the removal or change of any required means of egress or emergency escape and rescue opening, or rearrangement of parts of a structure affecting egress requirements or the emergency escape and rescue opening or exit path; nor shall ordinary repairs include addition to, alteration of, replacement or relocation of any, water supply, sewer, drainage, drain leader, gas, soil, waste, vent or similar piping, electric wiring or mechanical or other work affecting public health or general safety.

(m) *R105.3, Application for permit is hereby amended to read to wit:* To obtain a permit, the applicant shall first file an application in writing on a form furnished by the department of building safety for that purpose. Such application shall:

1. Identify and describe the work to be covered by the permit for which application is made.
2. Describe the land on which the proposed work is to be done by legal description, street address or similar description that will readily identify and definitely locate the proposed building or work.
3. Indicate the use and occupancy for which the proposed work is intended.
4. Be accompanied by construction documents and other information as required in section R106.1.
5. Be signed by the applicant, or the applicant's authorized agent.

(n) *R108.2, Schedule of permit fees is hereby amended to read to-wit:* Permit fees shall be established by resolution of the city ~~commission~~ council, no portion of which shall be refundable.

(o) *R112, Board of appeals is hereby amended to read to wit:* The Building Trades Board shall hear and decide appeals of orders, decisions or determinations made by the building official relative to the application and interpretation of this code. See Article VI, Chapter 7 of Stillwater Municipal Code

(p) *Table R301.2(1), Climatic and Geographic Design Criteria, insert:*

Ground snow load = Ten (10) psf

Wind speed = Ninety (90) mph (three (3) sec. gust), Exposure B

Seismic design category = B

Weathering = Moderate

Frost line depth = Eighteen (18) inches

Termite = Moderate to heavy

Decay = Slight to moderate

Winter design temp = Thirteen (13)

Ice shield underlayment required = NO

Flood hazards = FIRM #405380, revised May 16, 2007 as amended

Air freezing index = Five hundred (500)

Mean annual temperature = Sixty (60)

(q) *R303.3, Bathrooms, Exception is hereby amended to read to-wit:*

*Exception:* The glazed areas shall not be required where artificial light and a mechanical ventilation system are provided. The minimum ventilation rates shall be fifty (50) cfm for intermittent ventilation or twenty (20) cfm for continuous ventilation. Ventilation air from the space shall be exhausted directly to the outside or to a properly ventilated attic space complying with IRC Section R806. When terminated in a ventilated attic space the exhaust shall terminate not less than twelve (12) inches above insulation so as not to be covered or blocked by insulation and secured to the structure to prevent movement.

(r) *R311.7.2, Headroom is hereby amended by adding an exception to read wit:* The minimum headroom in all parts of the stairway shall not be less than six (6) feet eight (8) inches (two thousand thirty six (2,036) mm) measured vertically from the sloped plane adjoining the tread nosing or from the floor surface of the landing or platform.

*Exception:* Doorways serving only attic storage areas and not part of the required building egress or emergency escape and rescue opening.

(s) *R311.7.4 Stair treads and risers is hereby amended by adding an exception to read wit:* Stair treads and risers shall meet the requirements of this section. For the purposes of this section all dimensions and dimensioned surfaces shall be exclusive of carpets, rugs or runners.

Stair treads and risers shall meet the requirements of this section.

*Exception:*

An interior flight of stairs serving only attic storage areas and not part of the required building egress or emergency escape and rescue opening shall be permitted to have risers not exceeding eight (8) inches (two hundred three (203) mm) in height and treads not less than nine (9) inches (two hundred twenty nine (229) mm) in depth. Risers in excess of eight (8) inches (two hundred three (203) mm) will be considered as a ladder.

(t) *R311.5.4, Landings for stairways is hereby amended by adding an exception to read to wit:* There shall be a floor or landing at the top and bottom of each stairway.

*Exception:*

1. A floor or landing is not required at the top of an interior flight of stairs, provided a door does not swing over the stairs.
2. A landing is not required at the bottom of an interior flight of stairs serving only attic storage areas provided the stairway is not part of a required building egress or emergency escape and rescue opening.

(u) R313.2 One-and-two family dwellings automatic fire systems is hereby deleted in its entirety.

(v) R401.3 Drainage is deleted in its entirety and replaced with the following:

R401.3 Finished Floor Elevation. The finished floor elevation for a structure constructed on a residential lot shall be established at least one foot (1') above the lowest point where surface water drains from the lot.

R401.3.1 Finished Floor Elevation-Construction Located Within Floodplain Boundary: No construction shall commence on a structure located within the boundaries of a flood plain until an Earth Change Permit has been issued by the City. The finished floor elevation shall be established no less than one foot (1') above the base flood elevation (BFE) as indicated on the FEMA Elevation Certificate. A FEMA Elevation Certificate indicating initial floor elevations as set forth in said requirements shall be completed and submitted with the building permit application.

R401.3.2 Conveyance of Surface Water Drainage. Surface water drainage shall be diverted to a designated public stormwater conveyance or other approved point of collection.

R401.3.3 Grading Adjacent to Foundations. Lots shall be graded to drain surface water away from foundation walls. In addition:

a. Roofs, paved areas, yards, courts and courtyards shall be constructed to drain surface water away from the structure.

b. Masonry veneer construction: The finished grade shall be established no less than four inches (4'') below the finished floor elevation and shall fall no less than six inches (6'') within the first ten feet (10') away from the structure as measured from the building face.

c. All other construction: The finished grade shall be established no less than six inches (6'') below the finished floor elevation and shall fall no less than six inches (6'') within the first ten feet (10') away from the structure as measured from the building face.

d. Exception: Whenever a lot line, wall, slope or other physical barrier prohibits six inches (6'') of fall within the first ten feet (10') as measured from the building face, drains or swales shall be provided to ensure sufficient surface water drainage away from the structure.

e. A driveway shall slope continuously away from the garage entry to a minimum elevation of six inches (6'') below the finished floor elevation of the structure, or the surface water shall be discharged in accordance with subsection R401.3.3(d). Driveway slope shall not exceed fifteen percent (15%) within the right-of-way.

R401.3.4 Fencing. Fencing over a property line where surface water travels shall be elevated a minimum of two inches (2'') above the finished landscaped ground level. Fencing shall not obstruct or alter the path of any drainage easement and shall allow for unobstructed movement of surface water into such easement or drainage channel/area.

R401.3.5 Residential Lot Grading and Drainage Plan. A Residential Lot Grading and Drainage Plan (RLP) shall be submitted by the Residential Building Contractor and approved by the City before a building permit for any residential structure will be issued. The RLP drawing shall be prepared at a scale of 1"=20'. The plan shall include the following:

a. Title block in lower right hand corner with lot or parcel address;

b. Subdivision name, lot and block number, if located within a platted subdivision;

c. Name, address and telephone number of the property owner and building contractor;

d. Drawing scale and north arrow;

e. Location of statutory and any platted building setbacks;

f. Location of property boundaries including all lot dimensions;

g. Footprint(s) of all structures indicated by solid line, including distances to the property lines;

h. Relative finish floor elevation of the main level of the primary structure;

i. Location of all easements labeled by type and width;

j. Location of the existing and/or proposed public sidewalk, curb and gutter;

k. Location and width of driveway, private sidewalks, decks, porches, patios;

l. Relative and proposed elevations of:

(1) Each corner of the lot and proposed discharge points;

(2). Key locations along drainage swales;

m. Proposed drainage flow patterns indicated by flow arrows showing path that surface water will take to the site boundaries or points of discharge;

n. Key locations at and around existing obstructions, such as retaining walls, large structures, and large earth masses;

o. Whenever properties are located within the floodplain, the applicant shall complete a FEMA Elevation Certificate.

*R401.3.6 Residential Lot Grading and Drainage Plan-Existing Structures.* Whenever an addition to an existing residential structure exceeds three hundred (300) square feet in area, a Residential Lot Plan-Existing Structure (RLP-E) shall be submitted by the building contractor and approved by the City before a building permit for such addition will be issued. The requirements set forth in R401.3.1 through R401.3.4 shall apply to any addition to an existing structure unless specifically excepted. The following additional requirements shall apply:

a. The lot shall be graded locally away from and around the completed addition.

b. Drainage shall be properly transferred into the existing lot surface water drainage system.

c. Any area directly impacted by the addition shall be modified to restore existing surface water drainage.

The RLP-E drawing shall be prepared at a scale of 1"=20'. The plan shall include the following:

a. Title block in lower right hand corner with lot or parcel address;

b. Subdivision name, lot and block number, if located within a platted subdivision;

c. Name, address and telephone number of the property owner and building contractor;

d. Drawing scale and north arrow;

e. Footprint(s) of all structures indicated by solid line, including distances to property lines;

f. Location of property lines;

g. Relative finish floor elevation of the addition if it is different than that of the main level of the existing primary structure. When floor elevations are lower than that of the existing structure, then section 401.3.7 shall apply with regard to additional documentation;

h. Location of all easements, labeled by type and width.;

i. Location of the public sidewalk, curb and gutter if altered by the addition;

j. Location and width of driveway, private sidewalks, decks, porches, patios, if impacted by the addition or when it affects restoration of the local drainage;

k. Direction of surface water flow by use of arrows showing any new path(s) that such will take around the addition, continuing to the point of discharge. The terms "Exist" or (E) for existing drainage path(s) or "New" (N) for a new path(s) next to flow arrows shall be used to denominate such on the plan;

l. Whenever an addition or upgrade to an existing structure is located in the floodplain, the design of such addition or upgrade shall also be submitted to the Stormwater Program Manager, who shall review such plans and identify any additional FEMA requirement(s).

*R401.3.7 Residential Location and Elevation Plan.* A Residential Location and Elevation Plan (RLEP) prepared by an Oklahoma Licensed Land Surveyor or a Registered Professional Engineer, shall be submitted to and accepted by the City upon completion of the foundation forms or completion of the foundation and slab, before proceeding with further vertical construction on a residence or a residential accessory structure greater than 300 square feet. The RLEP drawing shall be prepared at a scale of 1"=20'. The plan shall include the following:

a. Title block in lower right hand corner with lot or parcel address;

b. Subdivision name, lot and block number, if located within a platted subdivision;

c. Name, address and telephone number of the property owner and building contractor;

d. Drawing scale and north arrow;

e. Footprint(s) of all structures indicated by solid lines, including distances to property lines;

f. The reference mark/point;

g. Property lines and dimensions to corners of structure;

h. Location and measurement of the finished floor elevation at each corner of the structure;

i. The existing elevation of the designated discharge points of the lot per the RLP or the RLP-E;

j. Location of all easements, labeled by type and width;

k. Surveyor's or Engineer's signature and seal with date.

The acceptance of the RLEP by the City shall not relieve the Residential Building Contractor and/or the property owner building his/her own residence of any responsibility for compliance with all applicable regulations and such acceptance shall not waive any requirements of this chapter or of the adopted IRC and local amendments thereto.

R401.3.8 Compliance Affidavit. Upon completion of final grading, the Residential Building Contractor shall complete an affidavit on a form provided by the City that confirms the final lot grading was completed in compliance with the approved surface water drainage plan. No Certificate of Occupancy shall be issued by the City until said affidavit is completed and submitted in accordance with this section.

(~~w~~w) R403.1.3.2, *Slabs-on-ground with turn-down footings is hereby amended to read to-wit:* Exterior concrete footings shall be reinforced with a minimum of four (4)- number four (4) reinforcing bars, placed in a box arrangement with a 3-inch clearance from the bottom of the footing and a two (2) inch clearance from the side walls and joint overlap of not less than forty (40) bar diameters. Interior footings of one (1) story structures may be provided with an un-reinforced monolithic slab twelve (12) inches in width by ten (10) inches in depth, bearing on undisturbed natural soils or engineered fill.

Where the slab is not cast monolithically with the footing, No. 3 or larger vertical dowels shall be provided in accordance with Figure R403.1.3.2 except that hooks shall not be required.

(~~w~~x) R403.1.3.2, *Slabs-on-ground with turned-down footings, Exception is hereby deleted in its entirety.*

(~~x~~y) R403.1.8, *Foundations on expansive soils is hereby deleted and amended to read to wit:* Foundation and floor slabs for buildings located on expansive soils shall be designed in accordance with WRI/CRSI design of slab-on-ground foundations or PTI design and construction of post-tensioned slabs-on-ground or other foundation designs approved by the building official.

(~~y~~z) R506.2.3, *Vapor retarder is hereby deleted in its entirety.*

(~~z~~aa) R703.7.5, *Flashing is hereby amended to read to wit:* Flashing shall be located beneath points of support, including structural floors, shelf angles and lintels when masonry veneers are designed in accordance with Section R703.7. See Section R703.8 for additional requirements.

Exception: Flashing shall not be required beneath the first course of masonry above finished ground level above the foundation wall or slab.

(~~a~~abb) R703.7.6, *Weepholes is hereby deleted in its entirety.*

(~~b~~bcc) R1005.1, *Exterior air is hereby amended to read to-wit:* Factory-built fireplaces shall be equipped with an exterior air supply where required by the manufacturer's instructions. Masonry fireplaces, if equipped with exterior air supply, shall meet the requirements of this section for installation.

(~~e~~edd) N1101.1, *Scope is hereby repealed and replaced to read to-wit:* This chapter sets forth energy-efficiency related requirements for the design and construction of buildings regulated by this code within the City of Stillwater, Oklahoma.

(~~d~~dee) N1101.2, *Compliance is hereby repealed and replaced to read to-wit:* Compliance with this chapter shall be demonstrated by meeting the requirements of the applicable sections and tables of this chapter. Where applicable, provisions are based on climate zone "3A" per Table N1101.2 for the City of Stillwater, Oklahoma. Alternatively, compliance may be demonstrated by the submission of a report from an approved energy auditing agency certifying that the building is in compliance with the requirements of the 2009 International Energy Conservation Code for detached one-and-two family dwellings. Such report shall be submitted to the building official upon completion of the dwelling and before the issuance of the final Certificate of Occupancy.

(~~eeff~~) *N1101.4, Building thermal envelope insulation is hereby repealed and replaced to read to-wit:* The thermal resistance (R-value) shall be indicated on all insulation and the insulation shall be installed so that the R-value can be verified, or a certification of the installed R-value shall be provided at the job site by the insulation installer. Where blown-in or sprayed insulation is applied in walls, the installer shall provide a certification of the installed density and R-value. Where blown-in or sprayed insulation is applied in the roof-ceiling assembly, the installer shall provide a certification of the initial installed thickness, settled thickness, coverage area, and number of bags of insulating material installed or markers may be provided for every three hundred (300) square feet (twenty eight (28) m<sup>2</sup>) of attic area, attached to the trusses, rafters, or joists, and shall indicate in one (1) inch high (25.4 mm) numbers the installed thickness of the insulation.

(~~ffgg~~) *N1101.4.1 Blown or sprayed roof/ceiling insulation is hereby deleted in its entirety.*

(~~gggh~~) *N1101.4.2 Insulation mark installation is hereby deleted in its entirety.*

(~~hhij~~) *N1101.9 Certificate is hereby deleted in its entirety.*

(~~ijjj~~) *N1102.1, Insulation and Fenestration Criteria is hereby repealed and replaced to read to-wit:* The minimum required insulation R-value for elements in the building thermal envelope shall be in accordance with the following;

Fenestration U-factor 0.5

Ceilings R-30

Walls R-13

Floors R-19

Crawl Space R-10

Recommended optional insulation R-values are as follows;

Basement walls R-8

Slab perimeter R-5, eighteen (18) inch minimum below finish grade

(~~jjkk~~) *N1102.2.2, Ceilings without attic spaces is hereby amended to read to-wit:*

Where Section N1102.1 would require insulation levels above R-30 and the design of the roof/ceiling assembly does not allow sufficient space for the required insulation, the minimum required insulation for such roof/ceiling assemblies shall be R-30. Sloped roof/ceiling assemblies having a length of not more than 3 feet (912 mm) measured along the rafter pitch may be insulated with the same R-Value as the wall insulation below it. This reduction shall not apply to the U-factor alternative approach in Section N1102.1.2 and the Total UA alternative in Section N1102.1.3.

(~~kkll~~) *N1102.2.3 Access hatches and doors is hereby amended to read to-wit:*. Access doors from conditioned spaces to unconditioned spaces (e.g., attics and crawl spaces) shall be weatherstripped and insulated to a minimum of R-5. Access shall be provided to all equipment which prevents damaging or compressing the insulation. A wood framed or equivalent baffle or retainer is required to be provided when loose fill insulation is installed, the purpose of which is to prevent the loose fill insulation from spilling into the living space when the *attic* access is opened and to provide a permanent means of maintaining the installed R-value of the loose fill insulation.

(~~llmm~~) *N1102.2.6, Floors is hereby amended to read to-wit:* Floor insulation shall be installed to maintain permanent contact with the underside of the subfloor decking. The required R-value for floors shall apply to all floors, except any individual floor assembly with over twenty-five (25) percent of its conditioned floor area exposed directly to outside air shall meet the R-value requirement for "Ceilings."

(~~mmnn~~) *N1102.2.9, Crawl space walls is hereby amended to read to-wit:*

Where the floor above the crawl space is un-insulated, insulation shall be installed on crawl space walls when the crawl space is not vented to outside air. The required R-value in section N1102.1 shall be applied inside of the crawl space wall, downward from the sill plate to the exterior finished grade level and then vertically and/or horizontally for at least an additional twenty-four (24) inches (six hundred ten (610) mm). The exposed earth in all crawl space foundations shall be covered with a continuous Class 1 vapor

retarder. All joints of the vapor retarder shall overlap by 6 inches (152 mm). The edges of the vapor retarder shall extend at least 6 inches (152 mm) up the stem wall.

~~(nnoo)~~ *N11022.10, Masonry veneer is hereby amended to read to-wit: When exterior foundation insulation is installed, that horizontal portion of the foundation that supports a masonry veneer shall not be required to be insulated.*

~~(oopp)~~ *N1102.4.2 Air sealing and insulation and all its subsections are hereby deleted.*

~~(ppqq)~~ *N1102.4.3 Fireplaces is hereby deleted in its entirety.*

~~(qqrr)~~ *N1103.1.1 Programmable thermostat is hereby deleted in its entirety.*

~~(rrss)~~ *N1103.2.2 Sealing is hereby amended to read to wit: Ducts, air handlers, filter boxes and building cavities used as ducts shall be sealed. Joints and seams shall comply with Section M1601.4.*

~~(sstt)~~ *N1103.8.3 Pool covers is hereby deleted in its entirety.*

~~(ttuu)~~ *N1104.1 Lighting equipment is hereby deleted in its entirety.*

~~(ttvv)~~ *M1411.6 Locking access port caps is hereby deleted in its entirety.*

~~(vwww)~~ *M1503.4 Makeup air required is hereby deleted in its entirety.*

~~(wwwx)~~ *G2414.5.2 (403.5.2) Copper tubing is hereby amended to read to wit: Copper tubing shall comply with standard Type K or L of ASTM B 88 or ASTM B 280. Copper and brass tubing shall not be used.*

~~(xyyy)~~ *G2415.10 (404.10) Minimum burial depth is hereby amended to read to wit: Underground piping systems shall be installed a minimum depth of 18 inches (305 mm) below grade, except as provided for in Section G2415.10.1.*

~~(yyzz)~~ *P2503.4, Building sewer testing is hereby deleted in its entirety.*

~~(zzaaa)~~ *P2503.5.1 Rough plumbing is hereby amended to read to wit: DWV systems shall be tested on completion of the rough piping installation by water or air with no evidence of leakage. Either test shall be applied to the drainage system in its entirety or in sections after rough piping has been installed, as follows:*

1. Water test. Each section shall be filled with water to a point not less than 5 feet above the highest drainage fitting connection in that section, or to the highest point in the completed system. Water shall be held in the section under test for a period of 15 minutes. The system shall prove leak free by visual inspection.
2. Air test. The portion under test shall be maintained at a gauge pressure of 5 pounds per square inch (psi) (34 kPa) or 10 inches of mercury column (34 kPa). This pressure shall be held without introduction of additional air for a period of 15 minutes.

~~(aaabbb)~~ *P2503.7 Water-supply system testing is hereby amended to read to wit: Upon completion of the water-supply system or a section of it, the system or portion completed shall be tested and proved tight under a water pressure of not less than the working pressure of the system or, for piping systems other than PVC or CPVC, by an air test of not less than 50 psi (345 kPa). This pressure shall be held for not less than 15 minutes. The water used for tests shall be obtained from a potable water source.*

~~(bbbccc)~~ *P2603.6.1, Sewer depth is hereby amended by inserting the 12 inches (305 mm) for and in exchange of the word "number" at two (2) locations.*

~~(eedddd)~~ *P2903.8.6 Hose bibb bleed is hereby deleted in entirety.*

~~(deeeeee)~~ *P2903.9.1 Service valve is hereby amended to read to wit: Each dwelling unit shall be provided with an accessible main shutoff valve near the entrance of the water service. The valve shall be of a full-open type having nominal restriction to flow.*

Additionally, the water service shall be valved at the curb or property line in accordance with local requirements.

~~(eeefff)~~ P2903.10 *Hose bibb is hereby amended to read to wit:* Hose bibbs subject to freezing, including the "frost-proof" type, shall be equipped with an accessible valve inside the building so that they can be controlled and/or drained during cold periods.

Exception: Frostproof hose bibbs installed such that the stem extends through the building insulation into a heated or semi-conditioned space need not be separately valved (see Figure P2903.10). Frostproof hose bibbs installed such that the stem extends through the building insulation into an interior wall with heated space on at least one side of the wall need not be separately valved.

~~(fffggg)~~ P2905.4 *Water service pipe is hereby amended to read to wit:* Water service pipe shall conform to NSF 61 and shall conform to one of the standards listed in Table P2905.4. Water service pipe or tubing, installed underground and outside of the structure, shall have a minimum working pressure rating of 160 pounds per square inch at 73°F (1103 kPa at 23°C). Where the water pressure exceeds 160 pounds per square inch (1103 kPa), piping material shall have a rated working pressure equal to or greater than the highest available pressure. Water service piping materials not third-party certified for water distribution shall terminate a minimum of 30 inches from exterior walls. Ductile iron water service piping shall be cement mortar lined in accordance with AWWA C104.

~~(ggghhh)~~ P3003.2 *Prohibited joints is hereby amended by adding the following Exception: Exception: Saddle type fittings are permitted to be used to join private building sewers to the public sewer.*

~~(hhhhii)~~ E3401.4 *Additions and alterations is hereby amended to read to wit:* Any addition or alteration to an existing electrical system shall be made in conformity with the provisions of Chapters 34 through 43. Where additions subject portions of existing systems to loads exceeding those permitted herein, such portions shall be made to comply with Chapters 34 through 43. Existing knob-and-tube wiring systems shall not be extended in any manner.

~~(iiijjj)~~ E3406.2 *Conductor material is hereby amended to read to wit:* Conductors used to conduct current shall be of copper except as otherwise provided in Chapters 34 through 43. Where the conductor material is not specified, the material and the sizes given in these chapters shall apply to copper conductors. Where other materials are used, the conductor sizes shall be changed accordingly. Aluminum or copper clad aluminum conductors shall be permitted to be used for outdoor feeders or branch circuits and shall be sized per the requirements of the National Electric Code.

~~(jjkkkk)~~ E3604.5 *Service masts as supports is hereby-amended to read to wit:* Where a service mast is used for support of service drop conductors, it shall be a minimum two (2) inch diameter and of Rigid Metal Conduit (RMC) and may be required to have additional support by braces or guys to withstand the strain imposed by the service drop. Where raceway-type service masts are used, all raceway fittings shall be identified for use with service masts. Only power service drop conductors shall be permitted to be attached to a service mast.

~~(kkllll)~~ E3610.2 *Securing and protection against physical damage is hereby-amended to read to wit:* Where exposed, a grounding electrode conductor or its enclosure shall be securely fastened to the surface on which it is carried. A 6 AWG or larger copper shall be protected where exposed to physical damage by rigid metal conduit, intermediate metal conduit, rigid nonmetallic conduit, electrical metallic tubing, or cable armor. Grounding electrode conductors smaller than 6 AWG shall be in rigid metal conduit, intermediate metal conduit, rigid nonmetallic conduit, electrical metallic tubing, or cable armor

~~(Hhmmmm)~~ E3702.2 *Branch-circuit ampere rating is hereby-amended to read to wit:* Branch circuits shall be rated in accordance with the maximum allowable ampere rating or setting of the overcurrent protection device. The rating for other than individual branch circuits shall be 20, 30, 40 and 50 amperes. Where conductors of higher ampacity are

used, the ampere rating or setting of the specified over-current device shall determine the circuit rating.

~~(mmmmnnn)~~ *E3702.3 Fifteen- and 20-ampere branch circuits is hereby amended to read to-wit:* A 20-ampere branch circuit shall be permitted to supply lighting units, or other utilization equipment, or a combination of both. The rating of any one cord-and-plug-connected utilization equipment not fastened in place shall not exceed 80 percent of the branch-circuit ampere rating. The total rating of utilization equipment fastened in place, other than luminaires, shall not exceed 50 percent of the branch-circuit ampere rating where lighting units, cord-and-plug-connected utilization equipment not fastened in place, or both, are also supplied.

~~(nnnooo)~~ *E3608.1.1.1 Installation is hereby amended to read to wit:* Continuity of the grounding path or the bonding connection to interior piping shall not rely on water meters, filtering devices and similar equipment. A metal underground water pipe shall be supplemented by an additional electrode of a type specified in Sections E3608.1.2 through E3608.1.6. The supplemental electrode shall be bonded to the grounding electrode conductor, the grounded service entrance conductor, a nonflexible grounded service raceway or any grounded service enclosure. Where the supplemental electrode is a rod, pipe or plate electrode in accordance with Section E3608.1.4 or E3608.1.5, it shall comply with Section E3608.4.

Where the supplemental electrode is a rod, pipe or plate electrode in accordance with Section E3608.1.4 or E3608.1.5, that portion of the bonding jumper that is the sole connection to the supplemental grounding electrode shall not be required to be larger than 6 AWG copper.

~~(ooopp)~~ *E3608.3 Rod, pipe and plate electrode requirements is hereby amended to read to wit:* Where practicable, rod, pipe and plate electrodes shall be embedded below permanent moisture level. Such electrodes shall be free from nonconductive coatings such as paint or enamel. Where more than one such electrode is used, each electrode of one grounding system shall be not less than 6 feet (1829 mm) from any other electrode of another grounding system. Two or more grounding electrodes that are effectively bonded together shall be considered as a single grounding electrode system. That portion of a bonding jumper that is the sole connection to a rod, pipe or plate electrode shall not be required to be larger than 6 AWG.

~~(pppqgg)~~ *E3610.2 Securing and protection against physical damage is hereby amended to read to wit:* Where exposed, a grounding electrode conductor or its enclosure shall be securely fastened to the surface on which it is carried. A 4 AWG or larger conductor shall be protected where exposed to physical damage. A 6 AWG grounding conductor that is free from exposure to physical damage shall be permitted to be run along the surface of the building construction without metal covering or protection where it is and securely fastened to the construction; otherwise, it shall be in rigid metal conduit, intermediate metal conduit, rigid nonmetallic conduit, electrical metallic tubing or cable armor. Grounding electrode conductors smaller than 6 AWG shall be in rigid metal conduit, intermediate metal conduit, rigid nonmetallic conduit, electrical metallic tubing or cable armor.

~~(qqqrrr)~~ *E3705.5.3 Small conductors is hereby amended to read to wit:* Except as specifically permitted by Section E3705.5.4, the rating of overcurrent protection devices shall not exceed the ratings shown in Table E3705.5.3 for the conductors specified therein. Aluminum or copper clad aluminum conductors are prohibited.

~~(rrssss)~~ *E3908.8 Types of equipment grounding conductors is hereby amended to read to wit:* The equipment grounding conductor run with or enclosing the circuit conductors shall be one or more or a combination of the following:

1. A copper conductor. This conductor shall be solid or stranded; insulated, covered or bare; and in the form of a wire or a busbar of any shape.
2. Rigid metal conduit.
3. Intermediate metal conduit.
4. Electrical metallic tubing.
5. Armor of Type AC cable in accordance with Section E3908.4.

6. Type MC cable where listed and identified for grounding in accordance with the following:
  - 6.1. The combined metallic sheath and grounding conductor of interlocked metal tape-type MC cable.
  - 6.2. The metallic sheath or the combined metallic sheath and grounding conductors of the smooth or corrugated tube-type MC cable.
7. Other electrically continuous metal raceways and auxiliary gutters.
8. Surface metal raceways listed for grounding.

(~~sssttt~~) *E4002.14 Tamper-resistant receptacles is hereby amended to read to wit:* In areas specified in Section E3901.1, 125-volt, 15- and 20-ampere receptacles shall be listed tamper-resistant receptacles.

Exception: Receptacles in the following four locations are not required to be tamper-resistant:

1. Receptacles located more than 1.7m (6.5 ft) above the floor.
2. Receptacles that are part of a luminaire or appliance.
3. A single receptacle or a duplex receptacle for two appliances located within dedicated space for each appliance that in normal use is not easily moved from one place to another and that is cord-and-plug connected in accordance with 400.7(A)(6), (A)(7) or (A)(8).
4. Nongrounding receptacles used of replacements as permitted in 406.4(D)(2)(a).

(~~ttuuuu~~) *M1503.2, Duct material is hereby amended to read to wit: Single-wall ducts serving range hoods shall be constructed of galvanized steel, stainless steel or copper.*

Exception: Ducts for domestic kitchen cooking appliances equipped with down draft exhaust systems shall be permitted to be constructed of PVC pipe provided that the installation complies with all of the following:

1. The duct shall be installed under a concrete slab poured on grade,
2. The underfloor trench in which the duct is installed shall be completely backfilled with sand or gravel,
3. The PVC duct shall extend not greater than one (1) inch (25.4 mm) above the indoor concrete floor surface,
4. The PVC ducts shall be solvent cemented.
5. All fittings shall be PVC of the same material as the pipe to which they are attached.

(~~uuuvvv~~) *R105.2, Work exempt from permit Electrical, 6 is hereby adding to read to wit:* 6. The replacement of switches, luminaires, lampholders and fans, but not the outlets therefore.

(~~vvvwww~~) *R105.2, Work exempt from permit, is hereby amended by adding a new section Plumbing to read to wit:* Plumbing: 1. The replacement of plumbing fixtures and faucets provided such replacement does not involve the rearrangement of piping.

(~~wwwxxx~~) *R302.1 Exterior walls is hereby amended to read to wit:* Exterior walls with a fire separation distance less than 3 feet (914 mm) shall have not less than a one-hour fire-resistive rating with exposure from both sides.

Exception: Walls of dwellings and accessory structures located on the same lot.

Projections shall not extend to a point closer than 2 feet (610 mm) from the line used to determine the fire separation distance.

Exception: Detached garages accessory to a dwelling located within 2 feet of a lot line shall be permitted to have roof eave projections not exceeding 4 inches.

Projections extending into the fire separation distance shall have not less than one-hour fire-resistive construction on the underside. The above provisions shall not apply to walls which are perpendicular to the line used to determine the fire separation distance.

Exception: Tool and storage sheds, playhouses and similar structures exempted from permits by R105.2 are not required to provide wall protection based on location on the lot. Projections beyond the exterior wall shall not extend over the lot line.

R302.1.1 Openings. Openings shall not be permitted in the exterior wall of a dwelling or accessory building with a fire separation distance less than 3 feet (914 mm). This distance shall be measured perpendicular to the line used to determine the fire separation distance.

Exceptions:

1. Openings shall be permitted in walls that are perpendicular to the line used to determine the fire separation distance.
2. Foundation vents installed in compliance with this code are permitted.

R302.1.2 Penetrations. Penetrations located in the exterior wall of a dwelling with a fire separation distance less than 3 feet (914 mm) shall be protected in accordance with Section R317.3.

Exception: Penetrations shall be permitted in walls that are perpendicular to the line used to determine the fire separation distance.

~~(xxxyyy)~~ R310.1.1 *Minimum opening area is hereby amended by to read to wit:* All emergency escape and rescue openings shall have a minimum net clear opening of 5 square feet (0.465 m<sup>2</sup>).

~~(yyyzzz)~~ R314.3.1 *Alterations, repairs and additions is hereby amended to read to wit:* In existing individual dwellings, the individual dwelling unit shall be equipped with smoke alarms located as required for new dwellings when any of the following permits are required:

1. when a building permit is required for alterations, repairs or additions in which the value of the work covered by the permit exceeds \$1,000, or
2. when a building permit is required to add or create one or more sleeping rooms, or
3. when an electrical permit is required for work performed as part of an interior renovation that does not require a building permit but where more than 50% of the dwelling unit ceiling coverings will be removed as part of the renovation.

~~(zzzaaaa)~~ R314.4 Power Source is hereby amended by adding a definition to Exception 2 to read to wit: Accessible Attic Space is herein defined as any portion of the attic where a smoke detector would be required to be installed that is accessible from the attic access by a continuous path that is a minimum of twenty-four inches high by twenty-four inches wide (24"x24"). Such path shall not be required to be in a straight line and shall be allowed to be over or under obstructions such as duct work provided that the minimum height and width of the path is not diminished

~~(aaaabbbb)~~ R315.1 is hereby amended by adding Exception 1 to read to wit: Carbon monoxide detection is not required in residences with attached garages when the door between the residence and the garage is weather-sealed and there are no fuel burning appliances in the garage or the residence.

~~(bbbcccc)~~ R315.2 *Where required in existing dwellings is hereby amended to read to wit* In existing individual dwellings that have attached garages without weather-sealed connecting doors to the residence or in existing individual dwellings within which fuel-fired appliances exist, carbon monoxide alarms shall be provided in the individual dwelling in accordance with Section R315.1 when any of the following permits are required:

1. when a building permit is required for alterations, repairs or additions in which the value of the work covered by the permit exceeds \$1,000, or
2. when a building permit is required to add or create one or more sleeping rooms, or
3. when a plumbing or mechanical permit is required to replace any fuel-fired appliance

~~(eeeeeeee)~~ R323.1 *General is hereby amended to read to wit:* This section applies to the construction of storm shelters when constructed as separate detached buildings or when constructed as safe rooms within buildings for the purpose of providing safe refuge from storms that produce high winds, such as tornados and hurricanes.

~~(dddeeee)~~ R403.1.6 Foundation anchorage is hereby amended by adding exception 4 to read to wit: 4. Wood sole plates of braced wall panels at building interiors on monolithic slabs may be anchored using anchors with a shear capacity of 2300 lbs and a tensile capacity of 800 lbs spaced not more than 6 feet apart. There shall be a minimum of two bolts per plate. Alternatively, the total required shear and tensile capacity may be achieved through the use of multiple anchors of lesser capacity provided that each foot of

plate contains enough anchors to provide 384 lbs of total shear capacity and 134 lbs of total tensile capacity. There shall be a minimum of two anchors per plate.

~~(eeeeffff)~~ R404.2 is hereby amended by adding Exception 1 to read to wit: Exception 1. Interior concrete slabs on grade and enclosed garage slabs are not required to be air entrained.

~~(ffffgggg)~~ R406.2 Concrete and masonry foundation waterproofing is hereby amended by adding number 8 to read to wit: 8. Bentonite

~~(gggghhhh)~~ R502.2.2.3 Deck lateral load connection is hereby amended to read to wit: The lateral load connection required by Section R502.2.2 shall be permitted to be in accordance with Figure R502.2.2.3. Hold-down tension devices shall be installed in not less than two locations per deck, and each device shall have an allowable stress design capacity of not less than 1500 pounds (6672 N). When interior joists are not accessible for the attachment of hold-downs due to building finishes, other connections may be used upon approval of the building official.

~~(hhhhiiii)~~ R801.3 Roof drainage is hereby deleted in its entirety.

~~(iiiijjjj)~~ R802.5.1 Purlins. Installation of purlins to reduce the span of rafters is permitted as shown in Figure R802.5.1. Purlins shall be sized no less than the required size of the rafters that they support. Purlins shall be continuous and shall be supported by braces installed to bearing walls at a slope not less than 45 degrees from the horizontal. The braces shall be spaced not more than 4 feet (1219 mm) on center for 2-inch by 4-inch (51 mm by 102 mm) or 6 feet (1829 mm) on center for 2-inch by 6-inch (51 mm by 152 mm) on center and the unbraced length of braces shall not exceed 8 feet (2438 mm).

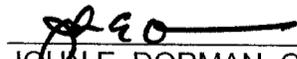
PASSED, APPROVED, AND ADOPTED THIS 16TH DAY OF MAY, 2011.

  
NATHAN BATES, MAYOR

(SEAL)  
ATTEST:

  
MARCY ALEXANDER, CITY CLERK

APPROVED AS TO FORM AND LEGALITY THIS 16TH DAY OF MAY, 2011.

  
JOHN E. DORMAN, CITY ATTORNEY

First Reading: 5-2-11  
Second Reading: 5-16-11