

**INTERNATIONAL RESIDENTIAL CODE  
FOR ONE AND TWO-FAMILY  
DWELLINGS 2009 EDITION**



CITY OF  
**Tulsa**  
*A New Kind of Energy™*



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ORDINANCE NO. 22530

AN ORDINANCE AMENDING THE BUILDING CODE OF THE CITY OF TULSA, OKLAHOMA, TITLE 51 TULSA REVISED ORDINANCES, CHAPTER 2; ADOPTING THE ICC INTERNATIONAL RESIDENTIAL CODE FOR ONE- AND TWO-FAMILY DWELLINGS, 2009 EDITION PUBLISHED BY THE INTERNATIONAL CODE COUNCIL, INC. (ICC), AS AMENDED AND REVISED IN TITLE 748 UNIFORM BUILDING CODE COMMISSION – CHAPTER 20 AND AMENDED BY THIS ORDINANCE; PROVIDING FOR THE REGULATION OF DESIGN, CONSTRUCTION, QUALITY OF MATERIALS, ERECTION, INSTALLATION, LOCATION, REPLACEMENT, REPAIR, ALTERATION, OCCUPANCY, ADDITION, RELOCATION, AND DEMOLITION OR USE OF ONE- AND TWO-FAMILY DWELLINGS AND TOWNHOUSES NOT MORE THAN THREE STORIES IN HEIGHT WITH SEPARATE MEANS OF EGRESS; PROVIDING FOR THE ADMINISTRATION THEREOF, THE ISSUANCE OF PERMITS, COLLECTION OF FEES, AND MAKING OF INSPECTIONS; PROVIDING FOR APPEALS; PROVIDING DEFINITIONS; PROVIDING FOR THE CLASSIFICATION OF WORK, REPAIRS, LEVELS OF ALTERATIONS, OCCUPANCY, AND ADDITIONS THERETO; PROVIDING PENALTIES FOR THE VIOLATION PROVIDING FOR SEVERABILITY; PROVIDING THAT THE OPERATIVE DATE OF THIS ORDINANCE SHALL BE XXXXX, 2011; AND DECLARING AN EMERGENCY.

BE IT ORDAINED BY THE CITY OF TULSA:

*Section 1. That Title 51, Tulsa Revised Ordinances, Chapter 2 be and the same is hereby amended to read as follows:*

**"CHAPTER 2 ICC INTERNATIONAL RESIDENTIAL CODE  
FOR ONE- AND TWO-FAMILY DWELLINGS, 2009 EDITION ADOPTED**

- Section 200. Adoption of the ICC International Residential Code for One- and Two-Family Dwellings, 2009 Edition
- Section 201. Amendments to the ICC International Residential Code for One- and Two-Family Dwellings, 2009 Edition
- Section 202. Protection of Existing Rights and Remedies

**SECTION 200. ADOPTION OF THE ICC INTERNATIONAL RESIDENTIAL CODE FOR ONE- AND TWO-FAMILY DWELLINGS, 2009 EDITION AND AS AMENDED HEREINAFTER,**

A certain document, three (3) copies of which are on file in the Office of the City Clerk, being marked and designated as the *International Residential Code for One- and Two-Family Dwellings*, 2009 Edition, as published by the International Code Council (ICC) and amended or revised as stated in Title 748 Uniform Building Code Commission – Chapter 20, is hereby adopted as a part of the Building Code of the City of Tulsa, Oklahoma, for regulating the design, construction, quality of materials, erection, installation, alteration, repair, location, relocation, replacement, addition to, or use of one- and two-family dwellings and townhouses not more than three stories in height with separate means of egress in the City of Tulsa. Consistent with the adoption of this *International Residential Code*, 2009 Edition, there is hereby provided for the related issuance of permits and collection of fees. Each and all of the terms, conditions, regulations, and provisions of the *International Residential Code*, 2009 Edition, published by the ICC, as supplemented and amended, on file in the Office of the City Clerk of the City of Tulsa are hereby referred to, adopted and made a part of the Tulsa Revised Ordinances, as if fully set out in this Chapter, with its amendments, as prescribed in Section 201 of this Chapter and, as used in this Chapter 2, may be referred to as the "code."

**SECTION 201. AMENDMENTS TO THE INTERNATIONAL RESIDENTIAL CODE FOR ONE- AND TWO-FAMILY DWELLINGS, 2009 EDITION**

The following provisions of the *International Residential Code for One- and Two-Family Dwellings*, 2009 Edition, are hereby added, or amended to read as follows:

**R101.1 Title-Amendatory.** These provisions shall be known and may be cited as the Residential Code for One- and Two-Family Dwellings of the City of Tulsa" or as the "Tulsa Residential Building Code."

**R103.1 Enforcement agency-Amendatory.** The term "Department of Building Safety," as used within the *International Residential Code for One- and Two-Family Dwellings*, 2009 Edition shall mean the Development Services-Department of the City of Tulsa or other department, division or section of the City of Tulsa authorized and directed to enforce the provisions of this code.

**R103.2 Appointment-Amendatory.** The "building official" or "code official," as used in this chapter and *International Residential Code for One- and Two-Family Dwellings*,

2009 Edition, as adopted by the City of Tulsa, shall be the official in charge of the enforcement of this code as appointed or otherwise designated by the Mayor.

**R103.4 Conflict of Interest Prohibited**--Added. Code officials shall ascribe to and be guided in professional conduct as City of Tulsa representatives as provided in Title 12, Chapter 6 "Ethics Code," Tulsa Revised Ordinances.

**R105.1.1 By Whom Application is Made**-Added. The application for a permit shall be made by the owner or lessee of the building or structure, or the agent of either or by the licensed engineer or architect employed in connection with the proposed work. If an application is made by a person other than the owner in fee, it shall be accompanied by an affidavit of the owner or the qualified applicant or a signed statement of the qualified applicant witnessed by the building official or designee informing that the proposed work is authorized by the owner in fee and that the applicant is authorized to make such application. The full names and addresses of the owner, lessee, applicant, and the responsible officers, if the owner or lessee is not a natural person, shall be stated on the application. The owner of the building or structure shall at all times retain ownership rights and authority for use and control of such application and any related subsequent permits issued pursuant to this code.

**R105.1.2 Zoning Clearance Required**-Added. The code official shall not issue a building permit for any building or other structure until and unless the code official is furnished a Zoning Clearance Permit issued by the zoning official stating that the use or occupancy of such building or structure complies with, or, upon completion, will comply with applicable zoning ordinances of the City of Tulsa.

**Exception:** A Zoning Clearance Permit is not required for the remodeling of an existing building or structure, unless it will result in a change of the size or use of the building or structure.

**R105.1.3 Fire Sprinkler Permit**-Added. A permit shall be obtained before installing, altering or removing any portion of an automatic fire sprinkler system. The code official shall not issue a fire sprinkler permit for the installation of an automatic sprinkler system until the person, firm, corporation, or Limited Liability Company or other entity installing the same shall have on file with the City of Tulsa a surety bond in the amount of Two Thousand Five Hundred Dollars (\$2,500.00). Such bond shall be on a form satisfactory to the City, guaranteeing payment of all obligations and guaranteeing installation in accordance with the provisions of this code. No person, firm, corporation, limited liability company or other entity shall install fire sprinkler systems unless licensed as provided in 59 O.S.2001, §§ 1800.1, *et seq.*, as amended, and related rules and regulations.

**R105.3 Application for permit – Amendatory.** To obtain a building *permit*, the applicant shall first file an application therefore in writing on a form furnished by the City of Tulsa 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. State the valuation of the proposed work.
6. Be signed by the applicant or the applicant's authorized agent.
7. Give such other data and information as required by the *building official*.

**R105.3.(a) – License Added.** All Electrical permits and required licensing shall be administered as described in Title 52, Tulsa Revised Ordinance. All Mechanical permits and required licensing shall be administered as described in Title 59, Tulsa Revised Ordinance. All Plumbing and required licensing shall be administered as described in Title 56, Tulsa Revised Ordinance.

**R105.3.3 Payment of Fees –Amendatory.** Upon receipt of an application for a building permit, an application fee shall be paid. Upon approval the applicant shall then be notified the permit is ready and advised of what remaining fees are due. In order for the permit to be valid, it shall have been paid in full and posted at the job site prior to beginning construction. Payment for permits is due upon notification to applicant that the permit has been approved and is ready for issuance. Any permit not paid within thirty (30) days after notification may be deemed void by the code official and the application fee shall then be forfeited. An amendment to a permit shall not be released until the additional fee, if any, has been paid.

**R105.7 Placement of Permit-Amendatory.** A copy of the building permit shall be posted on the site of operations, visible from the street, and open to public inspection during the entire time of execution of the work and until the completion of the same.

**R108.1.1 Accounts-Added.** Every person or entity shall be issued an account number at the time of an initial permit application as established by Title 49, Tulsa Revised Ordinance.

**R108.2 Schedule of Permit Fees - Amendatory.** On buildings, structures, electrical, gas, mechanical and plumbing systems or *alterations* requiring a *permit*, a fee for each *permit*

shall be paid as required, in accordance with the schedule as established by Title 49, Tulsa Revised Ordinances.

**R109.1.3 Finished Floor Elevation and Flood Vents** – Amendatory. When a minimum finished floor elevation is specified in a permit, no additional work shall be performed after approval of the slab or floor until an elevation certificate, verifying the floor elevation, and the size and location of any required flood vents, has been received and approved by the code official. The elevation certificate shall be prepared by a land surveyor or engineer who is licensed by the state of Oklahoma, using an appropriate form provided by the code official.

**R109.1.3.2 Final Floodplain Elevation Certificate** – Added. Prior to the final inspection, a final elevation certificate shall be required for those structures located in areas prone to flooding, as established by Table R301.2(1) of this code. The certificate, as approved by the code official, shall confirm the finished floor elevation, the size and location of flood vents, and shall verify the lowest elevation of mechanical equipment. The certificate shall be prepared by a land surveyor or engineer licensed by the state of Oklahoma and shall be provided to the code official for approval.

**R109.1.5.2 Placement of Erosion Control Inspection (PEC)**-Added. After issuance of a permit for work that involves disturbance of earth, and before any other earthwork begins, the permit applicant or the applicant's authorized agent shall (1) identify and mark property lines, easements and floodplains, (2) install erosion control in accordance with the approved site plan, and (3) request a Placement of Erosion Control Inspection (PEC). No other work may be performed until the building official authorizes further construction activity. All construction including development, excavation, grading, re-grading, paving, landfilling, berming, and diking of land shall be conducted so as to minimize erosion and prevent the discharge of pollutants (including, but not limited to rock, sand, and soil) into the municipal storm sewer system or onto adjacent occupied property. Persons conducting construction shall implement and maintain acceptable structural and/or nonstructural barriers for controlling erosion. Failure to install and maintain adequate erosion control may result in issuance of a stop work order on all trades by the building official.

**R109.1.6 Final Inspection**-Amendatory. Final inspection shall be made after the permitted work is complete and prior to occupancy. It shall be unlawful and an offense for any person, firm, corporation, or limited liability company, whether as owner, lessee, sub-lessee, or occupant, to use or occupy any structure regulated by this code or part thereof, or cause same to be done, until all required final inspections on all open permits have been made, except as authorized by the IRC 2009, Section R110.4.

**R109.4 Approval Required** – Amendatory. Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the *code*

*official*. The *code official* upon notification shall make the requested inspections and shall either indicate the portion of the construction that is satisfactory as completed, or shall notify the *permit* holder or an agent of the *permit* holder wherein the same fails to comply with this code. Any portions that do not comply shall be corrected and such portion shall not be covered or concealed until authorized by the *code official*. Work that is covered or concealed, or a residence that is occupied without approval of the code official shall be in violation of this code and be penalized by the imposition of a civil fine in accordance with Title 49, Tulsa Revised Ordinances for each occurrence and may result in a hearing before the Building, Housing, and Fire Prevention Appeals Board. The assessment or payment of this penalty shall not relieve any person, firm, corporation, or limited liability company from fully complying with all the requirements of this code nor shall such payment exempt the person, firm, corporation, or limited liability company or other entity from further penalty provided by law.

## **SECTION R112 BOARD OF APPEALS**

**R112.1 General – Amendatory.** In order to hear and decide appeals of orders, decisions or determinations made by the *code official* relative to the application and interpretation of this code, there shall be and is hereby created a Board of Appeals. The *code official* shall be an ex officio member of said board but shall have no vote on any matter before the board. The Board of Appeals shall be appointed by the Mayor and shall hold office at the Mayor's pleasure. The Board shall adopt rules of procedure for conducting its business, and shall render all decisions and findings in writing to the appellant with a duplicate copy to the *code official*.

**R112.1.1 Initiation Of An Appeal – Added.** An initiation of an appeal shall be in writing addressed to the code official as follows:

1. Set forth in detail the precise decision or requirement being appealed;
2. State precisely why the decision or requirement is in error;
3. Designate the section(s) of the code, other ordinances or statute(s) which support(s) the appellant's position; and
4. Payment of a fee as required in Title 49 Tulsa Revised Ordinance.

**R112.1.2 Informal Review – Added.** Upon request, the Director of Development Services or his designee shall conduct an informal review to determine if a formal appeal is necessary. Upon finding that an appeal is necessary, the Director of Development Services shall notify the Chairman of the Board, who shall then proceed in accordance with the Board's rules to schedule the hearing and notify the appellant accordingly.

**R112.3 Qualifications. – Added.** The Board of Appeals shall consist of members who are qualified by experience and training to pass on matters pertaining to building construction. The membership of the Board shall be as established in Title 51, Chapter 1 Tulsa Revised Ordinance.

**R113.4 Violation-Penalties-Added.** It shall be unlawful and an offense for any person, firm, corporation, limited liability company or other entity to violate any of the provisions of this code, fail to comply with any of the requirements thereof, or to erect, construct, alter, or repair any building or structure in violation of an approved plan or directive of the building official or of a permit issued under the provisions of this code. Any person, firm, corporation, limited liability company or other entity convicted of a violation of this code shall be guilty of a misdemeanor offense and shall be punished by a fine of not more than Five Hundred Dollars (\$500.00), excluding costs, fees, and assessments, or by imprisonment in the City Jail for a period not exceeding ninety (90) days, or by both such fine and imprisonment. Each day, or portion thereof, during which a violation is committed, or continued, shall be deemed a separate offense.

## **CHAPTER 2 DEFINITIONS**

### **SECTION R202 DEFINITIONS – Amendatory.**

**FLOOD HAZARD AREA-Added.** For all buildings or structures located inside the city's corporate limits, the flood hazard area, also called "areas prone to flooding", shall be as designated on the City of Tulsa's adopted Regulatory Flood Plain Maps and the currently effective Flood Insurance Rate Maps (FIRM).

**FLOODWAY-Added.** The channel of the river, creek or other watercourse and the adjacent land areas that must be reserved in order to discharge a base flood without cumulatively increasing the water surface elevation as prescribed by applicable City ordinances.

**SUBSTANTIAL IMPROVEMENT-Added.** Any repair, reconstruction or improvement of a structure, the cost of which equals or exceeds fifty percent (50%) of the market value of the structure, either before the improvement or repair is started or, if the structure has been damaged and is being restored, before the damage occurred. For purposes of this definition "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. The term shall not, include:

1. Any project(s) for improvement of a structure to comply with existing state or local health, sanitary or safety code specifications which are solely necessary to assure safe living conditions, or
2. Any alterations of a structure listed on the National Register of Historic Places or State Inventory of Historic Places.

The cost used in the substantial improvement determination shall be the cumulative costs of all previous improvements for a specific building or structure occurring during the immediate past 10-year period.

### CHAPTER 3 BUILDING PLANNING

**TABLE 301.2 (1) – Amendatory.  
CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA**

GROUNDSNOW LOAD	WIND DESIGN		SEISMIC DESIGN CATEGORY	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP	ICE BARRIER UNDER- LAYMENT REQUIRED	FLOOD HAZARDS	AIR FREEZING INDEX	MEAN ANNUAL TEMP
	Speed (mph)	Topographic effects		Weathering	Frostline Depth	Termite					
10 PSF	90	N/A	BY ZONE A OR B <sup>a</sup>	MODERATE	18"	YES	12 <sup>o</sup> F	No	See note b.	442	60.3

<sup>a</sup>The area North of State Highway 412 is Seismic Design Category A and the area south of State Highway 412 is Seismic Design Category B.

<sup>b</sup> Flood hazard areas (also called areas prone to flooding) shall be as designated on the currently adopted Flood Insurance Rate Map (FIRM) and the currently adopted City of Tulsa Regulatory Floodplain Map Atlas.

**R302.1 Exterior walls. – Added.** Construction, projections, openings and penetrations of exterior walls of dwellings and accessory buildings shall comply with Table R302.1. Projections beyond the exterior wall shall not extend more than 12 inches (305 mm) into the areas where openings are prohibited.

Exceptions:

1. Walls, projections, openings or penetrations in walls perpendicular to the line used to determine the fire separation distance.
2. Opposite facing walls of dwellings and accessory structures located on the same lot .
3. Detached tool sheds and storage sheds, playhouses and similar structures exempted from permits 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 .
4. Detached garages accessory to a dwelling located within 2 feet (610 mm) of a lot line are permitted to have roof eave projections not exceeding 4 inches (102 mm).
5. Foundation vents installed in compliance with this code are permitted.

**TABLE R302.1**

**EXTERIOR WALLS – Added** as stated in Title 748 Uniform Building Code Commission – Chapter 20. Adopted Codes Subchapter 5. 748:20-5-6. IRC 2009 Chapter 3 Building Plans (1).

EXTERIOR WALL ELEMENT	MINIMUM FIRE-RESISTANCE RATING	MINIMUM FIRE SEPARATION DISTANCE
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Walls	(Fire-resistance rated)	1 hour-tested in accordance with ASTM E 119 or UL 263 with exposure form both sides	< 3 feet
	(Not fire-resistance rated)	0 hours	≥3 feet
Projections	(Fire-resistance rated)	1 hour on the underside	≥2 feet to 3feet
	(Not fire-resistance rated)	0 hours	>3feet
Openings in walls	Not allowed	N/A	< 3 feet
	25% maximum of wall area	0 hours	3 feet
	Unlimited	0 hours	5 feet
Penetrations	All	Comply with Section R317.3	< 5 feet
		None required	5 feet

For SI: 1 foot = 304.8 mm.  
N/A = Not Applicable.

**R311.7.4.1 Riser Heights – Added.** The maximum riser height shall be 7 3/4 inches (196 mm) and shall be measured during the rough-in inspection. The riser shall be measured vertically between leading edges of the adjacent treads. The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm) as measured during rough in inspection. Top and bottom riser may vary by 3/4 inch at final inspection, not to exceed 7 3/4 of an inch (196mm).

**R313.2 One- and two-family dwellings automatic fire systems.** This section has been moved to Appendix R, Automatic Fire Systems of the IRC 2009 and is not adopted as a minimum standard for residential construction within the State of Oklahoma.

**R313.2.1 Design and installation.** This section has been moved to Appendix R, Automatic Fire Systems of the IRC 2009 and is not adopted as a minimum standard for residential construction within the State of Oklahoma.

**R314.4 Power source. – Amendatory.** Smoke alarms shall receive their primary power from the building wiring when such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection. Smoke alarms shall be interconnected. All required smoke alarms in the individual unit shall be connected to the same luminaire circuit.

**Exceptions:**

1. Smoke alarms shall be permitted to be battery operated when installed in buildings without commercial power.
2. Interconnection and hard-wiring of smoke alarms in existing areas shall not be required where the *alterations* or repairs do not result in the removal of interior wall or ceiling finishes exposing the structure, unless there is an *attic* , crawl space or *basement* available which could provide access for hard wiring and interconnection without the removal of interior finishes.

**R315.1 Carbon monoxide alarms. – Added.** For new construction, an approved carbon monoxide alarm shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms in *dwelling units* within which fuel-fired *appliances* are installed and in dwelling units that have attached garages.

**Exception:** If a residence with an attached garage has a sealed door between the residence and the garage; and no fuel burning appliances in the residence, then carbon monoxide detection is not required within the residence.

**R322.2.1 Elevation Requirements-Amendatory.**

1. Buildings and structures shall have the lowest floors elevated to or at least one foot (1') above the design flood elevation.

2. In areas of shallow flooding (AO Zones), buildings and structures shall have the lowest floor (including a basement) elevated at least as high above the highest adjacent grade as the depth number specified in feet (mm) on the FIRM plus one foot (1'), or at least three feet (3') if a depth number is not specified.

3. Basement floors that are below grade on all sides shall be elevated to or at least one foot (1') above the design flood elevation.

**Exception:** Enclosed areas below the design flood elevation, including basements whose floors are not below grade on all sides, shall meet the requirements of Section R324.2.2 of this code.

4. Electrical systems, equipment and components, and heating, ventilation, air conditioning and plumbing appliances, plumbing fixtures, duct systems, and other service equipment shall be located at or least one foot (1') above the design flood elevation. If replaced as part of a substantial improvement, electrical systems, equipment and components, and heating, ventilation, air conditioning, and plumbing appliances, plumbing fixtures, duct systems, and other service equipment shall meet the requirements of this section. Systems, fixtures, and equipment and components shall not be mounted on or penetrate through walls intended to break away under flood loads.

**R323.1 General - Amendatory.** 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. In addition to other applicable requirements in this code, such storm shelters shall be constructed in accordance with ICC/NSSA-500 or FEMA 320 or other equivalent engineered system.

**R402.2 Concrete - Amendatory.** Concrete shall have a minimum specified compressive strength of  $f_c$ , as shown in Table R402.2. Concrete subject to moderate or severe weathering as indicated in Table R301.2 (1) shall be air entrained as specified in Table R402.2. The maximum weight of fly ash, other pozzolans, silica fume, slag or blended cements that is included in concrete mixtures for garage floor slabs and for exterior porches, carport slabs and steps that will be exposed to deicing chemicals shall not

exceed the percentages of the total weight of cementitious materials specified in Section 4.2.3 of ACI 318. Materials used to produce concrete and testing thereof shall comply with the applicable standards listed in Chapter 3 of ACI 318 or ACI 332.

**Exception:** Interior concrete slabs on grade and enclosed garage slabs are not required to be air entrained.

**R403.1.1.1 Reinforcement of Footings-Added.** A minimum of four (4) five-eighths inch (5/8") reinforcement bars shall be placed horizontally, two (2) at the top and two (2) at the bottom in each continuous footing. The continuous footing shall extend through garage door openings, unless otherwise specified on approved plans designed by an engineer.

**R403.1.1.2 Dowels in Footings-Added.** A minimum of one-half inch (1/2") dowels at four (4) feet on centers shall extend from three (3) inches above the bottom of the footing to within three inches (3") of the top of the stem wall and turn into the slab a minimum of twenty-four inches (24"), unless otherwise specified on approved plans. These dowels shall be on the job site at the time of the footing inspection.

**R403.1.6 Foundation anchorage. – Added.** Sill plates and walls supported directly on continuous foundations shall be anchored to the foundation in accordance with this section. Wood sole plates at all exterior walls on monolithic slabs, wood sole plates of *braced wallpanels* at building interiors on monolithic slabs and all wood sill plates shall be anchored to the foundation with anchor bolts spaced a maximum of 6 feet (1829 mm) on center. Bolts shall be at least 1/2 inch (12.7 mm) in diameter and shall extend a minimum of 7 inches (178 mm) into concrete or grouted cells of concrete masonry units. A nut and washer shall be tightened on each anchor bolt. There shall be a minimum of two bolts per plate section with one bolt located not more than 12 inches (305 mm) nor less than seven bolt diameters from each end of the plate section. Interior bearing wall sole plates on monolithic slab foundation that are not part of a *braced wallpanel* shall be positively anchored with *approved* fasteners. Sill plates and sole plates shall be protected against decay and termites where required by Sections R317 and R318. Cold-formed steel framing systems shall be fastened to wood sill plates or anchored directly to the foundation as required in Section R505.3.1 or R603.3.1.

**Exceptions:**

1. Foundation anchorage, spaced as required to provide equivalent anchorage to 1/r inch-diameter (12.7 mm) anchor bolts.
2. Walls 24 inches (610 mm) total length or shorter connecting offset *braced wall panels* shall be anchored to the foundation with a minimum of one anchor bolt located in the center third of the plate section and shall be attached to adjacent *braced wall panels* at corners as shown in Figure R602.10.4.4(1).
3. Connection of walls 12 inches (305 mm) total length or shorter connecting offset *braced wall panels* to the foundation without anchor bolts shall be

permitted. The wall shall be attached to adjacent *braced wall panels* at corners as shown in Figure R602.10.4.4 (1).

4. Wood sole plates of braced wall panels at building interiors on monolithic slabs may be anchored using connector(s) with a shear capacity of 2300 pounds and a tensile capacity of 800 pounds over a maximum span of 6 feet.

**R406.2 Concrete and masonry foundation waterproofing. – Added.** In areas where a high water table or other severe soil-water conditions are known to exist, exterior foundation walls that retain earth and enclose interior spaces and floors below *grade* shall be waterproofed from the top of the footing to the finished *grade*. Walls shall be waterproofed in accordance with one of the following:

1. Two-ply hot-mopped felts.
2. Fifty-five pound (25 kg) roll roofing.
3. Six-mil (0.15 mm) polyvinyl chloride.
4. Six-mil (0.15 mm) polyethylene.
5. Forty-mil (1 mm) polymer-modified asphalt.
6. Sixty-mil (1.5 mm) flexible polymer cement.
7. One-eighth inch (3 mm) cement-based, fiber-reinforced, waterproof coating.
8. Sixty-mil (0.22 mm) solvent-free liquid-applied synthetic rubber.
9. Bentonite

**Exception:** Organic-solvent-based products such as hydrocarbons, chlorinated hydrocarbons, ketones and esters shall not be used for ICF walls with expanded polystyrene form material. Use of plastic roofing cements, acrylic coatings, latex coatings, mortars and parings to seal ICF walls is permitted. Cold-setting asphalt or hot asphalt shall conform to type C of ASTM D 449. Hot asphalt shall be applied at a temperature of less than 200°F (93°C). All joints in membrane waterproofing shall be lapped and sealed with an adhesive compatible with the membrane.

**R506.2.3 Vapor retarder. – Added.** A 6 mil (0.006 inch; .1524 mm) polyethylene sheeting, other industry accepted vapor retarder products installed per manufacturer specifications or *approved vapor* retarder with joints lapped not less than 6 inches (152 mm) shall be placed between the concrete floor slab and the base course or the prepared subgrade where no base course exists.

Exception: The vapor retarder may be omitted:

1. From detached garages, utility buildings and other unheated *accessory structures*.
2. For unheated storage rooms having an area of less than 70 square feet (6.5 m<sup>2</sup>) and carports.
3. From driveways, walks, patios and other flatwork not likely to be enclosed and heated at a later date.
4. Where *approved* by the *building official*, based on local site conditions.

**R602.4 Interior load-bearing walls. – Added.** Interior load-bearing walls shall be constructed, framed and fireblocked as specified for exterior walls. Table R602.3(5) shall be used to establish stud spacing of walls up to 10 feet (3048 mm) high, and Table R602.3.1 shall apply to walls over 10 feet (3048 mm) high.

**R602.10.6 Braced wall panel connections. – Added.** *Braced wallpanels* shall be connected to floor framing or foundations as follows:

1. Where joists are perpendicular to a *braced wallpanel* above or below, a rim joist, band joist or blocking shall be provided along the entire length of the *braced wall panel* in accordance with Figure R602.10.6(1). Fastening of top and bottom wall plates to framing, rim joist, bandjoist *and/or* blocking shall be in accordance with Table R602.3(1).
2. Where joists are parallel to a *braced wallpanel* above or below, a rim joist, end joist or other parallel framing member shall be provided directly above and below the *braced wallpanel* in accordance with Figure R602.10.6 (2). Where a parallel framing member cannot be located directly above and below the panel, full-depth blocking at 16 inch (406 mm) spacing shall be provided between the parallel framing members to each side of the *braced wallpanel* in accordance with Figure R602.10.6(2). Fastening of blocking and wall plates shall be in accordance with Table R602.3 (1) and Figure R602.10.6(2).
3. Connections of *braced wall panels* to concrete or masonry shall be in accordance with Section R403.1 .6.
4. Wood sole plates of braced wall panels at building interiors on monolithic slabs may be anchored using connector(s) with a shear capacity of 2300 pounds and a tensile capacity of 800 pounds over a maximum span of 6 feet.

**R703.8 Flashing. – Added.** *Approved* corrosion-resistant flashing shall be applied shingle-fashion in a manner to prevent entry of water into the wall cavity or penetration of water to the building structural framing components. 6-mil polyethylene sheeting is an approved corrosion-resistant flashing when not exposed to UV rays. Self-adhered membranes used as flashing shall comply with AAMA 711. The flashing shall extend to the surface of the exterior wall finish. *Approved* corrosion-resistant flashings shall be installed at all of the following locations:

1. Exterior window and door openings. Flashing at exterior window and door openings shall extend to the surface of the exterior wall finish or to the water-resistive barrier for subsequent drainage.

**R801.3 Roof drainage. – Added.** ~~This section has been stricken from the code.~~

**R802.3 Framing details. – Added.** Rafters shall be framed to ridge board or to each other with a gusset plate as a tie. Ridge board shall be at least 1-inch (25 mm) nominal thickness and not less in depth than the cut end of the rafter. At all valleys and hips there shall be a valley or hip rafter not less than 2-inch (51 mm) 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. Definition of brace includes: 1. a triangular configuration of framing members with a horizontal tie and rafter members, and 2. king post or similar. Where the roof pitch is less than three units vertical in 12 units horizontal (25-percent slope), structural members that support rafters and ceiling joists, such as ridge beams, hips and valleys, shall be designed as beams.

**Exception:** The use of a "Blind Valley", also known as a "Farmers Valley" or "California Valley" will be allowed. In this type of valley the main roof is framed as usual, it may or may not be sheathed, and the intersecting roof is framed on top of the main roof. The two valley plates or sleeps lie on top of the main roof rafters or sheathing and provide a nailing base for the jack rafters and ridge board of the intersecting roof.

**R802.5.1 Purlins. – Added.** 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 2-inch by 4-inch (51 mm by 102 mm) 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 and the unbraced length of braces shall not exceed 8 feet (2438 mm).

**Exception:** Braces may be spaced not more than 6 feet (1829 mm) on center if:

1. The purlin brace is 2-inch by 6-inch (51 mm by 153 mm)
2. Purlins shall be sized one nominal size larger than the rafter they support, and
3. Unbraced length of braces shall not exceed 8 feet (2438 mm).

**N1101.9 Certificate. – Amended:** This section has been moved to the Appendix S of the IRC 2009 and is not adopted as a minimum standard of residential construction within the State of Oklahoma.

**N1102.4.3 Fireplaces. – Added.** New wood-burning fireplaces shall have gasketed doors and outdoor combustion air.

**N1103.1.1 Programmable thermostat. – Amended:** This section has been stricken from the code.

**N1103.2.2 Sealing. – Added.** Ducts, air handlers, filter boxes and building cavities used as ducts shall be sealed. Joints and seams shall comply with Section M1601.4. Duct tightness shall be verified by either of the following:

1. Post-construction test: Leakage to outdoors shall be less than or equal to 8 cfm (3.78 *Lis*) per 100 ft<sup>2</sup> (9.29m<sup>2</sup>) of conditioned floor area or a total leakage less than or equal to 12 cfm (5.66 *Lis*) per 100 ft<sup>2</sup> (9.29 m<sup>2</sup>) of conditioned floor area when tested at a pressure differential of 0.1 inch w.g. (25 Pa) across the entire system, including the manufacturer's

air handler end closure. All register boots shall be taped or otherwise sealed during the test.

2. Rough-in test: Total leakage shall be less than or equal to 6 cfm (2.83 *Lis*) per 100 ft<sup>2</sup> (9.29 m<sup>2</sup>) of conditioned floor area when tested at a pressure differential of 0.1 inch w.g. (25 Pa) across the roughed in system, including the manufacturer's air handler enclosure. All register boots shall be taped or otherwise sealed during the test. If the air handler is not installed at the time of the test, total leakage shall be less than or equal to 4 cfm (1.89 *Lis*) per 100 ft<sup>2</sup> (9.29 m<sup>2</sup>) of conditioned floor area.

**Exception:**

1. Duct tightness test is not required if the air handler and all ducts are located within *conditioned space*.
2. Visual inspection may be used instead of the rough-in test and post construction test.

**N1103.8.3 Pool covers. – Added.** Pools heated to more than 90 degrees Fahrenheit (32 degrees Celsius) shall have a pool cover with a minimum insulation value of R-12.

**N1104.1 Lighting equipment. – Added.** A minimum of 50 percent of the lamps in permanently installed lighting fixtures shall be *high-efficacy lamps*.

**Exception:** Can or recessed lights are exempt from this section of the code.

## PART V-MECHANICAL

**M1308.3 -Added.** Protection of refrigerant lines. -Added. Refrigerant lines shall not be installed less than four (4) inches from the bottom side of roof decking unless protected from damage by an approved method.

**M1502.3 Duct termination. – Added.** Exhaust ducts shall terminate on the outside of the building. Exhaust duct terminations shall be in accordance with the dryer manufacturer's installation instructions. If the manufacturer's instructions do not specify a termination location, the exhaust duct shall terminate not less than 3 feet (914 mm) in any direction from the openings into buildings. Exhaust duct terminations shall be equipped with a backdraft damper. Additionally, exhaust shall not terminate within 3 feet (914 mm) of condensing units. Screens shall not be installed at the duct termination.

## PART VI-FUEL GAS

**G2406.3 (303.6) Outdoor locations. – Added.** *Appliances* installed in outdoor locations shall be either listed for outdoor installation or provided with approved protection from outdoor environmental factors that influence the operability, durability and safety of the *appliance*.

**G2413.1 General Considerations.** -Amendatory. Piping systems shall be of such size and so installed as to provide a supply of gas sufficient to meet the maximum demand and supply gas to each appliance inlet at not less than the minimum supply pressure required by the appliance, but not less than 1" to the first connected appliance.

**Table G2413.4(3) [402.4(7)] Semi-rigid Copper Tubing – – Added.** This table has been stricken from the code.

**Table G2413.4(4) [402.4(10)] Semi-rigid Copper Tubing – – Added.** This table has been stricken from the code.

**G2414.5.2 (403.5.2) Copper tubing. – Added.** Copper tubing shall be prohibited for natural gas installations, but shall be allowed for liquefied petroleum gas installations.

**G2415.5.1 -Added.** Protection of gas piping other than steel. -Added. Gas piping other than steel shall not be installed less than four (4) inches from the bottom side of roof decking unless protected from damage by an approved method.

**G2415.10 Minimum Burial Depth** -Amendatory. Underground piping systems shall be installed a minimum depth of eighteen inches (18") below grade, except as provided for in Section G2415.10.1 of this code.

**G2417.7 (406.7) Purging. – Amended:** The International Code Council Emergency Amendment dated September 27, 2010 has been adopted. This amendment replaces in their entirety Section G2417.7 of the IRC 2009.

**G2417.7.1 (IFGS 406.7.1) – Added. Piping systems required to be purged outdoors.** The purging of piping systems shall be in accordance with the provisions of Sections 406.7.1.1 through 406.7.1.4 where the piping system meets either of the following:

1. The design operating gas pressure is greater than 2 psig.
2. The piping being purged contains one or more sections of pipe or tubing greater than 2 inches in nominal size and exceeding the lengths in Table 406.7.1.1.

**G2417.7.1.1 (IFGS 406.7.1.1) – Added. Removal from service.** Where existing gas piping is opened, the section that is opened shall be isolated from the gas supply and the line pressure vented in accordance with Section 406.7.1.3. Where gas piping meeting the criteria of Table 406.7.1.1 is removed from service, the residual fuel gas in the piping shall be displaced with an inert gas.

**Table G2417.7.1.1 – Added. (IFGS Table 406.7.1.1)**

<b><u>Size and Length of Piping</u></b>	
<b>Nominal Pipe Size (inches)</b>	<b>Length of Piping (feet)</b>
2 ½	> 50
3	> 30

4	> 15
6	> 10
8 or larger	Any length

For SI units: 1 inch = 25.4mm; 1 ft =304.8mm.

**G2417.7.1.2 (IFGS 406.7.1.2) Placing in operation. – Added.** Where gas piping containing air and meeting the criteria of Table 406.7.1.1 is placed in operation, the air in the piping shall first be displaced with an inert gas. The inert gas shall then be displaced with fuel gas in accordance with Section 406.7.1.3.

**G2417.7.1.3 (IFGS 406.7.1.3) Outdoor discharge of purged gases. – Added.** The open end of a piping system being pressure vented or purged shall discharge directly to an outdoor location. Purging operations shall comply with all of the following requirements:

1. The point of discharge shall be controlled with a shutoff valve.
2. The point of discharge shall be located at least 10 feet from sources of ignition, at least 10 feet from building openings and at least 25 feet from mechanical air intake openings.
3. During discharge, the open point of discharge shall be continuously attended and monitored with a combustible gas indicator that complies with Section 406.7.1.4.
4. Purging operations introducing fuel gas shall be stopped when 90% fuel gas by volume is detected within the pipe.
5. Persons not involved in the purging operations shall be evacuated from all areas within 10 ft of the point of discharge.

**G2417.7.1.4 (IFGS 406.7.1.4) Combustible gas indicator. – Added.** The combustible gas indicator used during purging operations shall be listed and shall be calibrated in accordance with the manufacturer's instructions and recommended schedule. The combustible gas indicator used for pipe discharge monitoring shall numerically display a volume scale from 0% to 100% with a resolution of not greater than 1% increments.

**G2417.7.2 (IFGS 406.7.20) Piping systems allowed to be purged indoors or outdoors. – Added.** The purging of piping systems shall be in accordance with the provisions of Section 406.7.2.1 where the piping system meets both of the following:

1. The design operating gas pressure is 2 psig or less.
2. The piping being purged is constructed entirely from pipe or tubing of 2 inch nominal size or smaller, or larger size pipe or tubing with lengths shorter than specified in Table 406.7.1.1.

**G2417.2.1 (IFGS 406.7.2.1) Purging procedure. – Added.** The piping system shall be purged in accordance with one or more of the following:

1. The piping shall be purged with fuel gas and shall discharge to the outdoors.
2. The piping shall be purged with fuel gas and shall discharge to the indoors or outdoors through an appliance burner not located in a combustion chamber. Such burner shall be provided with a continuous source of ignition.
3. The piping shall be purged with fuel gas and shall discharge to the indoors or outdoors through a burner that has a continuous source of ignition and that is designed for such purpose.
4. The piping shall be purged with fuel gas that is discharged to the indoors or outdoors, and the point of discharge shall be monitored with a listed combustible gas detector in accordance with 406.7.2.2. Purging shall be stopped when fuel gas is detected.
5. The piping shall be purged by the gas supplier in accordance with written procedures.

**G2417.7.2.2 (IFGS 406.7.2.2) Combustible gas detector. – Added.** The combustible gas detector used during purging operations shall be listed and shall be calibrated or tested in accordance with the manufacturer's instructions and recommended schedule. The combustible gas detector used for pipe discharge monitoring shall indicate the presence of fuel gas.

**G2417.7.3 (IFGS 406.7.3) Purging appliances and equipment. – Added.** After the piping system has been placed in operation, appliances and equipment shall be purged before being placed into operation.

## **PART VII-PLUMBING**

**P2503.4 Building sewer testing. – Added.** The *building sewer* shall be tested by insertion of a test plug at the point of connection with the public sewer and filling the *building sewer* with water, testing with not less than a 10-foot (3048 mm) head of water. The sewer shall maintain such pressure for 15 minutes.

**P2503.6 Shower liner test. – Added.** Where shower floors and receptors are made water tight by the application of materials required by Section P2709.2, the completed liner installation shall be tested at plumbing final. The pipe from the shower drain shall be plugged water tight for the test. The floor and receptor area shall be filled with potable water to a depth of not less than 2 inches (51 mm) measured at the threshold. Where a threshold of at least 2 inches high does not exist, a temporary threshold shall be constructed to retain the test water in the lined floor or receptor area to a level not less than 2 inches deep measured at the threshold. The water shall be retained for a test period of not less than 15 minutes and there shall be no evidence of leakage.

**P2503.7 Water-supply system testing. – Added.** 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.

**P2603.6.1 Sewer Depth – Added.** Building sewers that connect to private sewage disposal systems shall be a minimum of sixteen inches (16") below finished grade at the point of septic tank connection. Building sewers shall be a minimum of sixteen inches (16") below grade.

**P2704.1 General. – Added.** Slip joints shall be made with an *approved* elastomeric gasket and shall be installed from fixture to trap outlet. Fixtures with concealed slip-joint connections shall be provided with an access panel or utility space at least 12 inches (305 mm) in its smallest dimension or other *approved* arrangement so as to provide access to the slip connections for inspection and repair.

**P2709.2 Lining required. – Added.** Adjoining walls and floor framing which encloses on-site built-up shower receptors shall be lined with one of the following materials:

1. Sheet lead,
2. Sheet copper,
3. Plastic liner material that complies with ASTM D 4068 or ASTM D 4551,
4. Hot mopping in accordance with Section P2709.2.3 or
5. Sheet-applied load-bearing, bonded waterproof membranes that comply with ANSI A118.10.

The lining material shall extend not less than 3 inches (76 mm) beyond or around the rough jambs and not less than 3 inches (76 mm) above finished thresholds. Sheet-applied load bearing, bonded waterproof membranes shall be applied in accordance with the manufacturer's installation instructions.

**P2715.1 Laundry tray waste outlet. – Added.** Each compartment of a laundry tray shall be provided with a waste outlet not less than 1 ½ inches (38 mm) in diameter and a strainer or crossbar to restrict the clear opening of the waste outlet.

**P2801.5 Required pan. – Added.** Where tank type water heaters or hot water storage tanks are installed in locations where leakage of the tanks or connections will cause damage, the tank or water heater shall be installed in a galvanized steel pan having a material thickness of not less than 0.0236 inch (0.6010 mm) (No. 24 gage), or other pans *approved* for such use. Listed pans shall comply with CSA LC3.

**P2803.1 Relief valves required. – Added.** Tank type appliances and equipment used for heating water or storing hot water shall be protected by:

1. A separate pressure-relief valve and a separate temperature-relief valve; or
2. A combination pressure- and temperature-relief valve.

**P2902.5.3 Lawn irrigation systems. – Added.** The potable water supply to lawn irrigation systems shall be protected against backflow by an atmospheric-type vacuum breaker, a pressure-type vacuum breaker or a spill resistant backflow preventer. A valve shall not be installed downstream from an atmospheric vacuum breaker. Where chemicals are introduced into the system, the potable water supply shall be protected against backflow by a reduced pressure principle backflow preventer.

**P2903.8.6 Hose bibb bleed. – Added.** A *readily accessible* air bleed shall be installed in hose bibb supplies at the manifold or at the hose bibb exit point.

**P2903.9.1 Service valve. – Added.** 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.

**P2903.10 Hose bibb. – Added.** 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.

**P2904.1 General. – Added.** Where installed, residential fire sprinkler systems, or portions thereof, shall be in accordance with NFPA 13D.

**Sections P2904.1.1 — Added. (Stricken Sections)** Section P2904.8.2 Dwelling Unit Fire Sprinkler System Provisions and Certain Tables Stricken. Sections P2904.1.1 through Section P2904.8.2 and tables P2904.6.2(1) through P2904.6.2(9) have been stricken from the code.

**P2905.4 Water service pipe. – Added.** Water service pipe shall conform to NSF 61 and 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°Fahrenheit (1103 kPa at 23°Celsius). 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 at least 30 inches outside the exterior wall. Ductile iron water service piping shall be cement mortar lined in accordance with AWWA C104.

**Table P2905.4 Water Service Pipe**

MATERIAL	STANDARD
Acrylonitrile butadiene styrene (ABS) plastic pipe	ASTM D 1527; ASTM D 2282
Brass pipe	ASTM B 43

Chlorinated polyvinyl chloride (CPVC) plastic pipe	ASTM D 2846; ASTM F 441; ASTM F 442; CSA B137.6
Copper or copper-alloy pipe	ASTM B 42; ASTM B 302
Copper or copper-alloy tubing (Type K, WK, L, WL, M or WM)	ASTM B 75; ASTM B 88; ASTM B 251; ASTM B 447
Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX) pipe	ASTM F 1281; ASTM F 2262; CSA B137.10M
Cross-linked polyethylene/aluminum/high-density polyethylene (PEX-AL-HDPE)	ASTM F 1986
Cross-linked polyethylene (PEX) plastic tubing	ASTM F 876; ASTM F 877; CSA B137.5
Ductile iron water pipe	AWWA C151; AWWA C115
Galvanized steel pipe	ASTM A 53
Polyethylene/aluminum/polyethylene (PE-AL-PE) pipe	ASTM F 1282; CSA CAN/CSA-B137.9M
Polyethylene (PE) plastic pipe	ASTM D 2104; ASTM D 2239; CSA-B137.1
Polyethylene (PE) plastic tubing	ASTM D 2737; CSA B137.1
Polypropylene (PP) plastic pipe or tubing	ASTM F 2389; CSA B137.11
Polyvinyl chloride (PVC) plastic pipe	ASTM D 1785; ASTM D 2241; ASTM D 2672; CSA B137.3
Stainless steel (Type 304/304L) pipe	ASTM A 312; ASTM A 778
Stainless steel (Type 316/316L) pipe	ASTM A 312; ASTM A 778

**P3003.2 Prohibited joints. – Added.** Running threads and bands shall not be used in the drainage system. Drainage and vent piping shall not be drilled, tapped, burned or welded. The following types of joints and connections shall be prohibited:

1. Cement or concrete.
2. Mastic or hot-pour bituminous joints.
3. Joints made with fittings not *approved* for the specific installation.
4. Joints between different diameter pipes made with elastomeric rolling O-rings.
5. Solvent-cement joints between different types of plastic pipe.
6. Saddle-type fittings.

**Exception:** Saddle-type fittings may be used to connect the building sewer to a public sewer.

**P3005.2.10 Cleanout Equivalent -Amendatory.** A fixture trap or a fixture with integral trap, readily removable without disturbing concealed piping shall be acceptable as a cleanout equivalent.

**Exception:** A water closet shall not be used as a clean out.

**P3005.2.12 Cleanout Requirements for Residential Construction-Added.** All bathtub, lavatory, kitchen sink, mop or utility sink, and washing machine drains shall have an accessible cleanout which will allow for the cleaning or rodding of the drain line.

A. Cleanouts shall be the removable trap or threaded plug type, and shall be the same diameter or greater than the pipe served.

B. When two (2) drains are combined with a sanitary cross fitting, a threaded plug-type cleanout shall be installed immediately upstream of the sanitary cross fitting.

C. Shower drains with two (2) inch traps are not required to have a cleanout if the developed length of the shower drain is no more than ten (10) feet in length.

D. Besides the main cleanout for the building sewer located just outside and downstream of the residence, a second cleanout shall be located upstream of the first floor water closet plumbed the greatest distance from the point the building sewer leaves the residence. This cleanout shall be the same diameter as the pipe it serves and be located at ground level and within five (5) feet of the building, or in the outside wall no higher than two (2) feet above ground level.

**P3008.1 Sewage backflow. – Added.** Where the flood level rims of plumbing fixtures are below the elevation of the manhole cover of the next upstream manhole in the public sewer, the fixtures shall be protected by a backwater valve installed in the building drain, branch of the building drain or horizontal branch serving such fixtures.

**P3103.4 Prohibited use. – Added.** Vent terminals shall not be used as a flag pole or to support flag poles, TV aerials, or similar items.

## **PART VIII-ELECTRICAL**

**E3402.2 Penetrations of fire-resistance-rated assemblies. – Added.** Electrical installations in hollow spaces, vertical shafts and ventilation or air-handling ducts shall be made so that the possible spread of fire or products of combustion will not be substantially increased. Electrical penetrations through fire-resistance-rated walls, partitions, floors or ceilings shall be protected by approved methods to maintain the fire-resistance rating of the element penetrated. Penetrations of fire-resistance-rated walls shall be limited as specified in Section R302.4.1.

**E3403.3 Listing and labeling.– Added.** Electrical materials, components, devices, fixtures and equipment shall be listed for the application, in accordance with NFPA 70, shall bear the label of an approved agency and shall be installed, and used, or both, in accordance with the manufacturer's installation instructions.

**E3404.13 Electrical Fence Charger Systems Prohibited-Added.** The installation of an electrical fence charger system in areas zoned for residential use in the City of Tulsa, including insulators and wiring shall be unlawful and a misdemeanor offense.

**Exceptions:** Electrical fence chargers may be installed on:

1. A tract of land which is ten (10) or more acres, provided the system is not readily accessible to the public; or

2. A smaller tract, provided that the conductors are located a minimum of eight (8) feet above grade and are not readily accessible to the public.

**E3501.1 Scope. – Amendatory.** This chapter contains definitions that shall apply only to the electrical requirements of Chapters 34 through 43. Unless otherwise expressly stated, the following terms shall, for the purpose of this code, have the meanings indicated in this chapter. Words used in the present tense include the future; the singular number includes the plural and the plural the singular. Where terms are not defined in this section and are defined in Section R202 of this code, such terms shall have the meanings ascribed to them in that section. Where terms are not defined in these sections, they shall have their ordinarily accepted meanings or such as the context implies.

**ELECTRICAL FENCE CHARGER SYSTEM.** A labeled circuit arrangement, whether energized by a battery or other electrical power source, which does or is designed or intended to impart an electrical shock to any person or animal coming in contact with such un-insulated conductors.

**UNFINISHED ROOM.** A room having either the floor decking or heating/air-conditioning not installed.

**E3604.3 Point of Attachment. - Amendatory.** The point of the overhead service entrance and attachment to the electric utility company's service wires on a building shall be a minimum of ten (10) feet above finished grade.

**Exception:** For existing structures with new overhead services, the point of attachment shall be nine (9) feet above the ground; and clearances shall be provided as required by the National Electrical Code.

**E3604.5 Service masts as supports. -Amendatory.** Where a service mast is used for the support of service-drop conductors, it shall be of adequate strength or be supported by braces or guys to withstand the strain imposed by the service drop. Where raceway-type service masts are used, all equipment shall be approved. Only power service drop conductors shall be permitted to be attached to a service mast. The minimum size of rigid metal conduit (RMC) shall be two inches for services up to and including 200 amperes, and two-and-a-half inches for services over 200 amperes.

**E3702.3.1 Residential Installation-Added.** In residences there shall be no more than a combination of eight (8) luminaries and receptacle outlets placed on a 15 ampere branch circuit, and no more than ten (10) luminaire and receptacle outlets placed on a 20 ampere branch circuit.

**E3901.1.1 Unfinished Rooms-Added.** Unfinished rooms located within new dwellings are not required to comply with this code as to the number and placement of receptacles and luminaries.

**E4002.14 Tamper-resistant receptacles. – Added.** In areas specified in Section E3901.1, 125-volt, 15- and 20-ampere receptacles shall be listed tamper-resistant receptacles.

**Exceptions:**

- (A) Receptacles in the following locations shall not be required to be tamper-resistant:
  - (i) Receptacles located more than 5 1/2 feet (1.7m) above the floor.
  - (ii) Receptacles that are part of a luminaire or appliance.
  - (iii) 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.
  - (iv) Non-grounding receptacles used for replacement

**E4003.12.1 Luminaires in Dwelling Unit Dressing Rooms –Added.**

The dressing room is a room designed for the purpose of storage of clothing, which permits incandescent luminaires with open or partially enclosed lamps and pendant luminaires or lampholders when the dressing room shall have a distance of fifty-four (54) inches or greater from the sides and back of the closet walls, respectively, and continuing vertically to the closet ceiling parallel to the walls at a horizontal distance of the same. The dressing room may have incandescent luminaires with open or partially enclosed lamps and pendant light fixtures where the distance to the combustibles in any configuration is thirty (30) inches or greater to the nearest edge of the luminaire.

**SECTION 202. PROTECTION OF EXISTING RIGHTS AND REMEDIES**

Nothing in this chapter shall be construed to affect any suit or proceeding pending in any court, or any rights acquitted, or liability incurred, or any cause or causes of action acquired or existing under any act or provision hereby repealed; nor shall this chapter require any changes in work which has been lawfully authorized prior to the adoption of this chapter, so long as such work is actually commenced within sixty (60) days after its adoption.”

*Section 2. SEVERABILITY CLAUSE. If any section, sentence, clause or phrase of this ordinance or any part thereof is for any reason found to be invalid by a court of competent jurisdiction, such decision shall not affect the validity of the remainder of this ordinance or any part thereof.*

*Section 3. OPERATIVE CLAUSE. Following passage of this ordinance by the City Council, with separate approval of its Emergency Clause; approval by the Mayor; and publication, this ordinance shall be operative on and after XXXXX, 2011.*

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Section 4. EMERGENCY CLAUSE. That an emergency is now declared to exist for the preservation of the public peace, health and safety, by reason whereof this ordinance shall take effect immediately from and after its passage, approval and publication.

ADOPTED by the Council: SEP 29 2011  
Date

[Signature]  
Chairman of the Council

ADOPTED as an emergency measure: SEP 29 2011  
Date

[Signature]  
Chairman of the Council

OFFICE OF THE MAYOR

Received by the Mayor: \_\_\_\_\_, at \_\_\_\_\_  
Date Time

Dewey F. Bartlett, Jr., Mayor

By \_\_\_\_\_  
Secretary

APPROVED by the Mayor of the City of Tulsa, Oklahoma: OCT 05 2011  
Date

at \_\_\_\_\_  
Time



[Signature]  
Mayor

(Seal)  
ATTEST:

[Signature]  
City Clerk **DEPUTY**

APPROVED AS TO FORM AND LEGALITY:

\_\_\_\_\_  
City Attorney

CITY CLERK  
DEPUTY  
OCT 30 4 02 PM  
CITY OF TULSA  
OKLAHOMA