AN ORDINANCE 2015-01-29-0066

AMENDING CHAPTER 10 OF THE CITY CODE OF SAN ANTONIO, ENTITLED "BUILDING-RELATED CODES OF THE CITY OF SAN ANTONIO" BY REVISING ADMINSTRATIVE PROCEDURES, ADOPTING 2015 EDITIONS OF THE ICC BUILDING-RELATED CODES, 2014 NEC CODE, AND THEIR RESPECTIVE LOCAL AMENDMENTS, APPLYING ADMINISTRATIVE CLARIFICATION AND STREAMLINING EFFORTS AND PROVIDING FOR PENALTIES, PUBLICATION AND EFFECTIVE DATES.

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WHEREAS, the Building-Related and Fire Codes Appeals and Advisory Board is charged with reviewing and making recommendations on nationally recognized building-related codes following publication upon request by the Building Official or Fire Chief; and

WHEREAS, the Development Services Department, as part of the triennial review process for technical construction code adoption and amendment, took proposed technical construction code adoptions and modifications through the Building-Related and Fire Codes Appeals and Advisory Board's various subcommittees for evaluation, input and any recommended revisions; and

WHEREAS, the results of these reviews were forwarded to the full Building-Related and Fire Codes Appeals and Advisory Board where public meetings were conducted regarding the 2015 editions of the International Building Code, International Residential Code for One-and Two-Family Dwellings, International Mechanical Code, International Plumbing Code, International Existing Building Code, International Fuel Gas Code, International Fire Code, International Energy Conservation Code and the 2014 edition of the National Electrical Code, and their respective local amendments; and

WHEREAS, the Building-Related and Fire Codes Appeals and Advisory Board recommended approval and adoption of the aforementioned codes and local amendments; and

WHEREAS, as part of the review process, the Development Services Department appeared before the Infrastructure and Growth Committee for review, receiving recommendation to proceed to City Council for consideration and possible adoption; and

WHEREAS, all statutory and Charter prerequisites for adoption of the various codes and local amendments have been satisfied; **NOW THEREFORE:**

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF SAN ANTONIO:

SECTION 1. Chapter 10, "Building-related Codes of the City of San Antonio" is hereby amended to revise various administrative provisions and reflect adoption of the 2015 editions of the International Building Code, the International Residential Code for One-and Two-Family Dwellings, the International Plumbing Code, the International Mechanical Code, the International Existing Building Code, the

International Fuel Gas Code, the International Energy Conservation Code, the 2014 National Electrical Code and their respective local amendments, and identified more specifically below for the City of San Antonio. Three copies of these codes and local amendments are filed in the office of the City Clerk, pursuant to section 17 of the Charter for permanent record and inspection. Alterations are shown as underlined text and deletions shown as bracketed [~~strikethroughs~~].

SECTION 2. Chapter 10, section 10-2, Purpose and scope of chapter; referenced codes, subsections (c), (c)(1), Exceptions a., b., (2)-(6) are amended and (7)-(9) are added to read as follows:

Sec. 10-2. Purpose and scope of chapter; referenced codes.

(c) ***Referenced codes***. The other codes and standards listed in subsections (1) through (6) and referenced elsewhere in this chapter are considered part of the requirements of this chapter to the prescribed extent of each such reference. See Article II through Article XI of this chapter.

(1) ***Building***. The *provisions* of the International Building Code, as amended in article III, apply to the construction, design, erection, installation, alteration, addition, removal, demolition, replacement, repair, location, relocation, land disturbance, moving, quality of materials, or use and occupancy of every building or structure or any appurtenances connected or attached to such buildings or structures. [~~See Article II through Article IX of this chapter.~~]

Exceptions:

a. Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three (3) stories above grade plane in height with a separate means of egress and their accessory structures not more than three stories above grade plane in height shall comply with the International Residential Code, as amended in [~~. See~~] Article IV of this chapter.

b. Existing build***ings and st***ructures undergoing repair, alteration, change of occupancy, addition and/or relocation of existing buildings shall be permitted to comply with the International Existing Building Code, as amended in [~~. See~~] Article V of this chapter.

(2) ***Electrical***. The provisions of the National Electrical Code, as amended in Article VI of this chapter, shall apply to the installation of electrical systems, including alterations, repairs, replacement, equipment, appliances, fixtures, fittings and appurtenances thereto. [~~See Article VI of this chapter.~~]

(3) ***Mechanical***. The provisions of the International Mechanical Code, as amended in Article VII of this chapter, shall apply to the installation, alterations, repairs, and replacement of mechanical systems, including equipment, appliances, fixtures,

fittings and/or appurtenances, including ventilating, heating, cooling, air conditioning and refrigeration systems, incinerators, and other energy-related systems. [~~See Article VII of this chapter.~~]

(4) ***Gas***. The provisions of the International Fuel Gas Code, as amended in Article VIII of this chapter, shall apply to the installation of fuel gas piping from point of delivery, fuel gas appliances, gaseous hydrogen systems and related accessories as covered in this Code. These requirements apply to fuel gas piping systems extending from the point of delivery to the inlet connections of appliances and the installation and operation of gas appliances and related accessories. Piping system requirements shall include design, materials, components, fabrication, assembly, installation, testing, inspection and operation and maintenance. [~~See Article VIII of this chapter.~~]

(5) ***Plumbing***. The provisions of the International Plumbing Code, as amended in Article IX of this chapter, shall apply to the installation, alteration, repair, relocation, addition to, use or maintenance and replacement of plumbing systems, including equipment, appliances, fixtures and fittings and appurtenances. The code shall also regulate nonflammable medical gas, inhalation anesthetic, vacuum piping, nonmedical oxygen systems and sanitary and condensate vacuum collection systems. [~~See Article IX of this chapter.~~]

(6) ***Energy***. The provisions of the International Energy Conservation Code, as amended in Article X of this chapter, shall apply to all matters governing the design and construction of buildings for energy efficiency. [~~See Article X of this chapter.~~]

(7) ***Property Maintenance***. The provisions of the San Antonio Property Maintenance Code shall apply to existing structures and premises; equipment and facilities; light, ventilation, space heating, sanitation, life and fire safety hazards; responsibilities of owners, operators and occupants, and occupancy of existing premises and structures.

(8) ***Fire Prevention***. The provisions of the *International Fire Code*, as amended in City Code Chapter 11, shall apply to matters affecting or relating to structures, processes and premises from the hazard of fire and explosion arising from the storage, handling or use of structures, materials or devices; from conditions hazardous to life, property or public welfare in the occupancy of structures or premises; and from the construction, extension, repair, alteration or removal of fire suppression, automatic sprinkler systems and alarm systems or fire hazards in the structure or on the premises from occupancy or operation.

(9) ***Existing Buildings***. The provisions of the International Existing Building Code, as amended in article V of this chapter, shall apply to matters governing the repair, alteration, change of occupancy, addition to and relocation of existing buildings.

SECTION 3. Chapter 10, section 10-3, Applicability, subsection (f) is amended to clarify the 2015 San Antonio Property Maintenance Code and delete "deemed necessary" language and adds subsections (f)(i) and (f)(ii) to read as follows:

Sec. 10-3. Applicability.

(f) ***Existing structures***. The legal occupancy of any structure existing on the date of adoption of this chapter shall be permitted to continue without change, except as specifically covered in this chapter, the 2015 [~~2009~~] San Antonio Property Maintenance Code or the International Fire Code, as amended[~~, or as is deemed necessary to the *Building Official* for the general safety and welfare of the occupants and the public~~].

i. ***Buildings not previously occupied***. A building or portion of a building that has not been previously occupied or used for its intended purpose in accordance with the laws in existence at the time of its completion shall comply with the provisions of the International Building Code, as amended, or International Residential Code, as applicable, for new construction or with any current permit for such occupancy.

ii. ***Building previously occupied***. The legal occupancy of any building existing on the date of adoption of this chapter shall be permitted to continue without change, except as otherwise specifically provided in this chapter, the International Fire code,or the 2015 San Antonio Property Maintenance Code, or as deemed necessary by the *Building Official* for the general safety and welfare of the occupants and the public.

SECTION 4. Chapter 10, section 10-5, Duties and powers of Building Official, subsections (k), (m) and (n) General, are amended to read as follows:

Sec. 10-5. Duties and powers of Building Official.

(k) ***Liability***. The *Building Official*, members and alternate members of the building-related and fire codes board of appeals, or employees charged with enforcement of this chapter, while acting for the city in good faith and without malice in the discharge of the duties required by this chapter or other pertinent law or ordinance, are not civilly or criminally rendered liable personally and are relieved from personal liability for any damage accruing to persons or property as a result of any act, or by reason of an act or omission in the discharge of official duties. Any suit or criminal complaint instituted against an officer or employee because of an act performed by that officer or employee in the lawful discharge of duties and under the provisions of this chapter shall be defended by legal representative of the city until the final termination of the proceedings. The *Building Official* or any subordinate shall not be liable for cost in any action, suit or proceeding that is instituted in pursuance of the provisions of this chapter.

(l) ***Approved materials and equipment***. Materials, equipment and devices approved by the *Building Official* shall be constructed and installed in accordance with such approval.

(1) ***Appliance and fixture listing***. Appliances and fixtures shall be tested and listed in published reports by approved agencies and shall be installed in accordance with all instructions included as part of such listing.

(2) ***Used materials and equipment***. The use of used materials which meet the requirements of this chapter for new materials is permitted. Used equipment and devices shall not be reused unless approved by the *Building Official*.

(m) ***Modifications***. Whenever there are practical difficulties involved in carrying out the provisions of this chapter, the *Building Official* has the authority to grant modifications for individual cases, upon application of the owner or owner's authorized representative, providing the *Building Official* first finds that special individual reason makes the strict letter of this chapter impractical, and the modification is in compliance with the intent and purpose of this chapter, and that such modification does not lessen health, accessibility, life and fire safety, or structural requirements. The details of action granting modifications shall be recorded and entered in the files of the department of development services.

(n) ***Alternative materials, design and methods of construction and equipment***. The provisions of this chapter are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this chapter, provided that any such alternative has been approved. An alternative material, design or method of construction shall be approved where the *Building Official* finds that the proposed design is satisfactory and complies with the intent of the provisions of this chapter, and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this chapter in qualify, strength, effectiveness, fire resistance, durability and safety. Where the alternative material, design or method of construction is not approved, the *Building Official* shall respond in writing, stating the reasons why the alternative was not approved.

(1) ***Research reports***. Supporting data, where necessary to assist in the approval of materials or assemblies not specifically provided for in this chapter, shall consist of valid research reports from approved sources.

(2) ***Tests***. Whenever there is insufficient evidence of compliance with the provisions of this chapter, or evidence that a material or method does not conform to the requirements of this chapter, or in order to substantiate claims for alternative materials or methods, the *Building Official* has the authority to require tests as evidence of compliance to be made at no expense to the city. Test methods shall be as specified in this chapter or by other recognized test standards. In the absence of recognized and accepted test methods, the *Building Official* shall approve the testing procedures. Testing shall be performed by an approved agency. Reports of such tests shall be retained by the *Building Official* for the period required for retention of public records.

SECTION 5. Chapter 10, section 10-6, Permits, subsection (a), *Required,* is amended to clarify the location of Chapter 28; subsection (e) *Work exempt from permit*, Building, (1) and (4) are amended to increase the floor area and means of measuring height, respectively; subsection (e) *Work exempt from permit*, Building, is also amended by adding a new (15); subsection (e) *Work exempt from permit*, Plumbing, is amended by deleting the exception; subsection (j) *Authorization to obtain plumbing permits, (3) and (7) are amended to clarify who is authorized to pull permits and removing the limitation, respectively, and a new (8) is added as follows:*

Sec. 10-6. Permits.

(a) ***Required***. Any owner or authorized agent who intends to construct, enlarge, alter, repair, move, demolish, or change the occupancy of a building or structure, to include a sign or billboard, or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by this chapter, who performs site work or causes any such work to be done, shall first make application to the *Building Official* and obtain the required permit. See Chapter 28 of the City Code [~~,San Antonio Code,~~] for additional permit requirements for signs and billboards.

(e) ***Work exempt from permit***. Exemptions from permit requirements of this chapter shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this chapter or any other laws or ordinances of the city. Permits shall not be required for the following:

Building:

(1) One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed three hundred (300) [~~one hundred twenty (120)~~] square feet (11 m^2).

(4) Retaining walls that are not over four (4) feet (1219 mm) in height measured from the grade level at the front of the wall [~~bottom of the footing~~] to the top of the wall, unless supporting a surcharge or impounding Class I, II or IIIA liquids.

(15) Decks accessory to one-and two family dwellings not exceeding 300 square feet in area, that are not more than 30 inches above grade at any point, are not attached to a dwelling and do not serve a required exit door.

Plumbing:

[~~Exemption from the permit requirements of this chapter shall not be deemed to grant authorization for work conducted in violation of the provisions of this chapter and other laws and ordinances of the city.~~]

(j) ***Authorization to obtain plumbing permits***. The following lists those individuals, contractors and *companies* that are authorized to obtain plumbing permits:

(3) (TCEQ) 30 TAC 344 Licensed irrigators, who have a state irrigators license, for the installation of backflow devices for irrigation systems.

(7) Gas work performed by a certified LP gas installer licensed under V.T.C.A., Natural Resources Code ch. 113.[~~, as amended (limited to underground service piping from the tank to the building or pool heater).~~]

(8) (OSSF) On-site Sewage Facility companies that hold an (OSSF Installer I or Installer II) Texas Commission of Environmental Quality (TCEQ) license for installation of (OSSF) On-Site Sewage Facilities and associated equipment, to secure a Sewer Permit to install the Sewer line from the building drain to the OSSF tank.

SECTION 6. Chapter 10, section 10-8, Submittal documents, subsection (c)(4)a. General, is amended to expand authorization to act to the owner's authorized agent to read as follows:

Sec. 10-8. Submittal documents.

(c) ***Examination of documents.*** The *Building Official* shall examine or cause to be examined the accompanying submittal documents and shall ascertain by such examinations whether the construction indicated and described is in accordance with the requirements of this chapter and other pertinent laws or ordinances.

(4) ***Design professional in responsible charge.***

a. ***General.*** When documents are required to be prepared by a registered design professional, the owner or the owner's authorized agent shall engage and designate on the building permit application a registered design professional to act as the registered design professional in responsible charge. If the circumstances require, the owner or the owner's authorized agent shall designate a substitute registered design professional who shall perform the duties required of the original registered design professional in responsible charge. The *Building Official* shall be notified in writing by the owner or the owner's authorized agent if the registered design professional in responsible charge is changed or is unable to continue to perform the duties.

The registered design professional in responsible charge shall be responsible for reviewing and coordinating submittal documents prepared by others, including phased and deferred submittal items, for compatibility with the design of the building.

SECTION 7. Chapter 10, section 10-11, Inspections and testing, subsections (c)(6) and (c)(10) is amended to read as follows:

Sec. 10-11. Inspections and testing.

(c) ***Required inspections and tests***. The *Building Official*, upon notification, shall make the inspections and tests set forth in paragraphs (1) through (13).

(6) ***Duct test for one- and two-family dwellings and townhomes***. All ducts for one- and two-family dwellings as well as townhomes, in unconditioned spaces, shall be duct tested prior to covering or concealment to disclose leaks and defects. Tests shall be made by an independent certified RESNET energy rater or an alternative approved by the *Building Official* using objective, verifiable testing criteria and results provided to the *Building Official*. Apparatus, material and labor required for testing a mechanical system shall be furnished by the independent certified RESNET energy rater or *Building Official* approved alternate. Where any work or installation does not pass an initial test or inspection, the necessary corrections shall be made to achieve compliance with this chapter. The work or installation shall then be re-submitted to the *Building Official* for inspection and testing. See also Section 403.3.3 [~~403.2.2~~] of the 2015 [~~2009~~] IECC, as amended.

(10) ***Energy efficiency inspections***. Inspections shall be made to determine compliance with Chapter 4(RE) [~~four~~] of the 2015 [~~2009~~] IECC for detached one- and two-family dwellings and [~~for~~] multiple single-family dwellings (townhomes) as well as Group R-2, R-3 and R-4 buildings three stories or less in height above grade plane, and Chapter 4(CE) [~~five~~] of the 2015 [~~2009~~] IECC for all other occupancies, as amended, and shall include, but not be limited to, inspections for: envelope insulation R- and U-values, fenestration U-value, duct system R-value, and HVAC and water-heating equipment efficiency. For detached one and two-family dwellings and multiple single-family dwellings (townhomes) as well as Group R-2, R-3 and R-4 buildings three stories or less in height above grade plane, an independent certified RESNET energy rater or an alternative approved by the *Building Official* using objective, verifiable testing criteria, shall test and [~~or~~] inspect the air barrier as per Section R402.4 Air leakage [~~402.4.2 Air sealing and insulation~~], of the 2015 [~~2009~~] IECC. The results must be submitted on a form approved by the *Building Official*. The form shall show that construction is in compliance with the 2015 [~~2009~~] IECC.

SECTION 8. Chapter 10, section 10-12, Certificate of occupancy, subsections (a) and (b)(3) is amended to read as follows:

Sec. 10-12. Certificate of occupancy.

(a) ***Use and occupancy***. No building or structure shall be used or occupied, and no change in the existing use or occupancy classification of a building or structure or portion thereof shall be made, until the *Building Official* has issued a certificate of occupancy therefor as provided herein. Issuance of a certificate of occupancy shall not be construed as an approval if a violation of the provisions of this chapter or of other ordinances of the city.

Exception: Certificates of occupancy are not required for work exempt from permits under subsection 10-6(d).

(b) ***Certificate issued***. After the *Building Official* inspects the building or structure and finds no violations of the provisions of this chapter or other laws that are enforced by the department, the *Building Official* shall issue a certificate of occupancy that contains the following:

(3) The name and address of the owner or the owner's authorized agent.

SECTION 9. Chapter 10, section 10-13, Service utilities, is amended by adding a new subsection (b) *Temporary connection*; altering new (c), *Authority to disconnect service utilities*, to eliminate a risk to life or property or with unauthorized connections, and relettering subsections to read as follows:

Sec. 10-13. Service utilities.

(b) ***Temporary connection***. The *Building Official* shall have the authority to authorize the temporary connection of the building or system to the utility source of energy, fuel or power.

(c) [~~(b)~~] ***Authority to disconnect service utilities***. The *Building Official* has the authority to authorize disconnection of utility service to the building, structure or system regulated by the referenced codes and standards of subsection *10-2(c)* of this chapter [~~in case of emergency where necessary~~] to eliminate a [~~an immediate hazard~~] risk to life or property or when such utility connection has been made without the required authorization. [~~approval required by subsection (a) or (b).~~] The *Building Official* shall notify the serving utility, and wherever possible the owner and occupant of the building, structure or service system of the decision to disconnect prior to taking such action. If not notified prior to disconnecting, the ow*ner or occupant o*f the building, structure or service system shall be notified in writing, as soon as practical thereafter.

(d) [~~(c)~~] ***Connection after order to disconnect***. A person shall not make utility service or energy source connections to systems regulated by this Code which have been disconnected or ordered to be disconnected by the code official or the use of which has been ordered to be discontinued by the code official until the code official authorizes the reconnection and use of such systems.

(e) [~~(d)~~] ***Changing location of electric meters***. If alterations of the building, dwelling, structure or wiring require changes in the location or size of the electric meter/service equipment, a licensed electrical contractor with the city shall acquire a permit for the work to be performed and coordinate the disconnecting and reconnecting of service with the utility.

(f) [~~(e)~~] ***Emergencies***. Where life or property may be in danger, a licensed electrical contractor with the city may disconnect the electric service to the building, dwelling or structure and shall immediately notify the utility.

(g) [~~(f)~~] ***Utility company rules***. The latest edition of the CPS Energy publication, "Electrical Service Standards," as approved by the *Building Official* and adopted by city council, is

hereby incorporated and made a part of this chapter for all electric services and meter installations. All other wiring, either public or private, shall conform to this chapter.

SECTION 10. Chapter 10, section 10-14, *Building-related and fire codes appeals and advisory board*, subsections (d)(1)(2), (f), and (h) are all amended to read as follows:

Sec. 10-14. Building-related and fire codes appeals and advisory board.

(d) ***Committees***. The appeals and advisory board may form committees to advise it on specific matters. Prior to conducting public hearings on any of the nationally recognized building-related codes and any associated amendments thereto, the appeals and advisory board shall form code review committees and shall select a chairman for such committee. The purpose of code review committees is to review the newly published codes and to receive public comments on these codes and their associated amendments. The *Building Official* will provide appropriate staff support to all such committees. The chairman of each code review committee shall report his committee recommendations to the appeals and advisory board during the subsequent public hearings conducted by the board on these codes.

(1) ***Committee membership***. Committee membership shall consist of appointed members or their appointed alternates, should the member not be present, and may also consist of not more than four (4) individuals who are not appointed by the mayor and city council and who are not required to reside in the city. A committee is required to have at least four (4) appointed members or their appointed alternates. Both the primary board member and alternate board member for any category may serve on a committee, but only one category member, primary or alternate, may serve as a voting member on the committee. Committees shall have not more than seven (7) primary and alternate board members. Any board member may sit on a committee as an ex-officio member, but shall not be counted as part of the quorum or be authorized to vote.

(2) ***Committee quorum and voting.*** *A* majority of the appointed members or their appointed alternates, should the member not be present, of the committee shall constitute a quorum. Only committee members who are appeals and advisory board members or their alternates, should the member not be present, shall be allowed to vote on committee items. Committee members not appointed by the mayor and city council to the appeals and advisory board, as either a member or alternate member, may not vote on committee matters, and shall not be counted in the quorum. A majority of committee members authorized to vote shall be required.

(f) ***Open hearing and meeting***. All hearings and meetings of the appeals and advisory board shall be open to the public, and subject to the Texas Public Meetings Act. The appellant, the appellant's representative, the *Building Official, the Fire Chief,* and any person whose interests are affected shall be given equal opportunity to be heard.

(g) ***Appeals and advisory board decision on appeals***. A concurring vote of the majority of appointed members present once a quorum is established is required in order for the appeals and advisory board to modify or reverse the decision of the *Building Official* or fire chief.

(1) ***Resolution***. The decision of the appeals and advisory board shall be by resolution. Certified copies, signed by the chairman of the appeals and advisory board, shall be furnished to the appellant and to the *Building Official* and fire chief.

(2) ***Administration***. The *Building Official* and fire chief shall take immediate action in accordance with the decision of the appeals and advisory board.

(h) ***Board [~~Appeal of board~~] of appeals action***. Any action taken by the building-related and fire codes board of appeals is final. [~~may be appealed by written petition for a hearing before the mayor and city council. Such petition must be filed with the city clerk within seven (7) days from the receipt of board's action by certified mail and accompanied by a filing fee as set forth in the fee schedule adopted by the city.~~]

SECTION 11. Chapter 10, section 10-17, Unsafe structures and equipment, (e) *Restoration*, is amended to read as follows:

Sec. 10-17. Unsafe structures and equipment.

(e) ***Restoration***. The structure or equipment determined to be unsafe by the *Building Official* is permitted to be restored to a safe condition. To the extent that repairs, alterations or additions are made or a change of occupancy occurs during the restoration of the structure, such repairs, alterations, additions or change of occupancy shall comply with subsection 10-2(c) of this chapter [~~10-26(d) and Chapter 34 of the IBC~~].

SECTION 12. Chapter 10, section 10-25, Non-referenced definitions, is amended to reflect additions and deletions as follows:

Sec. 10-25. Non-referenced definitions. The following definitions are in addition to or supersede those listed in the referenced model codes of this chapter:

[~~**ENERGY STAR CERTIFIED ROOF**. See Section 1502.1. Sec. 10-26.~~]

FIRE CHIEF. The chief officer of the San Antonio Fire Department [~~fire department serving the jurisdiction,~~] or a duly authorized representative.

IBC. *International Building Code*, 2015 [~~2012~~] edition, as amended by the city.

IEBC. *International Existing Building Code*, 2015 [~~2012~~] edition, as amended by the city.

IECC. *International Energy Conservation Code*, 2015 [~~2009~~] edition, as amended by the city.

IFC. *International Fire Code*, 2015 [~~2012~~] edition, as amended by the city.

IFGC. *International Fuel Gas Code*, 2015 [~~2012~~] edition, as amended by the city.

IMC. *International Mechanical Code*, 2015 [~~2012~~] edition, as amended by the city.

IPC. *International Plumbing Code*, 2015 [~~2012~~] edition, as amended by the city.

IRC. *International Residential Code*, 2015 [~~2012~~] edition, as amended by the city.

Irrigation contractor. A person licensed under V.T.C.A., Water Code ch. 37 and V.T.C.A., Occupations Code ch. 1903 [~~Chapter 37 of the Texas Water Code and Chapter 1903 of the Texas Occupations Code~~].

NEC. National Electrical Code, NFPA 70, 2014 edition, as amended by article VI of this chapter.

NFPA 70. National Electrical Code, NFPA 70, 2014 edition, as amended by Article VI of this chapter.

SECTION 13. Chapter 10, section 10-29, Adoption of International Building Code (2012), is repealed and a new section 10-29, Adoption of International Building Code (2015), is written in its place as follows:

Sec. 10-29. Adoption of International Building Code (2015).

The 2015 edition of the International Building Code, promulgated by the International Code Council, Chapters 2 through 35, and Appendix H is hereby adopted and incorporated in this article by reference as if fully set forth, except as it is amended by the following provisions of section 10-30. Provisions of this article are in addition to the provisions of the International Building Code. The following provisions coinciding with the provisions of the International Building Code supersede, repeal, or delete, when indicated, the corresponding provisions of the International Building Code.

All references within the model codes to any building, electrical, fuel gas, mechanical, plumbing, energy conservation, or existing building code shall be construed to be a reference to the respective building, electrical, fuel gas, mechanical, plumbing, energy conservation, or existing building code specifically adopted by reference in articles II through X of this chapter.

SECTION 14. Chapter 10, section 10-30, Amendments to the adopted chapters of the International Building Code (2012), is repealed and a new section 10-30, Amendments to the adopted chapters of the International Building Code (2015) is written in its place with additions shown as underlined text and deletions shown as bracketed [~~strikethroughs~~].

Sec. 10-30. Amendments to the adopted chapters of the International Building Code (2015)

Chapter 2, DEFINITIONS, is amended for SPECIAL INSPECTOR to read as follows:

[BS] SPECIAL INSPECTOR. A qualified person employed or retained by an *approved agency* who shall prove to the satisfaction of the *registered design professional in responsible charge* and [~~*approved* by~~] the *Building Official* [~~*building official*~~] that he/she has [~~*as having*~~] the competence necessary to inspect a particular type of construction requiring *special inspection*.

SECTION 304, BUSINESS GROUP B, is amended by adding Fire Stations in the group as follows with remaining text to remain as written:

304.1 Business Group B. Business Group B occupancy includes, among others, the use of a building or structure, or a portion thereof, for office, professional or service-type transactions, including storage of records and accounts. Business occupancies shall include, but not be limited to, the following:

Fire stations (including the dormitory, apparatus bays, living and offices areas) if installed with an automatic smoke detection system in accordance with 907.2.10.2 and smoke alarms installed in accordance with 907.2.11.2 through 907.2.11.4.

Section 310.5, Residential Group R-3, is amended by adding Foster Care Family Homes to the group as follows with remaining text to remain as written:

310.5 Residential Group R-3. Residential occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-4 or I, including:

Foster Care Family Homes

Section [F] 501.2, Address identification, is amended to read as follows:

[F] 501.2 Address identification. All existing commercial and industrial buildings issued certificates of occupancy after September 10, 2006 and all new [~~New and existing~~] buildings shall be provided with approved address identification [~~numbers or letters~~]. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be a minimum of six inches [~~4 inches (102 mm)~~] high with a minimum stroke width of ½ inch (12.7mm). For buildings with individual suites, the suite numbers shall be a minimum of four inches high with a minimum stroke width of ½ inch (12.7mm). [Where required by the *fire code official*, address identification shall be provided in additional approved locations to facilitate emergency response. Where access is by means of a private road and the building address cannot be viewed from the public way, a monument, pole or other approved sign or means shall be used to identify the structure. Address numbers shall be maintained.

Section 503.1, General, is amended by adding Section 503.1.4, Outdoor Covered Areas for Group A2 Occupancies, as follows:

503.1.4 Outdoor Covered Areas for Group A2 Occupancies. Where an outdoor covered patio meets **ALL** of the conditions listed, the covered patio is **NOT** required to be included in the calculated "building area" of the structure nor does it require any "types of construction separation" or "occupancy separation" to meet the City's Building Code.

1. The outdoor covered area is a Group A2 Occupancy less than 1,000 SF. If multiple covered areas are proposed, then the aggregate area of all of these areas shall be less than 1,000 SF or each additional area shall be separated by a minimum of 20 feet from each other.
2. The outdoor covered area is open on at least three sides and open a minimum of 50 percent of the perimeter of the area covered. In order to be considered "open" for the purpose of the exception, an open side shall be at least 50 percent open with the open area uniformly distributed to prevent the accumulation of smoke and toxic gases.
3. The outdoor covered area shall have adequate independent means of egress such that the occupants of the outdoor covered area are not required to egress through a connected or adjacent building.
4. Outdoor covered areas shall not be built within 10 feet of a property line.
5. Outdoor covered areas of wood construction shall be built with fire retardant treated wood as per IBC Section 2303.2 or protected with a fire-resistance rated material approved by the City.
6. The calculated occupant load of the outdoor covered area(s) shall contribute to the occupant load of the existing building for calculation of a total occupant load and for determination of the number of required plumbing fixtures per Section 403 of the IPC.

Section 703.4, Automatic sprinklers, is deleted.

[~~**703.4 Automatic sprinklers**. Under the prescriptive fire-resistance requirements of this code, the *fire-resistance rating* of a building element, component or assembly shall be established without the use of *automatic sprinklers* or any other fire suppression system being incorporated as part of the assembly tested in accordance with the fire exposure, procedures and acceptance criteria specified in ASTM E 119 or UL 263. However, this section shall not prohibit or limit the duties and powers of the *building official* allowed by Sections 104.10 and 104.11.~~]

Section 901.5, Acceptance testing, is amended by adding the following sentence to the end of the section to read as follows:

901.5 Acceptance tests. Fire protection systems shall be tested in accordance with the requirements of this code and the International Fire Code. When required, the tests shall be conducted in the presence of the Building Official [~~building official~~]. Tests required by this code, the International Fire Code and the standards listed in this code shall be conducted at the expense of the owner or the owner's representative. It shall be unlawful to occupy portions of a structure until the required fire protection systems within that portion of the structure have been tested and approved. A representative of the Fire Marshal shall witness all required acceptance tests for all these systems.

SECTION 901, GENERAL, is amended by adding Section 901.9, Permits, to read as follows:

901.9 Permits. Permits for fire protection systems shall be required as set forth in the International Fire Code, as amended.

Section 902.1, Definitions, is amended by adding the following exception to the definition of fire area as follows:

[B] FIRE AREA. The aggregate floor area enclosed and bounded by fire walls, fire barriers, exterior walls or horizontal assemblies of a building. Areas of the building not provided with surrounding walls shall be included in the fire area if such areas are included within the horizontal projection of the roof or floor next above.

Exception: Outdoor covered areas shall not be considered fire areas nor shall they be considered as part of the fire area of a connected building where all of the following conditions are met:

1. The outdoor covered area is a Group A2 Occupancy less than 1,000 ft^2 or is a Group A3 Occupancy. If multiple Group A2 Occupancy outdoor covered areas are proposed, then the aggregate area of all of these areas shall be less than 1,000 ft^2 or separated by a minimum of 20 feet from each other.

2. The outdoor covered area is open on at least three sides and open a minimum of 50% of the perimeter of the area covered. In order to be considered "open" for the purpose of this exception, an open side shall be at least 50% open with the open area uniformly distributed to prevent the accumulation of smoke and toxic gases.

3. The outdoor covered area shall have adequate independent means of egress such that the occupants of the outdoor covered area are not required to egress through a connected or adjacent building.

Section [F]903.1, General, is amended by adding Section 903.1.2, Safety Factor, and Section 903.1.3, High volume low speed fans in new and existing buildings, to read as follows:

903.1.2 Safety factor. Automatic sprinkler systems shall be designed with a minimum of 10% or five psi safety factor (whichever is greater) taken at the base of the riser for the hydraulically most demanding design area.

903.1.3 High volume low speed fans in new and existing buildings. The use of High Volume Low Speed (HVLS) or High Volume Low Velocity (HVLV) fans in fire sprinklered areas of new and existing buildings shall only be permitted as follows:

1. HVLS fans are permitted in rack storage and palletized storage arrangements up to twenty (20) feet in height in buildings with thirty (30) feet or less ceiling clearance, when Early Suppression Fast Response (ESFR) sprinklers are used to protect the storage array.

2. HVLS fans are permitted in light-hazard and ordinary-hazard occupancies as defined in NFPA 13, *Standard for the Installation of Sprinkler Systems.*
3. HVLS fans are not permitted in sprinklered areas with palletized storage greater than twelve (12) feet in height protected by control mode sprinklers.
4. In all cases, HVLS fans are required to be designed and installed to shut down automatically on any fire alarm signal. This includes automatic shut down upon sprinkler system waterflow alarm or any manual or automatic fire alarm detection device provided in the space.
5. In all cases, the clearance between the HVLS fans and the ceiling sprinklers and the top of storage shall be in compliance with the obstruction and clearance rules of NFPA 13.

Exception: When a technical opinion and report is provided in accordance with Section 104.7.2, the Fire Marshal or his designee shall analyze the opinion and report and may approve the use of HVLS or HVLV fans in additional areas when it is determined that the effectiveness of the fire sprinkler system is not compromised.

Section [F] 903.2, Where required, is amended to read as follows with the Exception remaining as written:

[F] 903.2. Where required. Approved *automatic sprinkler systems* in new buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.12. Where existing open buildings and structures are modified such that they are no longer at open on at least three sides and open a minimum of 50% of the perimeter of the area covered, fire sprinklers systems shall be installed for these change in occupancies in accordance with the applicable requirements in this section. In order to be considered "open" for the purpose of this requirement, an open side shall be at least 50% open with the open area uniformly distributed to prevent the accumulation of smoke and toxic gases.

Section [F] 903.2.1, Group A, is amended by adding the following exception to the end of the text:

Exception: A one-story detached open pavilion consisting of only a roof and supporting columns that meets all of the following criteria shall not require fire sprinklers.

1. The detached open pavilion is a Group A2, Group A3 or Group A4 Occupancy.
2. The detached open pavilion shall be less than 12,000 ft^2 in area.
3. The detached open pavilion shall be separated from adjacent structures by minimum of 30 feet.
4. The detached open pavilion is open on at least three sides and open a minimum of 50% of the perimeter of the area covered. In order to be considered "open" for the purpose of this exception, an open side shall be at least 50% open with the

open area uniformly distributed to prevent the accumulation of smoke and toxic gases.

5. The detached open pavilion shall have a minimum of 300% of the total number of required exits and a minimum of 300% of total exit minimum width or required capacity based upon the occupant load of the pavilion.

Section 903.2.1.3, Group A-3, is amended by adding the following item to the list of conditions:

[F] 903.2.1.3 Group A-3. An automatic sprinkler system shall be provided for fire areas containing Group A-3 occupancies and intervening floors of the building where one of the following conditions exists:

1. The *fire area* exceeds 12,000 square feet (1115 m2).

2. The fire area has an *occupant load* of 300 or more; [.]

3. The fire area is located on a floor other than a *level of exit discharge* serving such occupancies; *or* [.]

4. Any Group A-3 occupancy that serves alcohol shall comply with the fire sprinkler requirements for Group A-2 occupancies in Section 903.2.1.2.

Section [F] 903.2.6, Group I, is hereby amended by amending exception 2 as follows:

[F]903.2.6 Group I. An *Automatic sprinkler system* shall be provided throughout buildings with a Group I *fire area*.

Exceptions:

1. An *automatic sprinkler system* installed in accordance with Section 903.3.1.2 shall be permitted in Group I-1 Condition 1 facilities.
2. An *automatic sprinkler system* is not required where Group I-4 child day care facilities are at the *level of exit discharge* and where every room where care is provided has not fewer than one exterior exit door.
3. In buildings where Group 1-4 day care is provided on levels other than the *level of exit discharge*, an *automatic sprinkler system* in accordance with Section 903.3.1.1 shall be installed on the entire floor where care is provided, all floors between the level of care and the level of *exit discharge* and all floors below the *level of exit discharge* other than areas classified as an open parking garage.

Section [F] 903.2.8, Group R, is amended by adding the following exception:

[F] 903.2.8 Group R. An *automatic sprinkler system* installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area.

Exception: Foster care family homes as defined in Section 202

Section [F] 903.2.11.1.1, Opening dimensions and access, is amended by adding the following sentence to the end of that section to read as follows:

[F] 903.2.11.1.1 Opening dimensions and access. Openings shall have a minimum dimension of not less than 30 inches (762 mm). Such openings shall be accessible to the fire department from the exterior and shall not be obstructed in a manner that fire fighting or rescue cannot be accomplished from the exterior. Openings shall have a finished sill height which is no more than 44 inches (1117 mm) above the finished floor level of the story which the opening is serving.

Section [F] 903.2, Where required, is amended by adding Section [F] 903.2.13, Porte-cocheres, to read as follows:

[F] 903.2.13 Porte-cocheres. For buildings protected with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2, porte-cocheres greater than 1,000 square feet (92 m^2) in area shall be sprinklered.

Section [F] 903.3.1.1.1, Exempt locations, is amended by adding item 7 as follows:

[F] 903.3.1.1.1 Exempt locations. Automatic sprinklers shall not be required in the following rooms or areas where such rooms or area are protected with an *approved* automatic fire detection system in accordance with Section 907.2 that will respond to visible or invisible particles of combustion. Sprinklers shall not be omitted from any room merely because it is damp, of fire resistance rated construction or contains electrical equipment.

7. Equipment storage areas of fire stations where sprinklers are considered undesirable because of the nature of the contents, including firefighting apparatus and specialized equipment, when approved by the fire code official.

Section [F] 903.3.1.2, NFPA 13R sprinkler systems, is amended by adding Section [F] 903.3.1.2.3, Elevator machine room, to read as follows:

[F] 903.3.1.2.3 Elevator machine room. In all R occupancies or occupancies using a 13R system with elevator systems, the elevator machine room shall be sprinklered per NFPA 13.

SECTION 903, AUTOMATIC SPRINKLER SYSTEMS, is amended by adding Section [F] 903.6, Separation from non-sprinklered areas, to read as follows:

[F] 903.6 Separation from non-sprinklered areas. Unless otherwise exempted by this code or the 2015 International Fire Code (IFC) or required to be of a higher fire resistive construction by this code or the IFC, a minimum one hour fire barrier constructed in accordance with Chapter 7 shall be between sprinklered and non-sprinklered areas within a building.

Section [F] 905.1, General, is amended by adding Section [F] 905.1.1, Safety factor, as follows:

[F] 905.1.1 Safety factor. Standpipe systems shall be designed with a minimum ten (10) psi safety factor taken at the fire department connection for manual standpipes and taken at the base of the standpipe riser for automatic standpipes for the hydraulically most demanding system and/or outlet.

Section [F] 905.2, Installation standard, is amended by adding Section [F] 905.2.1, Class-I reducers, as follows:

[F] 905.2.1 Class-I reducers. A 2.5 inch by 1.5 inch reducer shall be provided on Class-I standpipe connections with caps and chains.

SECTION [F] 906, PORTABLE FIRE EXTINGUISHERS, is amended by adding Section [F] 906.2.1, Travel distance, as follows:

[F] 906.2.1 Travel distance. Travel distance is calculated from a point in the occupancy to the location of fire extinguisher located on the same floor level in accordance with the maximum distances listed in [F] Table 906.3(1) or [F] Table 906.3(2). Travel distance is calculated per floor when determining travel distance to a fire extinguisher in multi-story buildings.

Section [F] 907.1.2, Fire alarm shop drawings, is amended to reflect a new 4 and adds 15-18 inclusions to shop drawing submissions, and adding text to battery and voltage drop calculations as follows:

[F] 907.1.2 Fire alarm shop drawings. Shop drawings for fire alarm systems shall be submitted for review and approval prior to system installation, and shall include, but not be limited to, all of the following where applicable to the system being installed:

1. A floor plan that indicates the use of all rooms.
2. Locations of alarm-initiating devices.
3. Locations of alarm notification appliances, including candela ratings for visible alarm notification appliances.
4. Design minimum audibility level for occupant notification
5. Location of fire alarm control unit, transponders and notification power supplies.

6. Annunciators.

7. Power connection.

8. Battery calculations. Calculations are to be completed using a battery derating factor of 20% minimum.

9. Conductor type and sizes.

10. Voltage drop calculations. Calculations shall be completed using a maximum starting voltage of 20.4 volts for 24-volt systems and 10.2 volts for 12-volt systems.

11. Manufacturers' data sheets indicating model numbers and listing information for equipment, devices and materials.

12. Details of ceiling height and construction.

13. The interface of fire safety control functions.

14. Classification of the supervising station.

15. For in-building emergency voice alarm communication systems and mass notification systems, speaker circuit load calculations providing a total dB loss at the end of each speaker circuit.

16. Acoustically distinguishable space classifications and designations in accordance with NFPA 72, 2013 Edition Chapter 8, indicated on the floor plans in each applicable area with a designation and classification legend provided in tabular form.

17. When utilizing acoustic modeling software to determine acoustically distinguishable spaces, include reports from the modeling software with the submittal package.

18. For aspirating smoke detection systems, full transport time calculations shall be provided with the submittal package.

Section [F] 907.2.1.2, Emergency voice/alarm communication captions, is deleted.

[~~**[F] 907.2.1.2, Emergency voice/alarm communication captions.** Stadiums, arenas and grandstands required to caption audible public announcements shall be in accordance with Section 907.5.2.2.4.~~]

Section [F] 907.2.3, Group E, is repealed and replaced with Section [F] 907.2.3 Group E as follows:

[F] 907.2.3 Group E. A manual fire alarm system that activates the occupant notification system in accordance with Section [F] 907.5 shall be installed in Group E occupancies. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system.

Exceptions:

1. A manual fire alarm system is not required in Group E occupancies with an occupant load of less than 50.

2. Manual fire alarm boxes are not required in Group E occupancies where all of the following apply:

   2.1. Interior corridors are protected by smoke detectors

   2.2. Auditoriums, cafeterias, gymnasiums and similar areas are protected by heat detectors or other approved devices.

   2.3. Shops and laboratories involving dusts or vapors are protected by heat detectors or other approved devices.

   2.4. The capability to activate the evacuation signal from a central point is provided.

   2.5. In buildings where normally occupied spaces are provided with a two-way communication system between such spaces and a constantly attended receiving station from where a general evacuation alarm can be sounded, except in location specifically designated by the fire code official.

3. Manual fire alarm boxes shall not be required in Group E occupancies where the building is equipped throughout with an approved automatic sprinkler system in accordance with [F] 903.3.1.1, the notification appliances will activate on sprinkler water flow and manual activation is provided from a normally occupied location.

Section [F] 907.2.7.1, Occupant notification, is deleted in its entirety.

~~[[F] 907.2.7.1, **Occupant notification.** During times that the building is occupied, the initiation of a signal from a manual fire alarm box or from a waterflow switch shall not be required to activate the alarm notification appliances when an alarm signal is activated at a constantly attended location from which evacuation instructions shall be initiated over an emergency voice/alarm communication system installed in accordance with Section 907.5.2.2.]~~

Section [M] 907.2.13.1.2, Duct smoke detection, is amended to read as follows:

[M] 907.2.13.1.2 Duct smoke detection. Duct smoke detectors complying with Section 907.3.1 shall be located in accordance with the NFPA 90A: Standard for the Installation of Air-Conditioning and Ventilating Systems or as follows:

1. In the main return air and exhaust air plenum of each air-conditioning system having a capacity greater than 2,000 cubic feet per minute (cfm) (0.94 m≥/s). Such detectors shall be located in a serviceable area downstream of the last duct inlet.

2. At each connection to a vertical duct or riser serving two or more stories from a return air duct or plenum of an air-conditioning system. In Group R-1 and R-2 occupancies, a smoke detector is allowed to be used in each return air riser carrying not more than 5,000 cfm (2.4 m≥/s) and serving not more than 10 air-inlet openings.

[~~3. In systems with open air returns, the duct smoke detector shall be placed on the supply side.~~]

Section [F] 907.2, Where required - new buildings and structures, is amended by adding Section [F] 907.2.24, High occupant load, to read as follows:

[F] 907.2.24 High occupant load. In addition to the requirements listed in other sections of this code, any occupancy having an occupant load of 1000 or more shall be provided with a manual fire alarm system.

Exception: Open parking garages.

Section [F] 907.3.1, Duct smoke detectors, is amended to read as follows:

[F] 907.3.1 Duct smoke detectors. Smoke detectors installed in ducts shall be listed for the air velocity, temperature and humidity present in the duct. Duct smoke detectors shall be connected to the building's fire alarm control unit when a fire alarm system is required by Section 907.2. Activation of a duct smoke detector shall initiate a visible and audible supervisory signal at a constantly attended location and shall perform the intended fire safety function in accordance with this code, NFPA 90A: Standard for the Installation of Air-Conditioning and Ventilating Systems and the *International Mechanical Code*. Duct smoke detectors shall not be used as a substitute for required open area *detection.*

Exceptions:

[~~1. The supervisory signal at a constantly attended location is not required where duct smoke detectors activate the building's alarm notification appliances.~~]

1. ~~[2.]~~ In occupancies not required to be equipped with a fire alarm system, actuation of a smoke detector shall activate a visible and an audible signal in an approved location.

Smoke detector trouble conditions shall activate a visible or audible signal in an approved location and shall be identified as air duct detector trouble.

2. For fire alarm systems which cannot be programmed for supervisory signals, duct detectors shall be allowed to activate the alarm signal.

Section [F] 907.3., Fire safety functions, is amended by adding Section [F] 907.3.5, Fire alarm systems - emergency control, as follows:

[F] 907.3.5 Fire alarm systems - emergency control. At a minimum, the following functions, where provided, shall be activated by the fire alarm system:

1. Elevator capture and control in accordance with ASME/ANSI A17.1b-2007, Safety Code for Elevators and Escalators.

2. Release of automatic door closures and hold open devices.

3. Stairwell and/or elevator shaft pressurization.

4. Smoke management and/or smoke control systems.

5. Initiation of automatic fire extinguishing equipment.

6. Emergency lighting control.

7. Unlocking of doors.

8. Emergency shutoff of gas and fuel supplies that may be hazardous provided the continuation of service is not essential to the preservation of life.

9. Emergency shutoff of audio systems for sound reinforcement or entertainment (i.e. music systems, systems for announcement and broadcast which are separate from public address systems) provided that such systems are not used to issue emergency instructions.

10. Emergency shutoff of systems used for the creation of displays or special effects (i.e. lighting effects, laser light shows, projection equipment).

Section [F] 907.4.2.1, Location, is amended to add the following text and exception to read as follows:

[F] 907.4.2.1 Location. Manual fire alarm boxes shall be located not more than 5 feet (1524 mm) from the entrance to each exit. In buildings not protected by an automatic sprinkler system in

accordance with Section 903.3.1.1 or 903.3.1.2, additional [~~Additional~~] manual fire alarm boxes shall be located so that travel distance to the nearest box does not exceed 200 feet (60 960 mm).

Exception: Where construction of the building prohibits the proper installation of a pull station (e.g. glass walls, interior brick or rock walls), a pull station shall be allowed to be located in the normal path of egress, where approved by the fire marshal.

Section [F] 907.5.1, Presignal feature, is amended to read as follows:

[F] 907.5.1 Presignal features and positive alarm sequences. A presignal feature or Positive Alarm Sequence as defined in NFPA 72 shall not be installed unless approved by the fire code official and the fire department. Request to use a presignal feature or a Positive Alarm Sequence must be submitted in writing to the Fire Marshal and approval granted before installation. Where a presignal feature or Positive Alarm Sequence is provided, a signal shall be annunciated at a constantly attended location approved by the fire department, in order that occupant notification can be activated in the event of fire or other emergency. When approved by the fire code official, the presignal feature or Positive Alarm Sequence shall be implemented in accordance with the requirements of NFPA 72.

Section [F] 907.5.2.1, Audible alarms, is amended by adding Section [F] 907.5.2.1.3, Testing of audible alarms in occupancies other than Group R, as follows:

[F] 907.5.2.1.3 Testing of audible alarms in occupancies other than Group R. Audibility levels for all occupancies other than Group R shall be in accordance with the public mode requirements of NFPA 72, and shall be tested utilizing the following criteria:

1. A UL listed sound pressure level meter, which has been calibrated within the last calendar year, and supplied by the fire alarm system installing contractor, shall be utilized to obtain readings. The audiometer will be held five feet above floor, pointed in the direction of the audible device.

2. All doors within the occupancy, including the bathroom and balcony doors shall be in the closed position.

3. Levels shall be taken in the most remote areas of the occupancy first, including bathrooms and balconies.

4. Initial readings to confirm the average ambient sound level in each area shall be taken.

5. The fire alarm system shall be activated and readings in the tested areas shall be retaken and compared with the requirements.

Section [F] 907.5.2.1, Audible alarms, is amended by adding Section [F] 907.5.2.1.4, Testing of audible alarms in Group R occupancies, as follows:

[F] 907.5.2.1.4 Testing of audible alarms in Group R occupancies. Audibility levels for all Group R occupancies shall be in accordance with the requirements of Section [F] 907.6.2.1.1, and shall be tested utilizing the following criteria:

1. A UL listed sound pressure level meter, which has been calibrated within the last calendar year, and supplied by the fire alarm system installing contractor, shall be utilized to obtain readings. The audiometer will be held five feet above floor, pointed in the direction of the audible device.

2. Sleeping room doors within the occupancy shall be in the closed position.

3. Bathroom doors within the occupancy shall be in the closed position.

4. Ambient sound level shall be established with the television set at 50% of maximum volume, showers running, bathroom exhaust systems running, and air conditioning units running.

5. Levels shall be taken in the most remote area of the dwelling or sleeping unit first, including bathrooms.

6. Initial readings to confirm the ambient sound level in each area shall be taken.

7. The fire alarm system shall be activated and readings in the tested areas shall be retaken and compared with the requirements.

Section [F] 907.5.2.2, Emergency voice/alarm communication systems, is amended to read as follows:

[F] 907.5.2.2 Emergency voice/alarm communication systems. Emergency voice/alarm communication systems required by this code shall be designed and installed in accordance with NFPA 72. The operation of any automatic fire detector, sprinkler waterflow device or manual fire alarm box shall automatically sound an alert tone followed by voice instructions giving approved information and directions for a general or staged evacuation in accordance with the building's fire safety and evacuation plans required by Section 404 of the International Fire Code. In high-rise buildings, the system shall operate on a minimum of the alarming floor, the floor above and the floor below. If the system is not reset after five minutes, the building shall sound the general evacuation signal and message in all zones unless an alternative Positive Alarm Sequence has been approved by the Fire Marshal. Speakers shall be provided throughout the building by paging zones. At a minimum, paging zones shall be provided as follows:

1. Elevator groups.

2. Exit stairways.

3. Each floor.

4. Areas of refuge as defined in Section 1002.1.

Exception: In Group I-1 and I-2 occupancies, the alarm shall sound in a constantly attended area and a general occupant notification shall be broadcast over the overhead page.

Section [F] 907.5.2.2.4, Emergency voice/alarm communication captions, is deleted in its entirety.

[~~**[F] 907.5.2.2.4, Emergency voice/alarm communication captions.** Where stadiums, arenas and grandstands are required to caption audible public announcements in accordance with Section 1108.2.7.3, the emergency/voice alarm communication system shall be captioned. Prerecorded or live emergency captions shall be from an approved location constantly attended by personnel trained to respond to an emergency.~~]

Section [F] 907.5.2.3, Visible alarms, is amended by adding a subsection [F] 907.5.2.3.4, Group R-2 sleeping areas, to read as follows:

[F] 907.5.2.3.4 Group R-2 sleeping areas. Living room in Group R-2 occupancies shall have visible notification devices that meet the effective intensity requirements of NFPA 72, Table 7.5.4.6.2.

Section [F] 907.5.2.3,Visible alarms, is amended by adding Section [F] 907.5.2.3.5, Combination devices, to read as follows:

[F] 907.5.2.3.5 Combination devices. Combination 120 VAC single or multiple-station smoke detectors with an onboard visible notification appliance if utilized to meet the requirements of Section [F] 907.2.11, will not be given credit for meeting the visible alarm notification requirements of Section [F] 907.6.2.3.4 if these devices do not have the capability of supplying backup power for the visible notification appliance portion of the device. Should such devices be utilized to comply with Section [F] 907.2.11, the visible appliance side of the device shall flash in synchronization with the notification appliances required in the unit.

SECTION 907, FIRE ALARM AND DETECTION SYSTEMS, is amended by adding Section [F] 907.9, Alarm signal silencing switch, to read as follows:

[F] 907.9 Alarm signal silencing switch. A switch for silencing the alarm signal sounding appliances shall be permitted only if it is key operated or located within a locked cabinet. Such a switch shall be permitted only if visible zone alarm indication or equivalent has been provided by approved annunciation, printout, or other approved means, and subsequent alarms on other initiating devices circuits will cause the audible alarm signaling appliances to resound. A switch that is left in the

"silence" position when there is no alarm shall operate trouble signals until the switch is restored to normal.

Section [F] 912.4.1, Locking fire department connection caps, is amended to read as follows:

[F] 912.4.1 Locking fire department connection caps. Fire department connection(s) shall have locking caps in the following areas/occupancies: the area described in Section 11-37 of the city's fire code; Group A, E, I occupancies; high-rise buildings; any other location that the fire code official determines that a locking cap would be necessary and/or beneficial for firefighting needs. [~~The fire code official is authorized to require locking caps on fire department connections for water-based fire protection systems where the responding fire department carries appropriate key wrenches for removal.~~]

SECTION [F] 912, FIRE DEPARTMENT CONNECTIONS, is amended by adding Section [F] 912.7, Location and type, as follows:

[F] 912.7 Location and type. Sprinkler system and standpipe fire department hose connections shall be as follows:

1. Within 40 feet of a public street, approved fire lane or access roadway; and

2. Within 250 feet of an approved fire hydrant measured per hose lay criteria in Section 507.5.1.2 except for R-2 apartments the fire department connection shall be within 500 feet of an approved fire hydrant measured per hose lay criteria in Section 507.5.1.2; and

3. Minimum of two feet above finished grade and a maximum of four feet above finished grade for standard inlets and minimum of 30 inches at lowest point above finished grade and maximum of four feet above finished grade for the five inch "Stortz" inlet.

4. The Fire Code Official shall approve the location of freestanding fire department connections. Freestanding FDCs must be physically protected against impact per the requirements of Section 312 or other approved means.

5. Where provided, the five inch "Stortz" inlet shall be installed at a 30 degree angle pointing down;

6. Fire department connections for H occupancies will be freestanding remove and located as determined by the fire code official; and

7. See Table 912.7

Table 912.7
FDC Connections required by System Type

Sprinkler Systems: Wet Dry	Either a 5 Inch Stortz inlet or (2)2 ½ Inch inlets		
Standpipes: Automatic Wet Automatic Dry Semiautomatic Dry		Either a 5 Inch Stortz inlet or (2)2 ½ Inch inlets	
Standpipes: Manual Wet Manual Dry			A 5 Inch Stortz inlet for the first 1000 gallons system demand and an additional 2 ½ inlet for each additional 250 gallon demand or portion thereof

There shall be no more than one Stortz connection in any configuration.

*One (1) 2.5 inch inlet is required for all systems designed per NFPA 13R. If the system demand is greater than 250 GPM, two (2) 2.5 inch inlets are required to be installed. No FDC is required for projects designed per NFPA 13D.

Section [F] 1003, General Means of Egress, is amended by adding the Section [F] 1003.8, Special provisions, as follows:

[F] 1003.8 Special provisions. Rooms in E occupancies used for kindergarten or daycare classified as an E occupancy shall not be located above or below the first story.

Exceptions:

1. Basements or stories having floor levels located within four feet, measured vertically, from adjacent ground level at the level of exit discharge, provided the basement or story has exterior exit doors at that level.

2. In buildings equipped with an automatic sprinkler system throughout, rooms used for kindergarten or for daycare purposes may be located on the second story, provided there are at least two exterior exit doors for the exclusive use of such occupancies.

Section 1004.1.2, Areas without fixed seating, is amended by adding a sentence to the end of the main body of the section to read as follows:

1004.1.2 Areas without fixed seating. The number of occupants shall be computed at the rate of one occupant per unit of area as prescribed in Table 1004.1.2. For areas without fixed seating, the occupant load shall not be less than that number determined by dividing the floor area under consideration by the occupant load factor assigned to the function of the space as set forth in Table

1004.1.2. Where an intended function is not listed in Table 1004.1.2, the *Building Official* [~~building official~~] shall establish a function based on a listed use that most nearly resembles the intended function. When the calculated number is not a whole number, it is required to round up to the next whole number for determination of the occupant load of a space.

Exception: Where *approved* by the *Building Official* [~~building official~~] the actual number of occupants for whom each occupied space, floor or building is designed, although less than those determined by calculation, shall be permitted to be used in the determination of the design occupant load.

Section 1008.3, Emergency power for illumination, is amended by adding Section 1008.3.6, Illumination in Group E occupancies, to read as follows:

1008.3.2 Illumination in Group E occupancies. Group E occupancies shall have emergency lighting in interior stairs, corridors, windowless areas with student occupancy, shops, and laboratories.

SECTION 1009, ACCESSIBLE MEANS OF EGRESS, is repealed and replaced with a new SECTION 1009 to read as follows:

SECTION 1009
ACCESSIBLE MEANS OF EGRESS

All buildings or portions of buildings must comply with the accessibility standards adopted by the State. Projects shall be submitted to the Texas Department of Licensing and Regulation for review, inspection and approval in accordance with state law.

SECTION 1027, EXTERIOR EXIT RAMPS AND STAIRWAYS, is amended by adding Section 1027.7, Exterior fire escape, to read as follows:

1027.7 Exterior fire escape. Any existing fire escape which is deemed to be adequate fire escape under the laws of the state or under the provisions of the city fire prevention regulations shall be deemed an adequate means of egress for emergency use, as required by this chapter, and the number of existing exterior fire escapes shall be provided to comply with the fire escape law of the state and the city fire prevention regulations.

CHAPTER 11, ACCESSIBILITY, is repealed and replaced with a new CHAPTER 11 *to read as follows:*

CHAPTER 11
ACCESSIBILITY

All buildings or portions of buildings must comply with the accessibility standards adopted by the state. Projects shall be submitted to the Texas Department of Licensing and Regulation for review, inspection and approval in accordance with state law.

CHAPTER 15, ROOF ASSEMBLIES AND ROOFTOP STRUCTURES is amended by amending Section [P] 1503.4, Roof drainage, by adding Section 1503.4.4, Zero lot line development, and Section 1503.4.5 to read as follows:

1503.4.4 Zero lot line development. On zero lot line development where roof projections are allowed by deed covenant or ingress/egress easements and the roof slopes towards the adjoining property, adequate gutters and downspouts shall be provided to direct roof water away from adjacent property. Roof projections shall not extend beyond a point one third the width of the easement or a maximum of 24 inches (610 mm). If there is no slope towards zero lot line, gutters are not necessary.

1503.4.5 Any Group R or Group U occupancy with roof edges less than three feet (914 mm) to any property line shall be provided with gutters and downspouts to direct roof water away from adjacent property.

Section 1704.2, Special inspections and tests is amended to read as follows:

1704.2 Special inspections and tests. Where application is made to the *Building Official* [~~building official~~] for construction as specified [~~described~~] in [~~this~~] Section 10-6 [~~Section 105~~], the owner or the *registered design professional in responsible charge* acting as the owner's agent[~~, other than the contractor,~~] shall employ one or more *approved agencies* to provide *special inspections* and tests during construction on the types of work listed under Section 1705 and identify the *approved agencies* to the *Building Official.* [~~building official.~~] The special inspector shall not be employed by the contractor. These *special inspections* and tests are in addition to the inspections identified by the *Building Official* [~~building official~~] in Section 10-11 of this chapter. ~~[110.]~~

Exceptions:

1. Special inspections are not required for construction of a minor nature or as warranted by conditions in the jurisdiction as *approved* by the *Building Official* [~~building official~~]

2. Unless otherwise required by the *Building Official* [~~building official~~], *special inspections* and tests are not required for Group U occupancies that are accessory to a residential occupancy including, but not limited to, those listed in Section 312.1.

3. Special inspections and tests are not required for portions of structures designed and constructed in accordance with the cold-formed steel light-frame construction provisions of Section 2211.7 or the conventional light-frame construction provisions of Section 2308.

4. The contractor is permitted to employ the approved agencies where the contractor is also the owner.

Section 1704.2.1, Special inspector qualifications, is amended to read as follows:

1704.2.1 Special inspector qualifications. Prior to the start of construction and upon request, the *approved agencies* shall provide written documentation to the *Building Official* [~~building official~~] demonstrating the competence and relevant experience or training of the *special inspectors* who will perform the *special inspections* or tests during construction. Experience or training shall be considered relevant when the documented experience or training is related in complexity to the same type of special inspection or testing activities for projects of similar complexity and material qualities. These qualifications are in addition to qualifications specified in other section of this code.

The *registered design professional in responsible charge* and engineers of record involved in the design of the project are permitted to act as the *approved agency* and their personnel are permitted to act as the special inspectors for the work designed by them, provided they qualify as special inspectors.

Section 1704.2.4, Report requirement, is amended to read as follows:

1704.2.4 Report requirement. *Approved agencies* shall keep records of special inspections and tests. The *approved agency* shall submit reports of special inspections and tests to the *Building Official* upon request, [~~building official~~] and to the *registered design professional in responsible charge*. Individual inspection reports [~~Reports~~] shall indicate that work inspected or tested was or was not completed in conformance to *approved construction documents*. Discrepancies shall be brought to the immediate attention of the contractor for correction. If they are not corrected, the discrepancies shall be brought to the attention of the *Building Official* [~~building official~~] and to the *registered design professional in responsible charge* prior to completion of that phase of the work. A final report written by the *registered design professional in responsible charge* documenting all of the required *special inspections* and tests, the special inspectors, and the corrective action taken for [~~and correction of~~] any discrepancies noted in the inspections and [~~or~~] tests, shall be submitted [~~at a point in time agreed upon prior to the start of work~~] by the owner or the owner's authorized agent to [~~the *building official*.~~] the *Building Official* prior to the *Building Official* issuing the certificate of occupancy or temporary certificate of occupancy.

Section 1704.2.5.2, Fabricator approval, is amended to read as follows:

1704.2.5.1 Fabricator approval. *Special inspections* during fabrications required by Section 1704 are not required where the work is done on the premises of a fabricator that is enrolled in a nationally accepted inspections program acceptable to the *registered design professional in responsible charge*. [~~registered and approved to perform such work without special inspection. Approval shall be based upon review of the fabricator's written procedural and quality control manuals and periodic auditing of fabrication practices by an approved agency.~~] At completion of fabrication, the acceptable [~~*approved*~~] fabricator shall submit a *certificate of compliance* to the owner and the *registered design professional professional in responsible charge*. [~~or the owner's authorized agent for submittal to the *building official* as specified in Section 1704.5 stating that the work was performed in accordance with the approved construction documents.~~] The *certificate of compliance* shall state that the work

was performed in accordance with the *approved construction documents*. The certificate of compliance shall also be made available to the *Building Official* upon request.

Section 3306.7, Covered walkways is amended by adding an exception "B" to read as follows:

3306.7 Covered walkways. Covered walkways shall have a minimum clear height of 8 feet (2438 mm) as measured from the floor surface to the canopy overhead. Adequate lighting shall be provided at all times. Covered walkways shall be designed to support all imposed loads. In no case shall the design live load be less than 250 psf (7.2 kN/m^2) for the entire structure.

Exception A: Roofs and supporting structures of covered walkways for new, light-frame construction not exceeding two stories above grade plane are permitted to be designed for a live load of 75 psf (7.2 kN/m^2) or the loads imposed on them, whichever is greater. In lieu of such designs, the roof and supporting structure of a covered walkway are permitted to be constructed as follows:

1. Footings shall be continuous 2-inch by 6-inch (51 mm by 152 mm) members.
2. Posts not less than 4 inches by 6 inches (102 mm by 152 mm) shall be provided on both sides of the roof and spaced not more than 12 feet (3658 mm) on center.
3. Stringers not less than 4 inches by 12 inches (102 mm by 305 mm) shall be placed on edge upon the posts.
4. Joists resting on the stringers shall be at least 2 inches by 8 inches (51 mm by 203 mm) and shall be spaced not more than 2 feet (610 mm) on center.
5. The deck shall be planks at least 2 inches (51 mm) thick or wood structural panels with an exterior exposure durability classification of at least 23/32 inch (18.3 mm) thick nailed to the joists.
6. Each post shall be knee braced to joists and stringers by 2-inch by 4-inch (51 mm by 102 mm) minimum members 4 feet (1219 mm) long.
7. A 2-inch by 4-inch (51 mm by 102 mm) minimum curb shall be set on edge along the outside edge of the deck.

Exception B: Pedestrian canopies for construction or demolition of buildings not exceeding 36 feet (10.97 m) in height or three stories, whichever is less, may be constructed of metal scaffolds of two-inch (51 mm) tubing adequately braced by 1.25 inch (32 mm) tubing. The passageway shall not be less than 39 inches (991 mm) in width at any point with a head room of not less than eight feet (2.44 m). The scaffold ends shall be braced by approved diagonal cross bracing maintaining a maximum of eight feet (2.44 m) between ends. A solid, tightly sheathed cover between scaffold and job site to be not less than 0.5 inch (12.7 mm) ply board

with railing when required by this section. The roof shall be tightly sheathed with a minimum of two-inch (51 mm) nominal wood planking.

APPENDIX H, SIGNS, is amended as follows:

SECTION H101, GENERAL, SECTION H102, DEFINITIONS, SECTION H103, LOCATION, SECTION H104, IDENTIFICATION, SECTION H113, MARQUEE SIGNS, and SECTION H114, PORTABLE SIGNS, are repealed. See Chapter 28, San Antonio Code, for additional requirements.

Section H105.2, Permits, drawings and specifications, is amended to read as follows:

H105.2, Permits, drawings and specifications. Where a permit is required, as provided in Article I of this chapter [~~Chapter 1~~], submittal documents consisting of construction documents, engineering calculations and other data shall be submitted in two or more sets with each permit application. [~~shall be required.~~] These documents shall show the dimensions, material and required details of construction, including loads, stresses and anchors. The submittal documents shall also be accompanied by the written consent of the owner or lessee of the premises upon which the sign is to be erected. The construction documents and engineering calculations shall be prepared by a Texas registered professional engineer and shall be signed and sealed.

Exception. Construction documents identified above will not be required to be stamped and sealed by a Texas registered professional engineer for the following conditions unless otherwise required by the *Building Official* because of unusual design or site conditions:

1. Pole signs that are 12 feet (3.66 m) or less in height.

2. Monument signs that are eight feet (2.44 m) or less in height.

3. Wall signs that weigh 600 lbs. (272 kg) or less.

4. Channel letters that weigh 7.5 psf (359.1 N/m2) or less.

Section H107, COMBUSTIBLE MATERIALS, is amended by repealing Sections H107.1.2 and H107.1.3.

Section H109, GROUND SIGNS, is amended by repealing Section H109.1, Height restrictions, and Section H109.2, Required clearance.

Section H110, ROOF SIGNS, is amended by repealing Section H110.3, Height of solid signs, Section H110.4, Height of open signs, and Section H110.5, Height of closed signs.

Section H112, PROJECTING SIGNS, is amended by repealing Section H112.4, Height limitation.

Section H115, REFERENCED STANDARDS, is amended by referencing the 2014 NEC as follows:

NFPA 70-14 [~~70-11~~] National Electrical Code	H106.1, H106.2

SECTION 15. Chapter 10, section 10-31, Fee schedule, is amended to reflect deletion of the Appeal to City Council fee. All other fees established in section 10-31 remain in full force:

Sec. 10-31. Fee schedule.

Development services establishes minimum values for the cost of commercial construction based upon the costs per square foot as published and updated by the International Code Council and used with the Army Corp of Engineers' modifier for the city. This value is established at the time the building plans are submitted. Additional valuation checks may be performed by the plans examiners during their review of the plans.

~~Appeal to City Council~~	~~$155.00~~

SECTION 16. Chapter 10, section 10-36, Adoption of International Residential Code (2012), is repealed and a new section 10-36, Adoption of International Residential Code (2015), is written in its place as follows:

Sec. 10-36. Adoption of International Residential Code (2015).

The 2015 edition of the International Residential Code for One-and-Two-family Dwellings, promulgated by the International Code Council, Chapters 2 through 10, 12 through 23, Section P2904, Chapter 44 and Appendices J and K is adopted and incorporated in this article by reference as if fully set forth, except as it is amended by the following provisions of section 10-37. Provisions of this article are in addition to the provisions of the International Residential Code. The following provisions coinciding with the provisions of the International Residential Code supersede, repeal, or delete, when indicated, the corresponding provisions of the International Residential Code.

All references within the model codes to any building, electrical, fuel gas, mechanical, plumbing, energy conservation, or existing building code shall be construed to be a reference to the respective building, electrical, fuel gas, mechanical, plumbing, energy conservation, or existing building code specifically adopted by reference in articles II through XIII of this chapter.

SECTION 17. Chapter 10, section 10-37, Amendments to the adopted chapters of the International Residential Code (2012), is repealed and a new section 10-37, Amendments to the adopted chapters and Appendices J and K of the International Residential Code (2015) is written in

its place. Additions to the International Residential Code (IRC) are shown as <u>underlined</u> text. Deletions of the IRC are shown as bracketed [~~*strikethroughs*~~].

Sec. 10-37. Amendments to the adopted chapters and Appendices J and K of the International Residential Code (IRC) (2015).

TABLE R301.2(1) is amended to read as follows:

TABLE R301.2(1)
CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

GROUND SNOW LOAD	WIND DESIGN		SEISMIC DESIGN CATEGORY[f]	SUBJECT TO DAMAGE FROM		
	Speed[d] (mph)	Topographic effects[k]		Weathering[a]	Frostline depth[b]	Termite[c]
5	*115*	*NO*	*A*	*Negligible*	*0*	*Moderate To Heavy*

WINTER DESIGN TEMP[e]	ICE BARRIER UNDERLAYMENT REQUIRED[h]	FLOOD HAZARDS[g]	AIR FREEZING INDEX[i]	MEAN ANNUAL TEMP[j]
30°	*NO*	*Appendix F, UDC*	*16*	*68.7°*

Section R308.4 Hazardous locations, subsection R308.4.2, Glazing adjacent doors, is amended to read as follows:

R308.4.2 Glazing adjacent doors. Glazing in an individual fixed or operable panel adjacent to a door shall be considered to be a hazardous location [~~where the nearest vertical edge of the glazing is within a 24-inch (610 mm) arc of either vertical edge of the door in a closed position and~~] where the bottom exposed edge of the glazing is less than 60 inches (1524 mm) above the floor or walking surface <u>and it meets either of the following conditions:</u> [~~shall be considered a hazardous location~~.]

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

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

Exceptions:

1. Decorative glazing.

2. Where [~~when~~] there is an intervening wall or other permanent barrier between the door and the glazing.

[~~3. Glazing in walls on the latch side of and perpendicular to the plane of the door in a closed position.~~]

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

4. [~~5.~~] Glazing that is adjacent to the fixed panel of patio doors.

Section R313.2, One- and two-family dwellings automatic fire systems, and Section R313.2.1, Design and installation, are deleted and replaced with the following:

R313.2 One and two-family dwellings automatic fire systems. Where automatic residential fire sprinkler systems are installed, they shall be designed and installed in accordance with Section P2904 or NFPA 13D.

[~~**R313.2 One and two-family dwellings automatic fire systems.** An automatic residential fire sprinkler system shall be installed in one-and two-family dwellings.~~

~~**Exception:** An automatic residential fire sprinkler system shall not be required for additions or alterations to existing buildings that are not already provided with an automatic residential sprinkler system.~~

~~**R313.2.1 Design and installation.** Automatic residential fire sprinkler systems shall be designed and installed in accordance with Section P2904 or NFPA 13D.~~]

Section R315.2.2, Alterations, repairs and additions, is amended to read as follows:

R315.2.2 Alterations, repairs and additions. Where *alterations*, repairs or *additions* requiring a building permit occur[~~,~~] inside of existing dwellings that have attached garages or inside of existing dwellings within which fuel-fired appliances exist, or where one or more sleeping rooms are added or created in existing *dwellings*, the individual *dwelling unit* shall be equipped with carbon monoxide alarms located as required for new *dwellings*.

Exceptions:

1. Work involving the exterior surfaces of *dwellings*, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck, is exempt from the requirements of this section.

2. Installation, alteration or repairs of plumbing or mechanical systems are exempt from the requirements of this section. *Section R317.1.2 Ground contact is amended to read as follows:*

R317.1.2 Ground contact. All wood in contact with the ground, embedded in concrete in direct contact with the ground or embedded in concrete exposed to the weather that supports permanent structures intended for human occupancy shall be approved pressure-preservative-treated wood suitable for ground contact use, except untreated wood may be used where entirely below groundwater level or continuously submerged in fresh water. Creosote-treated railroad ties will not be approved for use in retaining wall construction unless the wall is exempt from the requirement for a permit under Section 10-6(e)(4) of this chapter and the wall is located greater than four feet (1.22 m) from the public right-of-way.

SECTION R322, FLOOD-RESISTANT CONSTRUCTION, is hereby repealed and replaced with the city's flood plain ordinance found in Appendix F, Floodplain Areas of Special Flood Hazard, of the Unified Development Code (UDC).

Section R403.1.6 Foundation anchorage is amended in the first paragraph only to read as follows:

R403.1.6 Foundation anchorage. Wood sill plates and wood walls that are part of the braced wall provisions of this code and supported directly on continuous foundations shall be anchored to the foundation in accordance with this section.

Cold-formed steel framing shall be anchored directly to the foundation or fastened to wood sill plates anchored to the foundation. Anchorage of cold-formed steel framing and sill plates supporting cold-formed steel framing shall be in accordance with this section and Section R505.3.1 or R603.3.1.

Wood sole plates at all exterior walls on monolithic slabs, wood sole plates of *braced wall panels* at building interiors on monolithic slabs and all wood sill plates shall be anchored to the foundation shall be anchored to the foundation with a minimum ½-inch diameter (12.7 mm) anchor bolts spaced a maximum of 6 feet (1829 mm) on center or *approved* anchors or anchor straps spaced as required to provide equivalent anchorage to ½-inch diameter (12.7 mm) anchor bolts. Bolts shall extend a minimum of 7 inches (178 mm) into concrete or grouted cells of concrete masonry units. The bolts shall be located in the middle third of the width of the plate. 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) or 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 wall panel* 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.

Exceptions:

1. 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 item 9 of Table R602.3(1).

2. 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 item 9 of Table R602.3(1).

Section R903.4, Roof drainage, is amended by adding Sections R903.4.2, Zero lot line development, and R903.4.3, Gutters and downspouts, to read as follows:

R903.4.2 Zero lot line development. On zero lot line development where roof projections are allowed by deed covenant or ingress/egress easements, adequate gutters and downspouts shall be provided to direct roof water away from adjacent property. Roof projections shall not extend beyond a point one third the width of the easement or a maximum of 24 inches (610 mm).

R903.4.3 Gutters and downspouts. Any Group R or Group U occupancy with roof edges less than three feet (914 mm) to any property line shall be provided with gutters and downspouts to direct roof water away from adjacent property.

Section M1305.1.3 Appliances in attics, is amended by adding Subsection M1305.1.3.2, Access for cooling or heating appliance, to read as follows:

M1305.1.3.2 Access for cooling or heating appliance. For residential applications, the attic space in which any cooling or heating appliance is installed shall be provided with a permanent ladder or fold-away ladder or a direct access door opening from the house on the same floor level.

Section M1411.3.2 Drain pipe materials and sizes, is amended by adding a sentence at the end of the section to read as follows:

M1411.3.2 Drain pipe materials and sizes. Components of the condensate disposal system shall be ABS, cast iron, copper, cross-linked polyethylene, CPVC, galvanized steel, PE-RT, polyethylene, polypropylene or PVC pipe or tubing. Components shall be selected for the pressure and temperature rating of the installation. Joints and connections shall be made in accordance with the materials specified in Article IX of this chapter [~~applicable provisions of Chapter 30~~]. Condensate waste and drain line size shall be not less than ¾-inch (19 mm) nominal diameter from the drain pan connection to the place of condensate disposal. Where the drain pipes from more than one unit are manifolded together for condensate drainage, the pipe or tubing shall be sized in accordance with an *approved* method. Non-PVC primary drain lines located in unconditioned spaces, except for crawl spaces, shall be insulated with foam plastic rubber based insulation or other approved material with a minimum thickness of 3/8 inch.

Section M2005.2 Prohibited locations, is amended as follows:

M2005.2 Prohibited locations. Fuel fired water heaters shall not be installed in a room used as a storage closet. Water heaters located in a bedroom or bathroom shall be installed in a sealed enclosure

so that *combustion air* will not be taken from the living space. Installation of direct-vent water heaters within an enclosure is not required. Storage type water heaters shall not be installed in an attic unless accessible from a door opening from the house on the same floor level. Water heaters installed in a garage having an ignition source shall be elevated such that the source of ignition is not less than 18 inches (457 mm) above the garage floor, unless the ignition source is listed as flammable vapor ignition resistant. An electric water heater is the only type of water heater that may be installed under a stairway or landing.

SECTION 18. Chapter 10, section 10-38, Fee schedule, is amended to reflect the changes detailed immediately below. All other fees established in section 10-38 remain in full force:

Sec. 10-38. Fee schedule.

Residential plan review fees and residential permit fees apply to all separate additions, renovations, and installations to existing residential homes. See section 10-39 for fees for new residential construction.

Residential Plan Review Fees. See section 10-39 for new residential construction plan review fees.	
Residential Building Permit Fees. See section 10-39 for new residential construction building permit fees.	
~~[Appeal to City Council ...]~~	~~[$155.00]~~

SECTION 19. Chapter 10, section 10-39, New residential construction fee schedule, is added as detailed immediately below.

Sec. 10-39. New residential construction fee schedule.

This fee schedule applies to new residential home construction. See section 10-38 for fees for separate additions, renovations, and installations to existing residential homes.

FY 2013 Fee Schedule for New Residential Construction										
	Basic Permit Fees							**Optional Permit Fees**		
SF Range	**Building Permit**	**Electrical Permit**	**Mechanical Permit**	**General Plumbing Permit**	**Sewer Permit**	**Plan Review**	**Total Basic Permit Fees**	**TML Permit***	**TOPS Permit***	**Gas Permit***
0000-0500	$150	$100	$80	$60	$64	$200	$654	$57	$54	$64
0501-1000	$425	$100	$80	$119	$64	$200	$988	$57	$54	$64

1001-1250	$450	$100	$80	$128	$64	$200	$1,022	$57	$54	$64
1251-1500	$625	$100	$80	$132	$64	$200	$1,201	$57	$54	$64
1501-1750	$800	$100	$85	$145	$64	$200	$1,394	$57	$54	$64
1751-2000	$850	$100	$85	$149	$64	$200	$1,448	$57	$54	$64
2001-2250	$850	$100	$85	$151	$64	$200	$1,450	$57	$54	$64
2251-2500	$850	$100	$85	$156	$64	$200	$1,455	$57	$54	$64
2501-3000	$880	$110	$85	$164	$64	$200	$1,503	$57	$54	$64
3001-3500	$920	$110	$90	$178	$64	$400	$1,762	$57	$54	$64
3501-4000	$930	$120	$110	$190	$64	$400	$1,814	$57	$54	$64
4001-5000	$1,000	$125	$140	$207	$64	$400	$1,936	$57	$54	$64
5001-6000	$1,100	$125	$165	$223	$64	$400	$2,077	$57	$54	$64
6001-6500	$1,200	$150	$245	$283	$64	$600	$2,542	$57	$54	$64
6501-7000	$1,400	$150	$245	$342	$64	$600	$2,801	$57	$54	$64
7001-7250	$1,550	$200	$245	$351	$64	$600	$3,010	$57	$54	$64
7251-7500	$1,725	$200	$245	$355	$64	$600	$3,189	$57	$54	$64
7501-7750	$1,900	$200	$250	$368	$64	$600	$3,382	$57	$54	$64

7751-9000**	$2,000	$200	$250	$372	$64	$600	$3,486	$57	$54	$64
	*Optional Fees **For projects over ninety thousand (90,000) square feet, the fees are determined by combining smaller increments to equal the square footage.									

SECTION 20. Chapter 10, section 10-46, Adoption of International Existing Building Code (2012), is repealed and a new section 10-46, Adoption of International Existing Building Code (2015), is written in its place as follows:

ARTICLE V. EXISTING BUILDING CODE

Sec. 10-46. Adoption of International Existing Building Code (2015).

The 2015 edition of the International Existing Building Code, promulgated by the International Code Council, Section 101 and 102 of Chapter 1, and Chapters 2 through 16, is adopted and incorporated in this article by reference as if fully set forth, except as it is amended by the following provisions of section 10-47. Provisions of this article are in addition to the provisions of the International Existing Building Code. The following provisions coinciding with the provisions of the International Existing Building Code supersede, repeal, or delete, when indicated, the corresponding provisions of the International Existing Building Code.

All references within the model codes to any building, electrical, fuel gas, mechanical, plumbing, energy conservation, or existing building code shall be construed to be a reference to the respective building, electrical, fuel gas, mechanical, plumbing, energy conservation, or existing building code specifically adopted by reference in articles II through XIII of this chapter.

SECTION 21. Chapter 10, section 10-47, Amendments to the adopted chapters of the International Existing Building Code (2012), is repealed and a new section 10-47, Amendments to the adopted chapters of the International Existing Building Code (2015) is written in its place. Additions to the International Existing Building Code (IRC) are shown as <u>underlined</u> text. Deletions of the IEBC are shown as bracketed [~~*strikethroughs*~~].

Sec. 10-47. Amendments to the adopted chapters of the International Existing Building Code (2015).

Section 101.1, Title, is amended as follows:

101.1 Title. These regulations shall be known as the Existing Building Code <u>of San Antonio, Texas,</u> ~~[NAME OF JURISDICTION]~~ herein referred to as "this code."

Section [A] 101.4.2, Buildings previously occupied, is amended by amending the reference to the International Property Maintenance Code to read as follows:

[A] 101.4.2 Buildings previously occupied. The legal occupancy of any building existing on the date of adoption of this code shall be permitted to continue without change, except as is specifically covered in this code, the International Fire Code, or the San Antonio [~~International~~] Property Maintenance Code, or as is deemed necessary by the code official for the general safety and welfare of the occupants and the public.

Section 202, General Definitions is amended by amending the definition for Change of Occupancy to read as follows:

CHANGE OF OCCUPANCY. A change in the use of the building or a portion of a building. A change of occupancy shall include any change of occupancy classification, any change from one group to another group within an occupancy classification or any change in use within a group for a specific occupancy classification. Existing open buildings and structures that are modified such that they are no longer at open on at least three sides and open a minimum of 50% of the perimeter of the area covered are also considered a change of occupancy and fire sprinklers systems shall be installed for these change in occupancies in accordance with the applicable requirements of the International Building Code and International Fire Code. In order to be considered "open" for the purpose of this requirement, an open side shall be at least 50% open with the open area uniformly distributed to prevent the accumulation of smoke and toxic gases.

Section 406.3, Replacement window emergency escape and rescue openings, is amended to read as follows:

406.3 Replacement window emergency escape and rescue openings. Where windows are required to provide emergency escape and rescue openings in Group R-2 and R-3 occupancies, replacement windows shall be exempt from the requirements of 1030.2, 1030.3 and 1030.5 of the International Building Code provided the reqplacment window meets the following conditions:

1. [~~The replacement window is the manufacturer's largest standards size window that will fit within the existing frame or existing rough opening.~~] The replacement window shall be permitted to be of the same operating style as the existing window or a style that provides for an equal or great window opening areas than the existing window.
2. The replacement of the window is not part of a change of occupancy.

Section 1102.2 Area limitations, is amended by adding Section 1102.2.1, Fire wall alternative, as follows:

1102.2.1 Fire wall alternative. In other than Groups H, F-1 and S-1, fire barriers and horizontal assemblies constructed in accordance with Sections 707 and 711, respectively, of the *International Building Code* shall be permitted to be used in lieu of fire walls to separate the existing building from an addition for the purpose of complying with the area limitations required for the new occupancy where all of the following conditions are met:

1. The buildings (existing building and addition) are protected throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the *International Fire Code.*
2. The maximum allowable area between fire barriers, horizontal assemblies, or any combination thereof shall not exceed the maximum allowable area determined in accordance with Chapter 5 of the *International Building Code* without an increase allowed for an automatic sprinkler system in accordance with Section 506 of the *International Building Code.*
3. The fire-resistance rating of the fire barriers and horizontal assemblies shall not be less than that specified for fire walls in Table 706.4 of the *International Building Code.*

   Exception: Where horizontal assemblies are used to limit the maximum allowable area, the required fireresistance rating of the horizontal assemblies shall be permitted to be reduced by 1 hour provided the height and number of stories increases allowed for an automatic sprinkler system by Section 504.2 of the *International Building Code* are not used for the buildings.

SECTION 410, ACCESSIBILITY FOR EXISTING BUILDINGS, SECTION 605, ACCESSIBILITY, SECTION 705, ACCESSIBILITY, SECTION 806, ACCESSIBILITY, SECTION 906 ACCESSIBILITY, SECTION 1006, ACCESSIBILITY, SECTION 1012.8, ACCESSIBILITY, SECTION 1105, ACCESSIBILITY, SECTION 1204, ALTERATIONS, and Section [B] 1401.2.5, Accessibility requirements, are all repealed in their entirety.

SECTION 22. Chapter 10, section 10-51, Adoption of National Electrical Code (2012), is repealed and a new section 10-51, Adoption of National Electrical Code (2015), is written in its place as follows:

Sec. 10-51. Adoption of National Electrical Code 2014.

The 2014 edition of the *National Electrical Code*, promulgated as a standard by the National Fire Protection Association, is adopted and incorporated in this article by reference as if fully set forth, except as it is amended by the following provisions of section 10-52. Provisions of this article are in addition to the provisions of the *National Electrical Code*. The following provisions coinciding with the provisions of the *National Electrical Code* supersede, repeal, or delete, when indicated, the corresponding provisions of the *National Electrical Code*.

All references within the model codes to any building, electrical, fuel gas, mechanical, plumbing, energy conservation, or existing building code shall be construed to be a reference to the building code specifically adopted by reference in Articles II through XIII of this chapter.

SECTION 23. Chapter 10, section 10-52, Amendments to the adopted chapters of the National Electrical Code (2011), is repealed and a new section 10-52, Amendments to the adopted chapters of the National Electrical Code (2014) is written in its place. Additions to the National Electrical Code (NEC) are shown as underlined text. Deletions of the NEC are shown as bracketed [~~*strikethroughs*~~].

Sec. 10-52. Amendments to the adopted chapters of the *National Electrical Code* (2014).

Article 200.6 Means of Identifying Grounded Conductors, paragraphs (A), (A)(1), (A)(2), A(3) and paragraphs (B), (B)(1), (B)(2), (B)(3) and (B)(4) are amended as follows, with all other Code text remaining as is:

200.6. Means of Identifying Grounded Conductors.

(A) Sizes 10 [6] AWG or Smaller. An insulated grounded conductor of 10 [~~6~~] AWG or smaller shall be identified by one of the following means:

(A)(1) A continuous white outer finish shall be used on all systems with a voltage of less than 150 Volts between the grounded and ungrounded conductors.

(A)(2) A continuous gray outer finish shall be used on all systems with a voltage of 150 Volts or higher between the grounded and ungrounded conductors.

[~~(A)(3) [Three continuous white or gray stripes along the conductor's entire length on other than green insulation.~~]

(B) Sizes 8 [~~eight~~] **[4] AWG or Larger**. An insulated grounded conductor of 8 [~~eight~~] ~~[4]~~ AWG or larger shall be identified by one of the following means:

(B)(1) A continuous white outer finish shall be used on all systems with a voltage of less than 150 Volts between the grounded and ungrounded conductors.

(B)(2) A continuous gray outer finish shall be used on all systems with a voltage of 150 Volts or higher between the grounded and ungrounded conductors.

[~~(B)(3) Three continuous white or gray stripes along the conductor's entire length on other than green insulation.~~]

(B) (3)[~~(4)~~] At the time of installation, by a distinctive white or gray marking tape at its terminations. The [~~This~~] marking tape shall encircle the conductor or insulation a minimum of two-inches in length.

Article 200.7 Use of Insulation of a White or Gray Color or with Three Continuous White or Gray Stripes is amended just on the title as follows; all other Code text remains as is in the NEC 2014:

200.7 Use of Insulation of a White or Gray Color or with Three Continuous White or Gray Stripes on Cables Listed in Article 334.

Article 210.5 Identification for Branch Circuits. Paragraphs (C)(1)(a), (C)(2), (C)(2)(a) and (C)(2)(b) are amended as follows, all other Code text remains as is:

210.5 Identification for Branch Circuits.

(C). Identification of Ungrounded Conductors. Ungrounded conductors shall be identified in accordance with 210.5(C)(1) or (2), as applicable.

(1) Branch Circuits Supplied from More Than One Nominal System. Where the premises wiring system has branch circuits supplied from more than one nominal voltage system, each ungrounded conductor of a branch circuit shall be identified by phase or line and system at all termination, connection, and spice points in compliance with 210.5(C)(1)(a) and (b).

(a) *Means of Identification.* Conductors 10 AWG and smaller shall have factory colored insulation. Conductors 8 AWG and larger may have factory colored insulation or black insulation with a marking tape that encircles the insulation a minimum of two-inches in length. Color of insulation or marking tape shall comply with the following table: [~~The means of identification shall be permitted to be separate color coding, marking tape, tagging, or other approved means.~~]

UNGROUNDED CONDUCTOR IDENTIFICATION COLORS FOR ELECTRICAL SYSTEMS			
208Y/120 Volts	**120/240 Volts**	**480Y/277 Volts**	**120/240 Volts**
Three phase	**Three phase**	**Three phase**	**Single phase**
A - Black B - Red C - Blue	A - Black B - Orange (high leg) C - Blue	A - Purple B - Brown C - Yellow	A - Black B - Red

Informational Note 1: Conductors used for switch legs shall be the same color as the branch circuit conductors.

Informational Note 2: Conductors used for travelers may be of the same color as its associated switch leg or may be any of the above colors not used on the project. The colors designated for the grounded conductor, grounding conductors or for identification of the high leg may not be used for travelers.

Informational Note 3: In existing installations where modifications to the electrical system are required, and there is an established system of colors for ungrounded conductors, the existing color coding system may continue to be used.

(2) Branch Circuits Supplied From Direct-Current Systems. Where a branch circuit is supplied from a dc system operating at more than 50 volts, each ungrounded conductor of 8 [4] AWG or larger shall be identified by polarity at all termination, connection, and splice points by marking tape, tagging, or other approved means; each ungrounded conductor 10 [~~6~~] AWG or smaller shall be identified by polarity at all termination, connection, and splice points in compliance with 210.5(C)(2)(a) and (b). The identification methods used for conductors originating in each branch-circuit panelboard or similar branch-circuit distribution equipment shall be documented in a manner that is readily available or shall be permanently posted at each branch-circuit panelboard or similar branch-circuit distribution equipment.

(a) *Positive Polarity, Sizes 10 [~~6~~] AWG or Smaller.* Where the positive polarity of a dc system does not serve as the connection point for the grounded conductor, each positive grounded conductor shall be identified by one of the following means:

* * * * *

(b) *Negative Polarity, Sizes 10 [~~6~~] AWG or Smaller.* Where the negative polarity of a dc system does not serve as the connection point for the grounded conductor, each negative grounded conductor shall be identified by one of the following means:

* * * * *

Article 210.19 Conductors – Minimum Ampacity and Size. Paragraph (A)Branch Circuits Not More Than 600 Volts, (1)General, (a) is amended as follows, all other Code text remains as is:

210.19 Conductors – Minimum Ampacity and Size.

(a) Where a branch circuit supplies continuous loads or any combination of continuous and noncontinuous loads, the minimum branch-circuit conductor size [~~, before the application of any adjustment or correction factors,~~] shall have an allowable ampacity not less than the noncontinuous load plus 125 percent of the continuous load. No conductor smaller than 12 AWG copper or 8 AWG aluminum shall be used; however, conductors smaller than 12 AWG copper may be used for taps if part of an approved assembly.

Article 210.52 Dwelling Unit Receptacle Outlets. Paragraph (B)(1) and its Exception No. 2 are amended as follows, all other Code text remains as is:

(B) Small Appliances.

(1) Receptacle Outlets Served. In the kitchen, pantry, breakfast room, dining room, or similar area of a dwelling unit, the two or more 20-ampere small-appliance branch circuits required by 210.11(C)(1) shall serve all wall and floor receptacle outlets covered by 210.52(A), and all countertop

outlets covered by 210.52(C) [~~, and receptacle outlets for refrigeration equipment~~]. Receptacle outlets for refrigeration equipment shall not be connected to the small- appliance branch circuits.

[~~*Exception No. 2: The receptacle outlet for refrigeration equipment shall be permitted to be supplied from an individual branch circuit rated 15 amperes or greater.*~~]

Article 210.63 Heating, Air-Conditioning, and Refrigeration Equipment Outlet. Paragraph is amended as follows, all other Code text remains as is:

210.63 Heating, Air-Conditioning, and Refrigeration Equipment Outlet. A 125-volt, single-phase, 15- or 20-ampere-rated receptacle outlet shall be installed at an accessible location for the servicing of heating, air-conditioning, and refrigeration equipment. The receptacle shall be located on the same level and within 7.5 m (25 ft) of the heating, air-conditioning, and refrigeration equipment. An integral factory installed or a separate field installed receptacle outlet is permitted to be mounted on the unit. The field installed receptacle outlet shall not be located on panels that are designed to allow access to the air-conditioning or refrigeration equipment or to obscure the equipment nameplate(s). The receptacle outlet shall not be connected to the load side of the equipment disconnecting means. An integral factory installed receptacle outlet does not satisfy the requirement for servicing other equipment that may be located within 7.5 m (25 ft) of it.

Article 210.64 Electrical Service Areas. Paragraph is amended as follows, all other Code text remains as is:

210.64 Electrical Service Areas. At least one 125-volt, single-phase, 15- or 20-ampere-rated receptacle outlet shall be installed within 15 m (50 ft) of the electrical service equipment. The receptacle outlet shall be located on the same level and within sight of the electrical service equipment.

Exception: The receptacle outlet shall not be required to be installed in one-and-two family dwellings.

Article 210.70 Lighting Outlets Required, is amended to include 210.70(D); all other Code text remains as is:

210.70 Lighting Outlets Required. Lighting outlets shall be installed where specified in 210.70(A), (B), [~~and~~] (C), and D.

(D) Open Lamps. Lighting outlets required by 210.70(A)(3) and 210.70(C) with open lamps shall be guarded where installed less than seven feet above the working surface measured directly below the lamp or where exposed to physical damage.

Article 215.12 Identification for Feeders. Paragraphs (C)(1)(a), (C)(2), (C)(2)(a) and (C)(2)(b) are amended to read as follows:

215.12 Identification for Feeders.

(C) Identification of Ungrounded Conductors. Ungrounded conductors shall be identified in accordance with 215.12(C)(1) or (C)(2), as applicable.

(1) Feeders Supplied from More Than One Nominal Voltage System. Where the premises wiring system has feeders supplied from more than one nominal voltage system, each ungrounded conductor of a feeder shall be identified by phase or line and system at all termination, connection, and splice points in compliance with 215.12(C)(1)(a) and (b).

(a). *Means of Identification.* Feeders shall be color coded in accordance with Article 210.5(C)(1)(a). [~~The means of identification shall be permitted to be separate color coding, marking tape, tagging, or other approved means.~~]

(2) Feeders Supplied From Direct-Current Systems. Where a feeder is supplied from a dc system operating at more than 50 volts, each ungrounded conductor of 8 [4] AWG or larger shall be identified by polarity at all termination, connection, and splice points by marking tape, tagging, or other approved means; each ungrounded conductor 10 [~~6~~] AWG or smaller shall be identified by polarity at all termination, connection, and splice points in compliance with 210.5(C)(2)(a) and (b). The identification methods used for conductors originating in each feeder panelboard or similar feeder distribution equipment shall be documented in a manner that is readily available or shall be permanently posted at each feeder panelboard or similar branch-circuit distribution equipment.

(a). *Positive Polarity, sizes 10 [~~6~~] AWG or Smaller.* Where the positive polarity of a dc system does not serve as the connection point for the grounded conductor, each positive grounded conductor shall be identified by one of the following means:

(b). *Negative Polarity, sizes 10 [~~6~~] AWG or Smaller.* Where the negative polarity of a dc system does not serve as the connection point for the grounded conductor, each negative grounded conductor shall be identified by one of the following means:

Article 220.14 Other Loads – All Occupancies. Paragraph J is amended as follows, all other Code text remains as is:

220.14 Other Loads – All Occupancies.

(J) Dwelling Occupancies. In one-family, two-family, and multifamily dwellings and in guest rooms or guest suites of hotels and motels, the outlets specified in (J)(1), (J)(2), and (J)(3) are included in the general lighting load calculations of 220.12. No additional load calculations shall be required for such outlets. A maximum of eight outlets or a load of 1440 VA, consisting of receptacles at 180 VA each plus luminaires at their maximum allowed lamp wattage shall be permitted on a 15 A branch circuit and a maximum of 10 outlets or a load of 1920 VA, consisting of receptacles at 180 VA each plus luminaires at their maximum allowed lamp wattage shall be permitted on a 20 A branch circuit. When using the optional VA method in lieu of the total number of outlets described in the previous

sentence, the VA load shall be computed in accordance 210.20(A) – receptacles at 100% plus luminaires at 125%.

(1) All general-use receptacle outlets of 20-ampere rating or less, including receptacles connected to the circuits in 210.11(C)(3)

(2) The receptacle outlets specified in 210.52(E) and (G)

(3) The lighting outlets specified in 210.70(A) and (B)

Article 230.2 Number of Services. Paragraph F is added as follows, all other Code text remains as is:

230.2 Number of Services. A building or other structure served shall be supplied by only one service unless permitted in 230.2(A) through (D). For the purpose of 230.40, Exception No. 2 only, underground sets of conductors, 1/0 AWG and larger, running to the same location an connected together at their supply end but not connected together at their load end shall be considered to be supplying one service.

(F) Color Coding. Service entrance conductors shall be color coded in accordance with Article 210.5(C)(1)(a).

Article 230.30 Installation. Paragraph B is amended as follows, all other Code text remains as is:

230.30 Installation.

(B) Wiring Methods. Underground service conductors shall be installed in accordance with the applicable requirements of this Code covering the type of wiring methods used and shall be-limited to the following methods as modified below:

(1) Type RMC conduit

(2) Type IMC conduit

(3) Type NUCC conduit - encased in concrete

(4) Type HDPE conduit - encased in concrete

(5) Type PVC conduit - encased in concrete

(6) Type RTRC conduit - encased in concrete

[~~(7) Type IGS cable~~]

[~~(8) Type USE conductors or cables~~]

[~~(9) Type MV or MC cable identified for direct burial applications~~]

(7) [~~(10)~~] Type MI cable, where suitably protected against physical damage and corrosive conditions.

Where encasement is required above, it shall be a minimum 75 mm (3 in.) thick concrete envelope.

Article 230.43 Wiring Methods for 1000 Volts, Nominal, or Less. Paragraph is amended as follows all other Code text remains as is:

230.43 Wiring Methods for [~~600~~] 1000 Volts, Nominal, or Less. Service-entrance conductors shall be installed in accordance with the applicable requirements of this *Code* covering the type of wiring method used and shall be limited to the following methods as modified below:

[~~(1) Open wiring on insulators~~]

[~~(2) Type IGS cable~~]

(1) [~~(3)~~] Rigid metal conduit (RMC)

(2) [~~(4)~~] Intermediate metal conduit (IMC)

(3) [~~(5)~~] Electrical metallic tubing (EMT)

[~~(6) Electrical nonmetallic tubing (ENT)~~]

[~~(7) Service-entrance~~]

(4) [~~(8)~~] Wireways – metallic construction only

(5) [~~(9)~~] Busways

(6) [~~(10)~~] Auxiliary gutters – metallic construction only

(7) [~~(11)~~] Rigid polyvinyl chloride conduit (PVC) - encased in concrete

(8) [~~(12)~~] Cablebus

[~~(13) Type MC cable~~]

(9) [~~(14)~~] Mineral-insulated, metal-sheathed cable

[~~(15) Flexible metal conduit [FMC] not over 1.8 m (6 ft) long or liquidtight flexible metal conduit [LFMC] not over 1.8 m (6 ft) long between raceways, or between raceway and service equipment, with equipment bonding jumper routed with the flexible metal conduit or the liquidtight flexible metal conduit according to the provisions of 250.102(A), (B), (C), and (E)~~]

[~~(16) Liquidtight flexible nonmetallic conduit [LFNC]~~

(10) [~~(17)~~] High density polyethylene conduit (HDPE) - encased in concrete

(11) [~~(18)~~] Nonmetallic underground conduit with conductors (NUCC) - encased in concrete

(16) [~~(19)~~] Reinforced thermosetting resin conduit (RTRC) - encased in concrete

Where encasement is required above, it shall a minimum 75 mm (3 in.) thick concrete envelope.

Article 250.52 Grounding Electrodes. Paragraphs (A)(3)(1) and (A)(5)(b) are amended as follows, all other Code text remains as is:

250.52 Grounding Electrodes.

(A) Electrodes Permitted for Grounding.

(3) Concrete-Encased Electrode. A concrete-encased electrode shall consist of at least 6.0 m (20 ft) of either (1) or (2):

(1) One or more bare or zinc galvanized or other electrically conductive coated steel reinforced bars or rods of not less than 13 mm (1/2 in.) in diameter, installed in one continuous 6.0 m (20 ft) length, or if in multiple pieces connected together by the usual steel tie wires, exothermic welding, welding, or other effective means to create a 6.0 (20 ft) or greater length; or

Informational Note to (A)(3)(1): A piece of reinforcing steel conforming to (1) above which has additional length, without splice, extended up past the sole plate of the structure to which the grounding electrode may be connected to and extended to the service equipment is acceptable. The portion of the reinforcing steel extending above the sole plate shall be painted green and the paint removed from the bar where the connection is made to the grounding electrode conductor.

(5) Rod and Pipe Electrodes. Rod and pipe electrodes shall not be less than 2.44 m (8 ft) in length and shall consist of the following materials.

(b) Rod-type grounding electrodes of stainless steel and copper or zinc coated steel shall be at least 15.87 mm (5/8 in.) diameter[~~, unless listed~~].

Article 250.118 Types of Equipment Grounding Conductors. The first sentence of Paragraph 118 is amended as follows, all other Code text remains as is:

250.118 Types of Equipment Grounding Conductors.

As a minimum the equipment grounding conductor shall consist of a conductor as described in item (1) as follows and may be supplemented by any of the other means described in items (2) through

(14) as follows: [~~The equipment grounding conductor run with or enclosing the circuit conductors shall be one or more or a combination of the following:~~]

Article 250.119 Identification of Equipment Grounding Conductors. Paragraphs (A), (A)(1) and its Exception , and (A)(2)c are amended as follows, all other Code text remains as is:

250.119 Identification of Equipment Grounding Conductors.

(A) Conductors 8 [4] AWG and Larger. Equipment grounding conductors 8 [4] AWG and larger shall comply with 250.119(A)(1) and (A)(2).

(1) An insulated or covered conductor 8 [4] AWG and larger shall be permitted, at the time of installation, to be permanently identified as an equipment grounding conductor at each and every point where the conductor is accessible.

Exception: Conductors 8 [4] AWG and larger than shall not be required to be marked in conduit bodies that contain no splices or unused hubs.

(2) Identification shall encircle the conductor and shall be accomplished by one of the following:

c. Marking the insulation or covering with green tape, a minimum of two-inches in length, or green adhesive labels at the termination.

Article 300.5 Underground Installations, (D)(3) is deleted as follows, all other Code text remains as is:

[~~**(3) Service Conductors.** Underground service conductors that are not encased in concrete and that are buried 450 mm (18 in.) below grade shall have their location identified by a warning ribbon that is placed in the trench at least 300 mm (12 in.) above the underground installation.~~]

Table 310.15(B)(3)(c) Ambient Temperature Adjustment for Raceways or Cables Exposed to Sunlight on or Above Rooftops, is amended to include the following informational notes; all other Code text remains as is:

Informational Note to Table 310.15(B)(3)(c): The temperature adders in Table 310.15(B)(3)(c) are based on the measured temperature rise above the local climatic ambient temperatures due to sunlight heating.

Informational Note to Table 310.15(B)(3)(c): For purposes of calculating the temperature adjustment factors for installations in San Antonio, the design ambient temperature is 98.5°F (0.4%) per 2009 ASHRAE Handbook, Chapter F-14.

Article 314.19 Boxes Enclosing Flush Devices. Paragraph is amended as follows:

314.19 Boxes Enclosing Flush Devices. Boxes used to enclose flush devices shall be of such design that the devices will be completely enclosed on back and sides and substantial support for the devices will be provided. Screws for supporting the box shall not be used in attachment of the device contained therein. Boxes for flush devices shall have a minimum volume of 221 cm^3 (13.5 $in.^3$).

ARTICLE 320 Armored Cable: Type AC, is repealed.

ARTICLE 326.10 Uses Permitted. Paragraphs (1) and (3) are amended as follows, all other Code text remains as is:

326.10 Use Permitted. Type IGS cable shall be permitted for use underground, including direct burial in the earth, as the following:

~~[(1) Service-entrance conductors]~~

(2) Feeder or branch-circuit conductors

~~[(3) Service conductors, underground]~~

ARTICLE 330.10 Uses Permitted. Paragraphs (A)(1) and (B)(3) are amended as follows, all other Code text remains as is:

330.10 Uses Permitted.

(A) General Uses. Type MC cable shall be permitted as follows:

(1) For [~~services,~~] feeders and branch circuits.

(B) Specific Uses. Type MC cable shall be permitted to be installed in compliance with Parts II and III of Article 725 and 770.133 as applicable and in accordance with 330.10(B)(1) through (B)(4).

~~[**(3) Installed as Service-Entrance Cable.** Type MC cable installed as service-entrance cable shall be permitted in accordance with 230.43.]~~

Article 330.40 Boxes and Fittings, is amended as follows:

330.40 Boxes and Fittings. Fittings used for connecting Type MC cable to boxes, cabinets, or other equipment shall be listed and identified for such use. Additionally, all fittings shall be equipped with an anti-shorting bushing.

Article 330.104 Conductors, is amended as follows:

330.104 Conductors. Conductors shall be of copper, aluminum, copper-clad aluminum, nickel or nickel-coated copper, solid or stranded. The minimum conductor size shall be 12 [~~18~~] AWG copper, nickel or nickel-coated copper, or 8 [~~12~~] AWG aluminum or copper-clad aluminum.

Article 330.112 Insulation, is amended as follows with all other code provisions (A & B) remaining as is:

330.112 Insulation. Insulated conductors shall comply with 330.112(A) or (B) and shall be color coded per the requirements of this chapter.

Article 330.116 Sheath. Paragraph is amended as follows, all other Code text remains as is:

330.116 Sheath. Metallic covering shall be [~~one of the following types: smooth metallic sheath, corrugated metallic sheath,~~] interlocking metal tape armor. The metallic sheath shall be continuous

and close fitting. A nonmagnetic sheath or armor shall be used on single conductor Type MC. Supplemental protection of an outer covering of corrosion-resistant material shall be permitted and be required where such protection is needed. The sheath shall not be used as a current-carrying conductor. The cutting of the interlocking metal tape armor shall be performed with an approved rotary cutting tool designed for cutting MC cable.

Article 334.10 Uses Permitted. Paragraph is amended as follows, all other Code text remains as is:

334.10 Uses Permitted. Type NM, Type NMC, and Type NMS cables shall be permitted to be used in the following, except as prohibited in 334.12:

~~[(3) Other structures permitted to be of Types III, IV, and V construction except as prohibited in 334.12. Cables shall be concealed within walls, floors, or ceilings that provide a thermal barrier of material that has at least a 15-minute finish rating as identified in listings of fire-rated assemblies.]~~

~~[Informational Note No. 1: Types of building construction and occupancy classifications are defined in NFPA 220-2009, Standard Types of Building Construction, or the applicable building code, or both.]~~

~~[Informational Note No. 2: See Informative Annex E for determination of building types [NFPA 220, Table 3-1].]~~

~~[(4) Cable trays in structures permitted to be Types III, IV, or V where the cables are identified for the use.]~~

~~[Informational Note: See 310.15(A)(3) for temperature limitation of conductors.]~~

(3) Dwelling units used as Type B Occupancies, limited to churches only, as described in the International Building Code (IBC) Section 303.1.2, with an occupant load of less than 50 persons.

(4) Dwelling units used as Single Station Barber and Beauty Salons which comply with the requirements of the Unified Development Code (UDC) Section 35-399.01.

(5) Home Occupations which comply with the requirements of the Unified Development Code (UDC) section 35-378, excluding those used for medical purposes for the treatment of patients.

(6) The residential portion of a Live-Work Unit which meets the definition of and complies with the requirements of the International Building Code (IBC) Section 419. All conductors in the non-residential portion of the structure shall be installed in an approved non-open wiring method.

ARTICLE 338.10 Uses Permitted. Paragraph (A) is deleted as follows; All other Code text remains as is:

338.10 Uses Permitted.

[~~**(A) Service-Entrance Conductors.** Service-entrance cable shall be permitted to be used as service-entrance conductors and shall be installed in accordance with 230.6, 230.7, and Parts II, III, and IV of Article 230.~~]

ARTICLE 348.12 Uses Not Permitted, is amended to add a use not permitted as follows; All other Code text remains as is:

348.12 Uses Not Permitted.

(8) For service-entrance conductors

ARTICLE 350.12 Uses Not Permitted, is amended to add a use not permitted as follows; All other Code text remains as is:

350.12 Uses Not Permitted.

(3) For service-entrance conductors

ARTICLE 356.12 Uses Not Permitted, is amended to add a use not permitted as follows; All other Code text remains as is:

356.12 Uses Not Permitted.

(5) For service-entrance conductors

ARTICLE 362.12 Uses Not Permitted, is amended to add a use not permitted as follows; All other Code text remains as is:

362.12 Uses Not Permitted

(10) For service-entrance conductors

Article 362.20 Size. Paragraph (B) is amended as follows; All other Code text remains as is:

362.20 Size

(B) Maximum. ENT larger than metric designator 27 (trade size 1) [~~53 (trade size 2)~~] shall not be used.

ARTICLE 366.12 Uses Not Permitted, is amended as follows; All other Code text remains as is:

366.12 Uses Not Permitted. Auxiliary gutters shall not be used:

(3) For service-entrance conductors if nonmetallic

ARTICLE 378.12 Uses Not Permitted. Paragraph is amended as follows to add a sixth use not permitted; All other Code text remains as is:

378.12 Uses Not Permitted. Nonmetallic wireways shall not be used in the following:

(6) For service-entrance conductors

ARTICLE 394, Concealed Knob-and-Tube Wiring, is repealed.

ARTICLE 398.12 Uses Not Permitted, is amended as follows; All other Code text remains as is:

398.12 Use Not Permitted. Open wiring on insulators shall not be installed where concealed by the building structure or as service-entrance conductors.

Article 400.7 Uses Permitted, (A)Uses (2) is amended as follows; All other Code text remains as is:

400.7 Uses Permitted.

(A) Uses. Flexible cords and cables shall be used only for the following:

(2) Wiring of luminaires (fixtures) when supplied as part of a UL listed luminaires.

Article 408.30 General. Paragraph is amended as follows; All other Code text remains as is:

408.30 General. All panelboards shall have a rating not less than the minimum feeder capacity required for the load calculated in accordance with Part III, IV, or V of Article 220, as applicable. Panelboards containing the 120 Volt branch circuits serving the interior of one- and two-family dwelling units shall be located in the interior of the structure in a readily accessible location.

Article 424.19, Disconnecting Means, is amended as follows; All other Code text remains as is:

424.19 Disconnecting Means. Means shall be provided to simultaneously disconnect the heater, motor controller(s), and supplementary overcurrent protective device(s) of all fixed electric space-

heating equipment from all ungrounded conductors. Where heating equipment is supplied by more than one source, feeder, or branch circuit, the disconnecting means shall be grouped and marked. The disconnecting means specified in 424.19(A) and (B) shall have an ampere rating not less than 125 percent of the total load of the motors and the heaters and shall be lockable in accordance with 110.25. An integral factory installed or a separate field installed disconnecting means is permitted. An accessible field installed disconnecting means may be installed on or within sight of the equipment. The branch circuit serving the equipment shall be clearly marked on the equipment or the disconnecting means.

Article 440.14 Location, is amended as follows; all other section text remains as is:

440.14 Location. Disconnecting means shall be located within sight from and readily accessible from the air-conditioning or refrigerating equipment. An integral factory installed or a separate field installed disconnecting means is permitted. A field installed disconnecting means may be installed on the equipment. The branch circuit serving the equipment shall be clearly marked on the equipment or the disconnecting means. [~~The disconnecting means shall not be located on panels that are designed to allow access to the air-conditioning or refrigeration equipment or to obscure the equipment nameplate(s).~~]

The disconnecting means shall not be located on panels that are designed to allow access to the air-conditioning or refrigeration equipment or to obscure the equipment nameplate(s).

Article 525.20 Wiring Methods, (B) Single-Conductor is amended as follows; All other section text remains as is:

525.20 Wiring Methods.

(B) Flexible Cords and Single–Conductor Cables. Flexible cords shall be permitted only in sizes 12 AWG or larger and shall contain a separate grounding conductor. A maximum of one 25 foot (7.65 m) extension cords may be connected to each individual receptacle provided as part of the manufacturers listed generator. Single-conductor cable shall be permitted only in sizes 2 AWG or larger.

Article 600.32 Neon Secondary-Circuit Wiring, over 1000 Volts, Nominal,(A)Wiring Methods, (1) Installation and (3)Size are amended as follows; All other section text remains as is:

600.32 Neon Secondary-Circuit Wiring, over 1000 Volts, Nominal.

(A)Wiring Methods.

(1) Installation. Conductors shall be installed in rigid metal conduit, intermediate metal conduit, [~~liquidtight flexible nonmetallic conduit,~~] flexible metal conduit, liquidtight flexible metal conduit, electrical metallic tubing, metal enclosures; on insulators in metal raceways; or other equipment listed or use with neon secondary circuits over 1000 volts.

(3) Size. Conduit or tubing shall be a minimum of metric designator 12 (trade size 3/8"). [~~16 (trade size 1/2")~~]

ARTICLE 604 Manufactured Wiring Systems. Sections 604.1 Scope, 604.4 Uses Permitted Exception No. 1, 604.6(A)(1)Cables and 604.7 Installation are amended as follows; All other section text remains as is:

604.1 Scope. The provisions of this article apply to field-installed wiring using off-site manufactured subassemblies for lighting and underfloor power branch circuits [~~, remote-control circuits, signaling circuits, and communications circuits~~] in accessible areas.

604.4 Uses Permitted.

Exception No.1: In concealed spaces, one end of tapped cable shall be permitted to extend into hollow walls of manufactured wall systems, with removable panels for access to the wiring system, for direct termination at switch and outlet points.

604.6 Construction.

(A) Cable or Conduit Types.

(1) Cables. Only type MC cables conforming to item (2), below are permitted. [~~Cables shall be one of the following:~~]

604.7 Installation. Manufactured wiring systems shall be secured and supported in accordance with the applicable cable or conduit article for the cable or conduit type employed. All manufactured wiring system junction boxes shall be grounded in accordance with the manufacturer's instructions and all unused openings shall be covered with a factory supplied cover.

SECTION 24. Chapter 10, section 10-53, Electrical provisions (d)(2)(8) and (12) is amended as follows:

Sec. 10-53. Electrical provisions.

(d) Electrified fences or barriers. Electrified fences or barriers conforming to the following requirements shall be permitted:

(2) Electrified fences or barriers shall be limited to outdoor storage areas only in zoning designations: Commercial (C-2 and C-3), Light Industrial District (L), General Industrial District (I-1) and Heavy Industrial District (I-2). Unless specifically designated in this subsection, electrified fences or barriers shall not be permitted in any zoning district.

(8) Electrified fences or barriers shall not be installed within five feet of a sidewalk or public right-of-way. They shall also not be installed within one hundred fifty (150) feet [~~nor shall they be installed within 300 feet~~] of a property line for a residence, or from a public, private, or parochial school [~~,~~] or day care facility [~~, church or parkland~~] unless the exterior perimeter non-electrified fence is covered with a solid "see-through" covering (e.g., solid mesh, slats, etc.) to further prevent contact with the electrified fence and meets the City's traffic clear vision requirements for intended site.

(12) A permit holder's decision to appeal acts to modify the provisions of Section 10-14(b), Limitations of authority contained in this chapter and does not require acquiescence of the *Building Official* to appeal his decision. Procedures outlined in Section 10-14 of this chapter shall be followed unless specifically modified herein. The *Building Official* shall be authorized to revoke a permit upon the recommendation of the Chief of Police or designee, itself based on and supported by evidence of violation of this Ordinance. The *Building Official* or designee must send a notice of revocation to the last known address of the permit holder with such notice detailing a time of no more than 10 working days to appeal the *Building Official*'s decision. Notice of appeal must be sent as soon as practical, but no later than 10 working days past the revocation. The *Building Official*'s decision shall be final upon the expiration of the 10 working day period. A filed appeal shall suspend the *Building Official*'s action to revoke the permit. A permit holder shall be entitled to a hearing before the next reasonably available meeting of the Building-related and Fire Codes Appeals and Advisory Board and it shall either affirm or deny the *Building Official*'s decision. The board's decision shall be based on the same evidence reviewed by the *Building Official* and any subsequent information produced. [~~In order to overturn the *Building Official*'s decision, a motion shall be brought in the form of denying the *Building Official*'s decision and require a concurring vote of eight appointed board members.~~]

SECTION 25. Chapter 10, section 10-54, Fee schedule, is amended provide links to section 10-39 for various fees and to remove the Appeal to City Council fee as follows:

Sec. 10-54. Fee schedule.

Electrical inspection permit fee (basic fee). See section 10-39 for new residential construction electrical inspection fee.	$50.00
Temporary meter loop (TML). See section 10-39 for new temporary meter loop fee.	$2.15
Temporary on permanent sets (TOPS). See section 10-39 for temporary on permanent sets fee.	$2.15
~~[Appeal to City Council]~~	~~[$155.00]~~

SECTION 26. Chapter 10, section 10-61, Adoption of International Mechanical Code (2012), is repealed and a new section 10-61, Adoption of International Mechanical Code (2015), is written in its place as follows:

Sec. 10-61. Adoption of *International Mechanical Code* (2015).

The 2015 edition of the *International Mechanical Code*, promulgated by the International Code Council, Chapters 2 through 15 is adopted and incorporated in this article by reference as if fully set forth, except as it is amended by the following provisions of section 10-61. Provisions of this article are in addition to the provisions of the *International Mechanical Code*. The following provisions coinciding with the

provisions of the *International Mechanical Code* supersede, repeal, or delete, when indicated, the corresponding provisions of the *International Mechanical Code*.

All references within the model codes to any building, electrical, fuel gas, mechanical, plumbing, energy conservation, or existing building code shall be construed to be a reference to the respective building, electrical, fuel gas, mechanical, plumbing, energy conservation, or existing building code specifically adopted by reference in Articles II through XIII of this chapter.

SECTION 27. Chapter 10, section 10-62, Amendments to the adopted chapters of the International Mechanical Code (2012), is repealed and a new section 10-62, Amendments to the adopted chapters of the International Mechanical Code (2015) is written in its place. Additions to the International Mechanical Code (IMC) are shown as <u>underlined</u> text. Deletions of the IMC are shown as bracketed [~~*strikethroughs*~~].

Sec. 10-62. Amendments to the adopted chapters of the *International Mechanical Code* (2015).

Section 202.2 General Definitions, is amended by adding the following definition: NFPA 70:

<u>**NFPA 70.** The National Electrical Code, as amended by Article VI of this Code.</u>

Section 301.10, Electrical, is amended as follows:

301.10 Electrical. Electrical wiring, controls and connections to equipment and appliances regulated by this code shall be in accordance with NFPA 70. <u>All wiring, including control wiring, exposed to weather shall be installed in a raceway approved for the environment.</u>

Section 304 Installation, is amended by adding Section 304.13 Installation at gas valve, as follows:

<u>**304.13 Installation at gas valve.** Black iron pipe shall be installed at the gas valve and extended a minimum of two inches outside the gas furnace and gas rooftop unit's casing and shall be connected to an approved listed flexible gas connector.</u>

Section 306.3 Appliances in attics, is amended by adding 306.3.2 Access for cooling or heating appliance, as follows:

<u>**306.3.2 Access for cooling or heating appliance.** For new residential applications, the attic space in which any cooling or heating appliance is installed shall be provided with a permanent ladder, [~~or~~] fold-away ladder or direct access door.</u>

Section 307.2.1, Condensate disposal, is deleted and replaced with the following text:

307.2.1 Condensate disposal. <u>Condensate disposal shall be in accordance with Chapter 34, Section 34-274 of the City Code of San Antonio.</u> [~~Condensate from all cooling coils and evaporators shall be conveyed from the drain pan outlet to an *approved* place of disposal. Such piping shall maintain a minimum horizontal slope in the direction of discharge of not less than one-eighth unit vertical in 12 units horizontal (1 percent slope). Condensate shall not discharge into a street, alley or other areas so as to cause a nuisance.~~]

Section 307.2.2 Drain pipe materials and sizes, is amended as follows; All other section text remains as is:

307.2.2 Drain pipe materials and sizes. Components of the condensate disposal system shall be cast iron, galvanized steel, copper, cross-linked polyethylene, polybutylene, polyethylene, ABS, CPVC, PVC or polypropylene pipe or tubing. All components shall be selected for the pressure and temperature rating of the installation. Joints and connections shall be made in accordance with the applicable provisions of Chapter 7 of the *International Plumbing Code* relative to the material type. Condensate waste and drain line size shall be not less than ¾-inch (19 mm) internal diameter and shall not decrease in size from the drain pan connection to the place of condensate disposal. Where the drain pipes from more than one unit are manifolded together for condensate drainage, the pipe or tubing shall be sized in accordance with Table 307.2.2. Primary drain lines located in any unconditioned space, except for crawl spaces, shall be insulated with foam plastic rubber based insulation or approved material with a minimum thickness of 3/8 inch.

Section 307.2.4.1 Ductless mini-split system traps, is amended as follows; All other section text remains as is:

307.2.4.1 Ductless mini-split system traps. Ductless mini-split equipment that produces condensate shall be [~~provided with an in-line check valve located in the drain line, or a trap~~] in accordance with their manufacturers' recommendations.

Section 404.1 Enclosed parking garages, is amended as follows:

404.1 Enclosed parking garages. When mechanical ventilation systems for enclosed parking garages operate intermittently, such operation shall be by automatic means of carbon monoxide detectors applied in conjunction with nitrogen detectors shall dioxide detectors. Such detectors shall be installed and maintained in accordance with their manufacturers' recommendations.

Section 504.5 Dryer exhaust duct power ventilators, is amended as follows:

504.5 Dryer exhaust duct power ventilators. Domestic dryer exhaust power ventilators shall be listed and labeled to UL 705 for use in dryer exhaust duct systems. The dryer exhaust duct power ventilator shall be installed in accordance with the manufacturers' recommendations. Installation must include access to the installed equipment.

Section 507.1 General, Exceptions, is amended by adding fourth and fifth exceptions as follows; All other section text remains as written:

507.1 General.
Exceptions:

4. Type I hoods shall not be required in a Group E occupancy (K-12) Applied Learning Environment (A.L.E.) and Home Economic (Food & Consumer Sciences) classroom environments using domestic style cooking appliances for instructional demonstration or skilled task curriculum. However, domestic exhaust equipment as per section 505 of the IMC and portable fire extinguishers per the IFC Section 906.1, Item #2 shall be installed at each cooking appliance location.

5. Type I hoods shall not be required in a Group E Day Care using domestic-type cooking appliances, provided a letter from the owner is provided, signed, dated and on the Owner's letterhead stating no preparation of food producing grease vapors shall be accomplished on these premises. However, domestic exhaust equipment as per section 505 of the IMC and portable fire extinguishers per IFC 906.1, item #2 shall be installed at each cooking appliance location.

Section 602.1 General, is amended as follows:

602.1 General. Supply, return, exhaust, relief and ventilation air plenums shall be limited to uninhabited crawl spaces, areas above a ceiling or below the floor, attic spaces, and mechanical equipment rooms. Plenums shall be limited to a single required [~~one~~] fire area. Air systems shall be ducted from the boundary of the fire area served directly to the air-handling equipment. Fuel-fired appliances shall not be installed within a plenum.

Section 606.2 Where required, is amended as follows; All other section text remains as written:

606.2 Where required. Smoke detectors shall be installed where indicated in Section 602.1 through 602.3 or in accordance with NFPA 90A "Standard for the Installation of Air Conditioning and Ventilating Systems."

Section 1102.3 Access port protection, is deleted.

[~~**1102.3 Access port protection.** Refrigerant access ports shall be protected in accordance with Section 1101.10 whenever refrigerant is added to or recovered from refrigeration or air conditioning systems.~~]

Sec. 10-63. Fee schedule.

~~Appeal to City Council.....~~	~~$155.00~~

SECTION 28. Chapter 10, section 10-71, Adoption of International Fuel Gas Code (2012), is repealed and a new section 10-71, Adoption of International Fuel Gas Code (2015), is written in its place as follows:

Sec. 10-71. Adoption of *International Fuel Gas Code* (2015).

The 2015 edition of the *International Fuel Gas Code*, Chapters 2 through 8 and Appendices A through C, promulgated by the International Code Council, is adopted and incorporated in this article by reference as if fully set forth, except as it is amended by the following provisions of Section 10-72. Provisions of this article are in addition to the provisions of the *International Fuel Gas Code*. The following provisions coinciding with the provisions of the *International Fuel Gas Code* supersede, repeal,or delete, when indicated, the corresponding provisions of the *International Fuel Gas Code*.

All references within the model codes to any building, electrical, fuel gas, mechanical, plumbing, energy conservation, or existing building code shall be construed to be a reference to the respective building, electrical, fuel gas, mechanical, plumbing, energy conservation, or existing building code specifically adopted by reference in Articles II through XIII of this chapter.

SECTION 29. Chapter 10, section 10-72, Amendments to the adopted chapters of the International Fuel Gas Code (2012), is repealed and a new section 10-72, Amendments to the adopted chapters of the International Fuel Gas Code (2015) is written in its place. Additions to the International Fuel Gas Code (IFGC) are shown as <u>underlined</u> text. Deletions of the IFGC are shown as bracketed [~~*strikethroughs*~~].

Sec. 10-72. Amendments to the adopted chapters and appendices of the *International Fuel Gas Code* (2015).

Section 202.2 General Definitions, is amended by adding the following definition:

NFPA 70. The National Electrical Code, as amended by Article VI of this Code.

Section 401.5 Identification, is amended as follows, to include a second paragraph:

401.5 Identification. For other than steel pipe, exposed *piping* shall be identified by a yellow label marked "Gas" in black letters. The marking shall be spaced at intervals not exceeding 5 feet (1524 mm). The marking shall not be required on pipe located in the same room as the *appliance* served.

<u>All medium pressure gas piping systems shall identify its operating gas pressure with an approved metallic tag and the following wording shall be stamped into the tag at the meter:</u>

<u>WARNING</u>

<u>1-5 psi gas pressure</u>

<u>Do Not Remove</u>

<u>Section 403.10 Metallic piping joints and fittings, is amended by adding section 403.10.5 Welding Pipe; all other Code text to remain as is:</u>

<u>403.10.5. Welded pipe.</u> <u>All welded joints in piping system shall be welded by a certified *pipe welder* as defined in Article II of this chapter.</u>

Section 404.2 CSST, is amended by adding sections 404.2.1 and 404.2.2; all other Code text to remain as is:

<u>404.2.1[~~404.21.1~~] Meter loop.</u> <u>[~~Steel piping shall be required to provide a rigid connection at the meter loop~~] CSST is prohibited in the meter loop.</u>

<u>404.2.2 [~~404.21.2~~] Exterior walls.</u> <u>CSST [~~piping~~] is prohibited in exterior walls.</u>

Section 404.6, Underground penetrations prohibited, is amended by adding the following exception:

404.6 Underground penetration prohibited. *Gas piping* shall not penetrate building foundation walls at any point below grade. *Gas piping* shall enter and exit the building at a point above grade and the annular space between the *pipe* and the wall shall be sealed.

Exception: *Gas piping* may penetrate a slab-on-grade foundation, above or below grade, where the installation complies with Section 404.14.

Section 406.4.1 Test pressure, is deleted in its entirety and replaced with the following text:

406.4.1 Test pressure. The rough-in piping inspection shall include testing by closing all openings and subjecting the pipes to an air pressure that will support a column of mercury 15 inches (381 mm) in height or a 10 psi air test. For gas systems with pressures in excess of 14 inches of water column, the test pressure shall not be less than 1.5 times the operating pressure for the system and shall hold this pressure for a minimum of 30 minutes.

The final inspection shall include a column of mercury six inches (152 mm) in height or of a five psi air test with appliance shut-off valves attached thereto. For gas systems with pressures in excess of 14 inches of water column, the test pressure shall not be less than 1.5 times the operating pressure for the system and shall hold this pressure for a minimum of 30 minutes. [~~The test pressure to be used shall be not less than 1 ½ times the proposed maximum working pressure, but not less than 3 psig (20 kPa gauge), irrespective of design pressure. Where the test pressure exceeds 125 psig (862 kPa gauge), the test pressure shall not exceed a value that produces a hoop stress in the piping greater than 50 percent of the specified minimum yield strength of the pipe.~~]

Section 406.4.2 Test duration, is amended as follows, all other Code text to remain as is:

406.4.2 Test duration. Test duration shall be held for a length of time satisfactory to the code official, but in no case for less than 15 minutes. For welded piping, and for piping carrying gas at a pressure in excess of 14 inches of water column pressure (3.48 kPa), the test duration shall be held for a length of time satisfactory to the code official, but in no case for less than 30 minutes. [~~not less than ½ hour for each 500 cubic feet (14 m^3) of pipe volume or fraction thereof. When testing a system having a volume less than 10 cubic feet (0.28 m^3) or a system in a single-family dwelling, the test duration shall be not less than 10 minutes.~~] The duration of the test shall not be required to exceed 24 hours.

Section 406.4.3 Test gauges, is added as follows:

406.4.3 Test gauges. Tests gauges shall be a grade 1A or better as per ANSI/ASME B40.100-2005.

Section 409.5 Appliance shutoff valve, is amended as follows and by adding the following exception:

409.5 Appliance shutoff valve. Each appliance shall be provided with a shutoff valve in accordance with Section 409.5.1[~~,~~] or 409.5.2. [~~or 409.5.3~~.]

Exception: An outdoor appliance shall have a shutoff valve at the piping connection to the gas piping system.

Section 409.5.3 Located at manifold, is deleted.

[~~**409.5.3 Located at manifold.** Where the appliance shutoff valve is installed at a manifold, such shutoff valve shall be located within 50 feet (15 240 mm) of the appliance served and shall be readily accessible and permanently identified. The piping from the manifold to within 6 feet (1829 mm) of the appliance shall be designed, sized and installed in accordance with Sections 401 through 408.~~]

SECTION 30. Chapter 10, section 10-81, Adoption of International Plumbing Code (2012), is repealed and a new section 10-81, Adoption of International Plumbing Code (2015), is written in its place as follows:

Sec. 10-81. Adoption of *International Plumbing Code* (2015).

The 2015 edition of the *International Plumbing Code*, Chapters 2 through **15** and Appendices B through E, promulgated by the International Code Council, is adopted and incorporated in this article by reference as if fully set forth, except as it is amended by the following provisions of Section 10-82. Provisions of this article are in addition to the provisions of the *International Plumbing Code*. The following provisions coinciding with the provisions of the *International Plumbing Code* supersede, repeal, or delete, when indicated, the corresponding provisions of the *International Plumbing Code*.

All references within the model codes to any building, electrical, fuel gas, mechanical, plumbing, energy conservation, or existing building code shall be construed to be a reference to the respective building, electrical, fuel gas, mechanical, plumbing, energy conservation, or existing building code specifically adopted by reference in Articles II through XIII of this chapter.

SECTION 31. Chapter 10, section 10-82, Amendments to the adopted chapters of the International Plumbing Code (2012), is repealed and a new section 10-82, Amendments to the adopted chapters of the International Plumbing Code (2015) is written in its place. Additions to the International Plumbing Code (IPC) are shown as <u>underlined</u> text. Deletions of the IPC are shown as bracketed [~~*strikethroughs*~~].

Sec. 10-82. Amendments to the adopted chapters and appendices of the International Plumbing Code (2015).

Section 202 General Definitions, GREASE INTERCEPTOR, Gravity is amended as follows:

Gravity. Plumbing appurtenances of not less than 500 gallons (1893 L) capacity that are installed in the sanitary drainage system to intercept free-floating fats, oils, and grease from waste water discharge. Separation is accomplished by gravity during a retention time of not less than 30 minutes. <u>The appurtenance shall be a double compartment, first compartment 60% and the second compartment 40% with a minimum 20" manhole access to each compartment unless otherwise approved by the *code official*.</u>

Section 202 General Definitions, is amended by adding the following definitions:

NFPA 70. The National Electrical Code, as amended by Article VI of this Code.

Medical Gas Piping Endorsement. A document entitling the holder of a Master or Journeyman Plumber License to install piping that is used solely to transport gases used for medical purposes including, but not limited to oxygen, nitrous oxide, medical air, nitrogen, medical vacuum. A document entitling the holder of a Plumbing Inspector License to inspect medical gas and vacuum system installations.

Multipurpose Residential Fire Protection Sprinkler Specialist Endorsement. A document entitling the holder of a Master or Journeyman Plumber License to install a multipurpose residential fire protection sprinkler system in a one or two family dwelling. A document entitling the holder of a Plumbing Inspector License to inspect a multipurpose residential fire protection sprinkler system.

Reclaimed water. Water from sources such as rainwater harvesting, A/C condensate collection, carwashes, ponds, lakes, rivers or other sources as approved by the *Building Official*. [~~Nonpotable water that has been derived from the treatment of waste water by a facility or system licensed or permitted to produce water meeting the jurisdiction's water requirements for its intended uses. Also known as "recycled water."~~]

Recycled water. Water that, as a result of a tertiary treatment of domestic wastewater by a public agency, is suitable for a direct beneficial use or a controlled use that would not otherwise occur. The level of treatment and quality of the reclaimed/recycled water shall be approved by TCEQ.

Section 301 GENERAL, is amended by adding Section 301.8, Accessible openings, and Section 301.9, Separation from electrical lines in ditch, as follows:

301.8 Accessible openings. When accessible openings are required by this Code, they shall be a minimum of 12 inches x 12 inches (305 mm x 305 mm) in dimension unless otherwise approved by the *code official*.

301.9 Separation from electrical lines in ditch. When outside the footprint of the *building*, no *plumbing*, gas, *sewer*, or water piping shall be installed in the same ditch with electric lines unless a separation of 36 inches (914 mm) horizontally is maintained.

Section 305.4.1 Sewer depth, is amended as follows:

305.4.1 Sewer depth. *Building sewers* [~~that connect to private sewage disposal systems~~] shall be installed not less than a minimum of 12 [~~NUMBER~~] inches (304 mm) below finished grade. [~~at the point of septic tank connection.~~] [~~Building sewers shall be installed not less than [Number] inches (mm) below grade.~~]

Section 312.1.1 Test gauges, is amended as follows:

312.1.1 Test Gauges. Gauges used for testing shall be [~~as follows:~~] grade 1A or better as per ANSI/ASME B40.100-2005.

1. Tests requiring a pressure of 10 pounds per square inch (psi) (69 kPa) or less shall utilize a testing gauge having increments of 0.10 psi (0.69 kPa) or less.

2. Tests requiring a pressure of greater than 10 psi (69 kPa) but less than or equal to 100 psi (689 kPa) shall utilize a testing gauge having increments of 1 psi (6.9 kPa) or less.

3. Tests requiring a pressure of greater than 100 psi (689 kPa) shall utilize a testing gauge having increments of 2 psi (14 kPa) or less.]

Section 312.2 Drainage and vent water test, is amended as follows, all other Code text remains as is:

312.2 Drainage and vent water test. Prior to any concealment, a [~~A~~] water test and subsequent inspection shall be applied to the drainage system either in its entirety or in sections. If applied to the entire system, all openings in the piping shall be tightly closed, except the highest opening, and the system shall be filled with water to the point of overflow. If the system is tested in sections, each opening shall be tightly plugged except the highest opening of the section under test, and each section shall be filled with water, but no section shall be tested with less than a 3.5-foot (1067 mm) [~~10-foot (3048 mm)~~] head of water. In testing successive sections, at least the upper 10 feet (3048 mm) of the next preceding section shall be tested so that no joint or pipe in the building, except the uppermost 10 feet (3048 mm) of the system, shall have been submitted to a test of less than a 3.5-foot (1067 mm) [~~10-foot (3048 mm)~~] head of water. This pressure shall be held for at least 15 minutes. The system shall then be tight at all points. The first floor underground drain, waste and vent piping (Rough-In) systems shall be retested to at least slab height and inspected after all backfill is in place and foundation steel installed but prior to placement of concrete. This inspection may also be obtained by retesting the first floor underground drain; waste and vent piping (Rough-In) system at the Top Out stage to assure there are no broken drains or vent pipes below the concrete slab. The system shall be tested to the overflow level of the Tub, or the next reasonable point on the system as approved by the code official.

Section 312.6 Gravity sewer test, is deleted.

[~~312.6 Gravity sewer test.~~ ~~Gravity sewer tests shall consist of plugging the end of the building sewer at the point of connection with the public sewer, filling the building sewer with water, testing with not less than a 10-foot (3048 mm) head of water and maintaining such pressure for 15 minutes.~~**]**

Section [M] 314.2.1, is amended with the following text:

[M] 314.2.1 Condensate disposal. Condensate disposal shall be in accordance with Chapter 34, Section 34-274 of the City Code of San Antonio. [~~Condensate from all cooling coils and evaporators shall be conveyed from the drain pan outlet to an approved place of disposal. Such piping shall maintain a horizontal slope in the direction of discharge of not less than one-eighth unit vertical in 12 units horizontal (1-percent slope). Condensate shall not discharge into a street, alley or other areas so as to cause a nuisance.~~]

Section [M] 314.2.4.1 Ductless mini-split system traps, is amended as follows:

[M]314.2.4.1 Ductless mini-split system traps. Ductless mini-split equipment that produces condensate shall be in accordance with their manufacturers' recommendations. [~~provided with an in line check valve located in the drain line, or a trap.~~]

Section 401.3 Water conservation, is deleted in its entirety and replaced with the following text:

401.3 Water conservation. The maximum discharge flow rates for *plumbing fixture* fittings shall be in accordance with applicable standards referenced in Chapter 15 and listed in Table 604.4, but in no case shall they exceed the maximum requirements of the Texas Commission of Environmental Quality (TCEQ), Chapter 372, titled "Environmental Performance Standards for Plumbing Fixtures" and/or the requirements set forth by these amendments.

Table 403.1 MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES, Note e is deleted in its entirety and replaced with the following text:

e. Service sinks are not required for an occupant load of 15 or fewer or as otherwise approved by the *code official*.

Section 404 ACCESSIBLE PLUMBING FACILITIES, is deleted. Refer to TDLR Architectural Barriers Texas Accessibility Standards (TAS) Chapter 6.

Section 410.2 Small occupancies, is amended as follows:

410.2 Small Occupancies. Drinking fountains shall not be required for an occupant load of 30 [~~15~~] or fewer.

Section 410.4 Substitution, is amended as follows:

410. 4 Substitution. Where *buildings* with a use classification of A-2, B (clinics only), E (day care only), I-1, I-2 (Nursing Homes only), R-3 and R-4 as defined in the *International Building Code* [~~restaurants~~] provide drinking water in a container free of charge, drinking fountains shall not be required [~~in those restaurants~~]. In other occupancies, where drinking fountains are required, [~~water coolers, or bottled~~] water dispensers, or water in other containers shall be permitted to be substituted for not more than 50 percent of the required number of drinking fountains.

Section 416.5 Tempered water for public hand-washing facilities, is amended as follows:

416.5 Tempered water for public hand-washing facilities. [~~*Tempered water* shall be delivered from lavatories and group wash fixtures in public toilet facilities provided for customers, patrons and visitors.~~] *Tempered water* where provided shall be delivered through an *approved* water-temperature limiting device that conforms to ASSE 1070 or CSA B125.3.

Section 502.3 Water heaters installed in attics, is amended as follows:

502.3 Water heaters installed in attics. Storage type water heaters shall not be installed in an attic unless accessible from a door opening on the same floor level in one-and two-family residential occupancies and townhomes. Attics containing a water heater shall be provided with an opening an unobstructed passageway large enough to allow removal of the water heater. The passageway shall not be less than 30 inches (762 mm) high and 22 inches (559 mm) wide and not more than 20 feet (6096 mm) in length when measured along the centerline of the passageway from the opening to the water heater. The passageway shall have continuous solid flooring not less than 24 inches (610 mm) wide. A level service space at least 30 inches (762 mm) deep and 30 inches (762 mm) wide shall be present at the front or service side of the water heater. The clear access opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm) where such dimensions are large enough to allow removal of the water heater.

Section 502 INSTALLATION, is amended by adding Section 502.6, Water heaters installed under stairways and landings, as follows:

502.6 Water heaters installed under stairways and landings. An electric water heater is the only type of water heater that may be installed under a stairway or landing.

Section 502 INSTALLATION, is amended by adding Section 502.7, Water heaters installed in garages, as follows:

502.7 Water heaters installed in garages. Water heaters having an ignition source shall be elevated such that the source of ignition is not less than 18 inches (457 mm) above the garage floor.

> **Exception:** Elevation of the ignition source is not required for appliances that are listed as flammable vapor ignition resistant.

Section 504.1 Antisiphon devices, is amended as follows:

504.1 Antisiphon devices. An *approved means*, such as a [~~cold water "dip" tube with a hole at the top or a~~] vacuum relief valve installed in the cold water supply line above the top of the heater or tank, shall be provided to prevent siphoning of any storage water heater or tank.

Section 504.6 Requirements for discharge piping, is amended as follows:

504.6 Requirements for discharge piping. The discharge piping serving a pressure relief valve, temperature relief valve or combination thereof shall:

1. Not be directly connected to the drainage system.
2. Discharge through an *air gap* located in the same room as the water heater.
3. Not be smaller than the diameter of the outlet of the valve served and shall discharge full size to the *air gap.*
4. Serve a single relief device and shall not connect to piping serving any other relief device or equipment.
5. Discharge to [~~the floor, to the pan serving the water heater or storage tank, to~~] a waste receptor or to the outdoors. Discharge to the floor of a garage or basement will only be

allowed if approved by the *code official*. Terminate to the exterior a minimum of six inches (152 mm) and a maximum of 12 inches (304 mm) above the finish grade.

6. Discharge in a manner that does not cause personal injury or structural damage.
7. Discharge to a termination point that is accessible [~~readily observable by the building occupants~~].
8. Not be trapped.
9. To be installed so as to flow by gravity.
10. Terminate not more than 6 inches (152 mm) above and not less than two times the discharge pipe diameter above the floor or *flood level rim* of the waste receptor.
11. Not have a threaded connection at the end of such piping.
12. Not have valves or tee fittings.
13. Be constructed of those materials listed in Section 605.4 or materials listed, rated and *approved* for such use in accordance with ASME A112.4.1.

Section 604.4 Maximum flow and water consumption, Exceptions, is amended as follows, all other Code text remains as is:

604.4 Maximum flow and water consumption. The maximum water consumption flow rates and quantities for all plumbing fixtures and fixture fittings shall be in accordance with Table 604.4.

Exceptions:

[~~1. Blowout design water closets having a maximum water consumption of 3 ½ gallons (13 L) per flushing cycle.~~]

1. [~~2.~~] Vegetable sprays.
2. [~~3.~~] Clinical sinks having a maximum water consumption of 4 ½ gallons (17 L) per flushing cycle.
3. [~~4.~~] Service sinks.
4. [~~5.~~] Emergency showers.

Table 604.4, MAXIMUM FLOW RATES AND CONSUMPTION FOR PLUMBING FIXTURES AND FIXTURE FITTINGS, is amended as follows:

TABLE 604.4
MAXIMUM FLOW RATES AND CONSUMPTION FOR PLUMBING FIXTURES[d] AND FIXTURE FITTINGS

PLUMBING FIXTURE OR FIXTURE FITTING	MAXIMUM FLOW RATE OR QUANTITY[b]
Lavatory, private	1.5 [~~2.2~~] gpm at 60 psi
Lavatory,public (metering)	0.25 gallon per metering cycle
Lavatory, public (other than metering)	0.5 gpm at 60 psi
Shower head[a]	2.0 [~~2.5~~] gpm at 80 psi
Sink faucet	2.2 gpm at 60 psi

Urinal	0.5 [~~1.0~~] gallon per flushing cycle
Water closet[c]	1.28 [~~1.6~~] gallons per flushing cycle

For SI: 1 gallon = 3.785 L, 1 gallon per minute = 3.785 L/m.

1 pound per square inch = 6.895 kPa.

a. A hand-held shower spray is a shower head. All associated heads shall be appropriate for the flow rate.
b. Consumption tolerances shall be determined from referenced standards.
c. Gravity flush water closets shall have a maximum average water consumption of 1.28 gallons per flushing cycle. Water closets shall be High Efficiency Toilets as published by the Environmental Protection Agency.

d. Where the Environmental Protection Agency has accepted that specific plumbing fixtures, by make and model, meet or exceed WaterSense standards, such fixtures installed will be from the most current listing available at the time of installation.

Section 604.9, Water hammer, is amended as follows:

604.9 Water hammer. The flow velocity of the water distribution system shall be controlled to reduce the possibility of water hammer. A water-hammer arrestor shall be installed where quick-closing valves are utilized. Water-hammer arrestors shall be installed in accordance with the manufacturer's specifications. Water-hammer arrestors shall conform to ASSE 1010. Water-hammer arrestors shall be installed to protect all washing machines, kitchen sinks, dishwashers, tubs and shower locations from water hammer. A separate tub and shower set back to back may be served by a single set of water-hammer arrestors, provided that the continuation of the water line from one fixture (where the arrestors are located) to the other fixture does not exceed 8 linear feet as measured along the pipe.

Table 605.3 WATER SERVICE PIPE, is amended to reflect changes. Unaltered sections of the Table remain in full force:

TABLE 605.3
WATER SERVICE PIPE

MATERIAL	STANDARD
Copper or copper alloy tubing (Type K, WK, L, or WL [~~, M or WM)~~]	ASTM B 75; ASTM B 88; ASTM B 251; ASTM B 447
Polyvinyl chloride (PVC) plastic pipe	[~~ASTM B 75; ASTM B 88; ASTM B 251; ASTM B 447;~~] AWWA C900-07

Table 605.4, WATER DISTRIBUTION PIPE, to reflect changes. Unaltered sections of the Table remain in full force:

TABLE 605.4

WATER DISTRIBUTION PIPE

MATERIAL	STANDARD
Copper or copper alloy tubing (Type K, WK, L, or WL [~~, M or WM)~~]	ASTM B 75; ASTM B 88; ASTM B 251; ASTM B 447

Section 605.24.2 Plastic pipe or tubing to other piping material, is amended as follows:

605.24.2 Plastic pipe or tubing to other piping material. Joints between different types of plastic pipe or between plastic pipe and other piping material shall be made with ~~an~~ approved adapters or transition fittings. Schedule 40 plastic socket molded (female adapter) fittings are prohibited when connecting to pipe threads.

Section 606.2 Location of shutoff valves, is amended as follows:

606.2 Location of shutoff valves. Shutoff valves shall be installed in the following locations:

1. On the fixture supply at [~~to~~] each fixture other than bathtubs and showers in one-and two-family residential *occupancies*, and other than in individual sleeping units that are provided with unit shutoff valves in hotels, motels, Boarding houses and similar *occupancies*.

[~~2. On the water supply pipe to each sillcock.~~]

2. [~~3.~~] On the water supply pipe to each appliance or mechanical equipment.

Section 607.1 Where required, is amended as follows:

607.1 Where required. In residential *occupancies, hot water* shall be supplied to plumbing fixtures and equipment utilized for bathing, washing, culinary purposes, cleansing, laundry or building maintenance. In nonresidential *occupancies, hot water* shall be supplied for culinary purposes, cleansing, laundry or building purposes. In nonresidential *occupancies, hot water* or *tempered water* shall be supplied for bathing and washing purposes. In nonresidential *occupancies, hot water* or *tempered water* is not required for public hand-washing purposes.

Section 607.2 Hot or tempered water supply to fixtures, is amended as follows, all other Code text remains as is:

607.2 Hot or tempered water supply to fixtures. The developed length of hot or tempered water piping, from the source of hot water to the fixtures that require hot or tempered water, shall not exceed 100 [~~50~~] feet (30,480 mm [~~15 240 mm~~]). Recirculating system piping and heat-traced piping shall be considered sources of hot or tempered water.

Section 607.3, Thermal expansion control, is amended as follows, all other Code text remains as is:

607.3 Thermal expansion control. Where a storage water heater is supplied with cold water that passes through an on-site check valve, pressure reducing valve, or backflow preventer, a thermal expansion tank shall be connected to the water heater cold water supply pipe at a point that is downstream of all check valves, pressure reducing valves and backflow preventers. Thermal expansion tanks shall be sized in accordance to the manufacturer's instructions and sized such that the pressure in the water distribution system shall not exceed that required by section 604.8. Thermal expansion control is limited to the use of expansion tanks (per water conservation requirements of 1998, Ordinance 89128).

Section 608.13 Backflow protection, is amended by adding sections 608.13.11 Listing and 608.13.12 More than one assembly as follows:

608.13.11 Listing. All backflow prevention assemblies, where not otherwise covered in this *Code*, shall conform to listed standards and be acceptable to the *code official*, with jurisdiction over the selection and installation of backflow prevention assemblies.

608.13.12 More than one assembly. Where more than one (1) *backflow preventer* is installed on a single premise, and the *backflow preventers* are installed in one location, each separate *backflow preventer* shall be permanently marked in an *approved* manner to identify the location of the system that the backflow preventer serves.

Section 608.14 Location of backflow preventers, is amended by adding Section 608.14.3 Access, as follows:

608.14.3 Access. All backflow preventers shall be readily accessible

Section 608.16.1 Beverage dispensers, is amended as follows:

608.16.1 Beverage dispensers. The water supply connection to beverage dispensers shall be protected against backflow by a backflow preventer conforming to ASSE 1015 [~~1022~~] or by an *air gap*. The portion of the backflow preventer device downstream from the second check valve and the piping downstream there from shall not be affected by carbon dioxide gas.

Section 608.16.2 Connections to boilers, is amended as follows:

608.16.2 Connections to non-potable boilers. The potable supply to the boiler shall be equipped with a backflow preventer with an intermediate atmospheric vent complying with ASSE 1013. [~~1012 or CAN/CSA B64.3.~~] Where conditioning chemicals are introduced into the system, the potable water connection shall be protected by an *air gap* or a reduced pressure principle backflow preventer, complying with ASSE 1013, CAN/CSA B64.4 or AWWA C511.

Section 608.16.5 Connections to lawn irrigation systems, is amended as follows:

608.16.5 Connections to lawn irrigation systems. The potable water supply to lawn irrigation systems shall be protected against backflow by [~~an atmospheric-type vacuum breaker,~~] a pressure vacuum breaker assembly, a double-check valve assembly or a reduced pressure principle backflow prevention assembly. [~~Valves shall not be installed downstream from an atmospheric vacuum breaker.~~] Where chemicals are introduced into the system or there is an on site sewage facility (OSSF) system, the potable water supply shall be protected against backflow by a reduced pressure principle backflow prevention assembly. The irrigation system shall be designed and installed in accordance with City Ordinance #100322 and #2008-08-07-0653.

Section 702.3 Building sewer pipe, is amended as follows:

702.3 Building sewer pipe. *Building sewer* pipes three inch and four inch shall be a minimum of Schedule 40 PVC or SDR26. Sewer lines six inch and larger shall be a minimum of SDR 35 PVC. Cast-iron and Stainless steel 316L may also be used for all sizes. Polyethylene (PE) plastic pipe (SDR-PR) ASTM F 714 may be used for replacement of underground sewers by pipe-bursting methods in Section 717 [~~*Building sewer* pipe shall conform to one of the standards listed in Table 702.3.~~]

Table 702.3, Building Sewer Pipe, is repealed.

Section 705.1 General, is amended by adding section 705.1.1 Joint couplings as follows:

705.1.1 Joint Couplings. All underground or under slab mechanical joint coupling installations shall be shielded and Wide-Bodied.

Section 706.3, Installation of fittings, is amended as follows:

706.3 Installation of fittings. Fittings shall be installed to guide sewage and waste in the direction of flow. Change in directions shall be made by fittings installed in accordance with Table 706.3. Change in direction by combination fittings, side inlets or increasers shall be installed in accordance with Table 706.3 based on pattern of flow created by the fitting. Double sanitary tee patterns shall not receive the discharge of back-to-back water closets, [~~and~~] fixtures or appliances with or without pumping action discharge.

Exception: Back-to-back water closet connections to double sanitary tees shall [~~not~~] be permitted where the horizontal *developed length* between the outlet of the water closet and the connection to the double sanitary tee pattern is 18 inches (457 mm) or greater.

Section 706.4 Heel- or side-inlet quarter bends, is amended as follows:

706.4 Low-heel [~~Heel-or-side~~] inlet quarter bends. Low-heel [~~Heel~~] inlet quarter bends, in the upright position, shall be an acceptable means of connection for single fixtures, however, they cannot be used for wet venting. [~~, except where the quarter bend serves a water closet. A low-heel inlet shall not be used as a wet-vented connection. Side-inlet quarter bends shall be an acceptable means of connection for drainage, wet venting and *stack* venting arrangements.~~]

Section 708.1.2 Building sewers, is repealed and replaced with the following:

708.1.2 Building sewers. *Building sewers* smaller than 8 inches (203mm) shall have cleanouts located not more than 100 feet (30,480 mm) apart measured from the upstream entrance of the cleanout. The required cleanout fitting shall be a directional Tee-Wye drainage type fitting, unless otherwise approved by the *code official*. For building sewers 8 inches (203 mm) and larger, shall have a manhole located not more than 200 feet (60,960 mm) from the junction of the *building drain* and *building sewer*, at each change in direction and at intervals of not more than 400 feet (122 m) apart. The interval length shall be measured from the cleanout or manhole opening, along the developed length of the piping to the next drainage fitting providing access for cleaning, a manhole or the end of a *building sewer*.

Section 708.1.4 Changes of direction, is deleted and replaced with the following text:

708. 1.4 Changes of direction. An additional cleanout shall be provided in a drainage line for each aggregate horizontal change of direction exceeding 135 degrees (2.36 rad). [~~Where a horizontal drainage pipe, a building drain or a building sewer has a change of horizontal direction greater than 45 degrees (0.79 rad), a cleanout shall be installed at the change of direction. Where more than one change of horizontal direction greater than 45 degrees (0.79 rad) occurs within 40 feet (12 192 mm) of developed length of piping, the cleanout installed for the first change of direction shall serve as the cleanout for all changes in direction within that 40 feet (12 192 mm) of developed length of piping.~~]

Section 708.1.7 Manholes, is amended as follows:

708.1.7 Manholes. Manholes and manhole covers shall be of an *approved* type. Manhole covers located inside a building shall have gas-tight covers that require tools for removal. Manhole covers shall be identified as "SEWER" and shall not indicate a utility company thereon.

Section 708.1 Cleanouts required, is amended by adding section 708.1.12 Individual fixture, as follows:

708.1.12 Individual fixture. All washing machines and kitchen sinks shall have an accessible clean out.

Section 712, SUMPS AND EJECTORS, is amended by adding a new Subsection 712.5, Dual pump system, as follows:

712.5 Dual pump system. All sumps shall be automatically discharged and, when in any "public use" occupancy where the sump serves a water closet, shall be provided with dual pumps or ejectors arranged to function independently in case of overload or mechanical failure.

Section 802.1.1 Food handling, is amended as follows:

802.1.1 Food handling. Equipment and fixtures utilized for the storage, preparation and handling of food shall discharge through an indirect waste pipe by means of an air gap. Each well of a multiple-compartment shall discharge independently to a waste receptor or as approved by the *code official.*

Section 802.1.8 Food utensils, dishes, pots and pan sinks, is amended as follows:

802.1.8 Food utensils, dishes, pots and pan sinks. Sinks, in other than dwelling units, used for washing, rinsing or sanitizing of utensils, dishes, pots, pans or service ware used in the preparation, serving or

eating of food shall discharge indirectly through an *air gap* or an *air break* to the drainage system or as approved by the *code official*.

Section 903.1 Roof extension, is amended as follows:

903.1 Roof extension. Open vent pipes that extend through a roof shall be terminated [~~not less than~~] at least 6 [~~NUMBER~~] inches (152 mm) above the roof. Where a roof is to be used for an assembly or as a promenade, observation deck, sunbathing deck, or similar purposes, open vent pipes shall terminate not less than 7 feet (2134 mm) above the roof.

Section 905.4 Vertical rise of vent, is amended as follows:

905.4 Vertical rise of vent. Every dry vent shall rise vertically to a point not less than a minimum of 6 inches (152 mm) above the *flood level rim* of the highest trap or trapped fixture being vented. When structural conditions require horizontal vents to be installed below the flood level rim of the fixture they serve, they shall have a cleanout installed on the riser in an accessible location.

Exception: Vents for interceptors located outdoors.

Section 915.1 Type of fixtures, is amended as follows:

915.1 Type of fixtures. A *combination waste and vent system* shall not serve fixtures other than floor drains, sinks, lavatories, and drinking fountains. *Combination waste and vent systems* shall not receive the discharge from a [~~food waste disposer or~~] clinical sink.

Section 915.2.3 Connection, is amended as follows:

915.2.3 Connection. The *combination waste and vent system* shall have a minimum of two vents, one at the start of the system and one at the end of the system before the last fixture [~~be provided with a dry vent connected at any point within the system or the system shall connect to a horizontal drain that is vented in accordance with one of the venting methods described in this chapter serves vented fixtures located on the same floor~~]. *Combination waste and vent systems* connecting to building drains receiving only the discharge from ~~a~~ one or more stack or stacks shall be provided with a dry vent. The vent connection to the combination waste and vent pipe shall extend vertically to a point not less than 6 inches (152 mm) above the flood level rim of the highest fixture being vented before offsetting horizontally. The horizontal length of a combination waste and vent system shall be unlimited.

Section 916.2 Vent connection, is amended as follows:

916.2 Vent connection. The island fixture vent shall connect to the *fixture drain* as required for an individual or common vent. The vent shall rise vertically to above the drainage outlet of the fixture being vented before offsetting horizontally or vertically downward. The return bend used under the drain board shall be a one piece fitting or an assembly of a 45 degree, 90 degree and a 45 degree elbow in the order named. The vent or *branch* vent for multiple island fixture vents shall extend to a minimum of 6 inches (152 mm) above the highest island fixture being vented before connecting to the outside vent terminal or as approved by the *code official*.

Section 916.3 Vent installation below the fixture flood level rim, is amended as follows:

916.3 Vent installation below the fixture flood level rim. The vent located below the *flood level rim* of the fixture being vented shall be installed as required for drainage piping in accordance with Chapter 7, except for sizing. The vent shall be sized in accordance with Section 916.2. The lowest point of the island fixture vent shall connect full size to the drainage system. The connection shall be to a vertical drain pipe or to the top half of a horizontal drain pipe and shall include a foot vent off of the vertical vent prior to connection to the vertical drain pipe or to the top half of a horizontal drain pipe. The foot vent shall be routed to the nearest wall and either run independently to the atmosphere or connect to another vent. Cleanouts shall be provided in the island fixture vent to permit rodding of all vent piping located below the *flood level rim* of the fixtures. Rodding in both directions shall be permitted through a cleanout.

Section 917.1 Where permitted, is amended by adding section 917.1.1 Engineering certification, as follows:

917.1.1 Engineering certification. Single stack vent systems are considered to be an alternative engineering design system and shall be installed in strict accordance with the engineered design. Upon completion of this alternative design system, the design engineer shall submit a letter of the inspection of the systems compliance with the alternative design. The compliance letter shall be signed, sealed and dated, by the design engineer. Signage shall be permanently placed on site identifying the plumbing system as an alternative engineering design Single Stack Vent System and any alterations to the system shall be reviewed by an engineer.

Section 1002.4.1 Trap Seal Protection, is amended as follows, all other section text remains as is:

1002.4.1 Trap Seal Protection. Trap seals of *emergency floor d*rain traps and trap seals subject to evaporation shall be protected by one of the methods in Sections 1002.4.1.1 through 1002.4.1.4 or alternate methods approved by the *code official*.

Section 1003.2 Approval, is amended as follows:

1003.2 Approval. The size, type and location of each interceptor shall be designed and installed in accordance with the manufacturer's instructions and the requirements of this section based on the anticipated conditions of use. Wastes that do not require treatment or separation shall not be discharged into any interceptor or separator. All interceptors shall be stamped or labeled by the manufacturer with an indication of its size in gallons or its full discharge rate in gallons per minute (gpm). The full discharge rate to such an interceptor shall be determined at full flow. Each interceptor shall be rated equal to or greater than the incoming flow.

Section 1003.3.2 Food waste disposers, is amended as follows:

1003.3.2 Food waste disposers and Automatic hood wash/dishwasher units. All commercial food waste grinder/disposal units shall be connected to and discharge directly into a gravity grease interceptor. All commercial Automatic hood wash/dishwasher units shall discharge into a gravity grease interceptor. [~~Where food waste grinders connect to grease interceptors, a solids interceptor shall separate the discharge before connecting to the grease interceptor.~~] Solids interceptors and grease interceptors shall be sized and rated for the discharge of the food waste disposers. Emulsifiers, chemicals, enzymes and bacteria shall not discharge into the food waste disposers.

Section 1003.5 Sand interceptors in commercial establishments, is amended by adding Section 1003.5.1, Where required, as follows:

1003.5.1 Where required. Sand interceptors shall be installed in the drainage systems of the following establishments: garages, car washes, service stations, or any place of business where heavy solids or solids greater than 0.5 inch may be introduced into the sanitary sewer system. The sizing criteria for a sand interceptor shall be based on the required GPM x 12-minute retention times to obtain the tank size in gallon capacity.

Section 1003.6 Clothes washer discharge interceptor, is amended as follows and all other text remains as written:

1003.6 Clothes washer discharge interceptor. Clothes washers shall discharge through an interceptor that is provided with a wire basket or similar device, removable for cleaning, that prevents passage into the drainage system of solids ½ inch (12.7 mm) or larger in size, string, rags, buttons or other materials detrimental to the public sewage system. A professional engineer may design for specific operational requirements; however, the plans must be submitted with a professional engineer's seal for approval. The design shall be based on a 12-minute retention time.

Section 1003.9 Venting of interceptors and separators, is amended as follows:

1003.9 Venting of interceptors and separators. Interceptors and separators shall be designed so as not to become air bound. Interceptors and separators shall be vented in accordance with one of the methods in Chapter 9. Gravity type interceptors and separators shall have a minimum two-inch relief vent on the tank itself.

SECTION 1003 INTERCEPTORS AND SEPARTATORS, is amended by adding Sections 1003.11, Automatic car washes, 1003.12, Silver recovery units, 1003.13, Neutralizing devices, and 1003.14, Solid interceptors, as follows:

1003.11 Automatic car washes. Automatic car washes (with high pressure sprays and/or brushes) shall install an interceptor no small than 50 gallons per minute for a four-bay vehicle wash. The size of the interceptor shall increase 10 gallons per minute for each additional wash bay over four. Single bay or portable washer type vehicle washes shall install an interceptor no smaller than 20 gallons per minute. The sizing criteria for automatic car washes shall be based on the flow rate in gallons per minute times a 12-minute retention time.

1003.12 Silver recovery units. Silver recovery units shall be installed in waste line(s) leading from x-ray processing, photographic processing, and/or any procedures in establishments such as medical labs, photo finishers, printers, graphic arts production facilities, hospital, veterinary hospitals, or other establishments where silver may be introduced into the sanitary sewer system.

1003.13 Neutralizing devices. In no case shall corrosive liquids, spent acids, or other harmful chemicals which might destroy or injure a drain, sewer, soil or waste pipe, or which might create noxious fumes, discharge into the sanitary sewer system without being thoroughly neutralized by passing through a properly constructed and *approved* neutralizing medium, consisting of limestone or marble chips, so as to make its contents non-injurious before discharge into the *sanitary sewer* system.

1003.14 Solid interceptors. Solid interceptors shall be installed when pretreatment of waste streams is necessary to prevent solids greater than 0.5 inch (12.7 mm) in diameter, which may cause line stoppage, from entering the *sanitary sewer* system.

SECTION 1004 MATERIALS, JOINTS AND CONNECTIONS, is amended by adding Section 1004.2, Sample well, as follows:

1004.2 Sample well. An effluent sampling well for all interceptors shall be required. The sample well shall have a riser a minimum of six inches (153 mm) in diameter and shall be installed after the confluence of all wasted streams from the facility and prior to discharging into the *sanitary sewer* collection system. The well shall be perpendicular to the effluent lateral to allow observation of the flow stream and provide for sampling of waste water.

Section 1301.5 Potable water connections, is amended as follows:

1301.5 Potable water connections. Where a potable system is connected to a nonpotable water system, the potable water supply shall be protected against backflow in accordance with Section 608 and shall comply with the laws, rules and ordinances applicable to the application.

Section 1301.9.5 Makeup water, is amended as follows:

1301.9.5 Makeup water. Where an uninterrupted supply is required for the intended application, potable or reclaimed water shall be provided as a source of make-up water for the storage tank. The makeup water supply shall be protected against backflow in accordance with section 608. A full-open valve located on the makeup water supply line to the storage tank shall be provided. Inlets to the storage tank shall be controlled by fill valves or other automatic supply valves installed to prevent the tank form overflowing and to prevent the water level from dropping below a predetermined point. Where makeup water is provided, the water level shall not be permitted to drop below the water source water inlet or the intake of any attached pump. Where nonpotable systems are supplied with makeup water form a potable source, the potable makeup shall be protected by both an air gap and a RP backflow device in accordance with Section 608.

SECTION 32. Chapter 10, section 10-83, is amended to include references to section 10-39 inspection fees and to delete the Appeal to City Council fee. All other fees established in section 10-83 remain in full force:

Sec. 10-83. Fee schedule.

Plumbing Inspection (Basic Fee). See section 10-39 for new residential construction plumbing inspection fee.	$50.00
Gas Inspection (Basic Fee). See section 10-39 for new residential construction gas inspection	$50.00

fee.	
Sewer Inspection (Basic Fee). See section 10-39 for new residential construction sewer inspection fee.	$50.00
[~~Appeal to City Council~~]	[~~$155.00~~]

SECTION 33. Article X. Energy Conservation Code preamble is amended to read as follows:

ARTICLE X. ENERGY CONSERVATION CODE

The San Antonio City Council approves and adopts the recommendations of the Mayor's Sustainable Task Force:

The city supports the adoption and implementation of energy provisions that result in energy savings of 15% or greater than the currently adopted code in 2008 (IECC 2000 with 2001 supplement and ASHRAE 90.1 1999), the goal of 30% energy savings in 2012 over the currently adopted code in 2008 (IECC 2000 with 2001 supplement and ASHRAE 90.1 1999), the goal of net-zero carbon by 2030 with the intent to provide flexibility to permit the use of innovative approaches and techniques to achieve the effective use of energy and to reduce greenhouse gas and ozone precursor emissions in the city and which is not intended to abridge safety, health, or environmental requirements contained in other applicable codes or ordinances.

The city approves the goals of the following recommendations of the sustainable building task force:

(1) That the [~~planning and~~] development services department, office of public utilities within finance, and the office of sustainability [~~environmental policy~~] coordinate with CPS Energy and San Antonio Water System (SAWS) to evaluate a new construction residential and commercial financial incentive program to include the provision of specific rebates or other incentives, with an ultimate goal of achieving net zero carbon by 2030 and be designed to reward improved performance in a scaled fashion, within the current limitations of all applicable laws and regulations.

[~~(2) That the city create a marketing and education awareness campaign which is a unified comprehensive community-wide outreach effort supporting an advanced sustainable buildings initiative.~~]

(2) [~~(3)~~] That CPS Energy and SAWS provide existing rebate and incentive information to the city to coordinate and promote incentives to provide one-stop information.

(3) [~~(4)~~] That the [~~planning and development services department, with assistance from the~~] office of sustainability [~~environmental policy~~], provide information on sustainable building practices and incentives to encourage residential and commercial developers to exceed minimum code requirements and serve as a clearinghouse for green building information from a wide and ever-increasing variety of sources.

(4) [~~(5)~~] That the city office of sustainability [~~environmental policy~~]coordinate education awareness with other agencies or organizations that include workshops, trainings, and seminars which will provide sustainable building practices for residential and commercial buildings that exceed minimum code requirements.

~~[6.] That the city evaluate the feasibility of offering a property tax exemption for new homes and tax abatement or phase-in for new commercial buildings that achieve high energy performance levels, including participation in a third party verified green rating system addressing residential and commercial building. Such considerations may include a minimum HERS score for residential buildings.~~

~~[7.] That the city evaluate the feasibility of offering an additional amount of property tax abatement or phase-in for new homes and commercial buildings that utilize on-site renewable energy.~~

(5) [~~(8)~~] That the city office of sustainability [~~environmental policy~~] promote an annual San Antonio Green Leadership awards program to recognize all new residential and commercial builders, architects, and others that significantly exceed the minimum code and to post those names on the city's website and through additional public media outlets.

(6) [~~(9)~~] That CPS Energy and SAWS evaluate incentives and rebates to support energy and water conservation for programs that exceeds code and include such programs in a unified city-wide promotion.

~~[(10)].That the city evaluate the feasibility of funding for incentives through the planning and development services department, which could include fast-track permitting and reimbursement of fees, within the limitations of the current enterprise organization structure.~~

(7) [~~(11)~~] That energy incentives be provided to achieve 30% or greater savings above the currently adopted energy code; and

(8) [~~(12)~~] ~~That a stakeholder sustainable building committee (SSBC) be formed which consists of representatives of architectural, engineering, construction, development, green building and building code professionals. Among other duties, the SSBC would monitor the implementation of the recommendations of the mayor's task force on sustainable buildings and meet as needed but not less often than every three years to review COSA sustainability~~

~~*energy policies and goals. The SSBC would measure periodic progress and recommend the establishment or modification of interim goals to attain agreed long-term goals. Interim and long-term goals would be evaluated and recommended for amendment as required on the basis of sustainable environmental and community benefits, return on investment and practical impact on the regulated community. In 2012 the interim goal would target 30% above the current code in effect in 2008 (IECC 2000 with 2001 supplement and ASHRAE 90.1 1999); incentives will increase proportionately to achieve greater savings. Finally, should the energy needs/uses of existing buildings be examined in the future, the SSBC would be charged with the responsibility to present recommendations to city council.*~~

That the Building-Related and Fire Codes Appeals and Advisory Board (BRFCAAB) review the city's current energy code as needed but not less often than every three years and recommend changes to make periodic progress toward the goal of net-zero carbon by 2030.

(13) That the city office of sustainability would monitor the implementation of the recommendations of the mayor's task force on sustainable buildings, review COSA sustainability energy policies and goals, and measure periodic progress toward the goal of net-zero carbon by 2030.

(14) That the city office of sustainability would recommend the establishment or modification of interim goals to attain agreed long-term goals and make recommendations to city management, City Council, and the BRFCAAB as needed but not less often than every three years. Interim and long-term goals would be evaluated and recommended for amendment as required on the basis of sustainable environmental and community benefits, return on investment and practical impact on the regulated community.

SECTION 34. Chapter 10, section 10-91, Adoption of International Energy Conservation Code (2012), is repealed and a new section 10-91, Adoption of International Energy Conservation Code (2015), is written in its place as follows:

Sec. 10-91. Adoption of International Energy Conservation Code (2015).

The 2015 edition of the International Energy Conservation Code, promulgated by the International Code Council, Chapters 2[CE] through 5[CE], Chapters 2[RE] through 5[RE] and both the commercial and residential Chapters 6 (referenced standards), is adopted and incorporated in this article by reference as if fully set forth, except as it is amended by the following provisions of section 10-92. Provisions of this article are in addition to the provisions of the International Energy Conservation Code. The following provisions coinciding with the provisions of the International Energy Conservation Code supersede, repeal, or delete, when indicated, the corresponding provisions of the International Energy Conservation Code.

All references within the model codes to any building, electrical, fuel gas, mechanical, plumbing, energy conservation, or existing building code shall be construed to be a reference to the respective building, electrical, fuel gas, mechanical, plumbing, energy conservation, or existing building code specifically adopted by reference in articles II through XIII of this chapter.

SECTION 35. Chapter 10, section 10-92, Amendments to the adopted chapters of the International Energy Conservation Code (2012) is repealed and a new section 10-92, Amendments to the adopted chapters of the International Energy Conservation Code (2015), is written in its place. Local amendments are shown as <u>underlined</u> text and deletions shown as bracketed [~~strikethroughs~~].

Sec. 10-92. Amendments to the adopted chapters of the International Energy Conservation Code (2015).

Section C402.3, Roof solar reflectance and thermal emittance, is amended to read as follows (exceptions are unchanged):

C402.3 Roof solar reflectance and thermal emittance. Low-sloped roofs<u>, with a slope less than or equal to 2 units vertical per 12 units horizontal,</u> directly above cooled conditioned spaces in *Climate Zones* 1, 2 and 3 shall comply with one or more of the options in Table C402.3. <u>Roof surfaces with a slope greater than 2 units vertical per 12 units horizontal, directly above cooled conditioned spaces shall have a minimum reflectance of 0.35 or a minimum Solar Reflective Index of 29.</u>

Section C402.4.2, Minimum skylight fenestration area, Exception is amended by adding a sixth exception as follows. All other language in Section C402.4.2 remains:

Exception: Skylights above *daylight zones* of enclosed spaces are not required in:

1. Buildings in *Climate Zones* 6 through 8.
2. Spaces where the designed *general lighting* power densities are less than 0.5 W/ft^2 (5.4 W/m^2).
3. Areas where it is documented that existing structures or natural objects block direct beam sunlight on at least half of the roof over the enclosed area for more than 1,500 daytime hours per year between 8 a.m. and 4 p.m.
4. Spaces where the *daylight zone* under rooftop monitors is greater than 50 percent of the enclosed space floor area.
5. Spaces where the total area minus the area of *daylight zones* adjacent to vertical fenestration is less than 2,500 square feet (232 m^2), and where the lighting is controlled according to Section C405.2.5.
6. <u>In warehouses protected by Early Suppression Fast Response (ESFR) fire sprinklers where vertical wall fenestration is provided with a minimum areas equal to that determined by Section C402.4.2</u>.

Section C404.6.1, Circulation systems, is amended to read as follows:

C404.6.1 Circulation systems. Heated water circulation systems shall be provided with a circulation pump. The system return pipe shall be a dedicated return pipe or a cold water supply pipe. Gravity and thermo-syphon circulation systems shall be prohibited. Controls for circulating hot water system pumps shall comply with one of the following:

1. Controls for circulating hot water system pumps shall start the pump based on the identification of a demand for hot water within the occupancy. The controls shall automatically turn off the pump when the water in the circulation loop is at the desired temperature and when there is no demand for hot water.
2. Controls for circulating hot water system pumps shall include a timer clock switch operating pumps based on time of day/night. Controls shall also include a return water temperature sensor switch to pause the re-circulating pump whenever the return water is hot.

Section C405.6 Electrical energy consumption (Mandatory), is modified to read as follows:

C405.6 Electrical energy consumption (Mandatory). Each dwelling unit located in a Group R-2 multi-family building shall have a separate electrical meter.

Section C501.6, Historic buildings, is amended to read as follows:

C501.6 Historic buildings. No provisions of this code relating to the construction, *repair, alteration,* restoration and movement of structures, and *change of occupancy* shall be mandatory for *historic buildings*. [~~provided a report has been submitted to the *code official* and signed by a *registered design professional* or a representative of the State Historic Preservation Office or the historic preservation authority having jurisdiction, demonstrating that compliance with that provision would threaten, degrade or destroy the historic form, fabric or function of the building~~.]

Section C503.3.1, Roof replacement, is amended to read as follows:

C503.3.1 Roof replacement. *Roof replacements* shall comply with Table C402.1.3 or C402.1.4 where the existing roof assembly is part of the *building thermal envelope* and contains insulation entirely above the roof deck. New skylights are not required to be provided as part of a roof replacement where the existing building did not have skylights. Where new skylights are installed at the option of the owner as part of the roof replacement, they shall meet Section C503.3.3.

Section R402.4.1.1, Installation, is amended to read as follows:

R402.4.1.1 Installation. The components of the *building thermal envelope* as listed in Table R402.4.1.1 shall be installed in accordance with the manufacturer's instructions and the criteria listed in Table R402.4.1.1, as applicable to the method of construction. [~~Where required by the *code official*, an~~] An approved third party shall inspect all components and verify compliance. Insulation letters shall not be submitted to the *Building Official* prior to the inspection being performed and shall be submitted on a form approved by the *Building Official*.

Section R402.4.1.2, Testing, is amended by amending the first paragraph to read as follows. All other language in Section C402.4.1.2 remains:

R402.4.1.2 Testing. The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding five air changes per hour in Climate Zones 1 and 2, and three air changes per hour in Climate Zones 3 through 8. Testing shall be conducted in accordance with ASTM E 779 or ASTM E 1827_and reported at a pressure of 0.2 inch w.g. (50 Pascals). Testing [~~Where required by the *code official*, testing~~] shall be conducted by an *approved* third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the Building Official [~~*code official*~~]. Testing shall be performed at any time after creation of all penetrations of the *building thermal envelope*.

Section R402.6, Radiant Barrier, is added to read as follows:

R402.6 Radiant Barrier. In new dwellings, a roof radiant barrier with an emittance of 0.10 or less as tested in accordance with ASTM C-1371 or ASTM E-408 is required above conditioned spaces. The radiant barrier shall be installed according to the manufacturer's instructions.

Exceptions:

1. Roofs covered with materials that have a solar reflectance of 0.4 or greater.
2. Residential buildings with sealed attics such as foam type insulation or similar.
3. Residential buildings with all mechanical equipment and all ductwork located wholly within the conditioned space.

R403.3.1 Insulation (Prescriptive), is amended by adding a second exception as follows.

R403.3.1 Insulation (Prescriptive). Supply and return ducts in attics shall be insulated to a minimum of R-8 where 3 inches (76 mm) in diameter and greater and R-6 where less than 3 inches (76 mm) in diameter. Supply and return ducts in other portions of the building shall be insulated to a minimum of R-6 where 3 inches (76 mm) in diameter or greater and R-4.2 where less than 3 inches (76 mm) in diameter.

Exceptions:

1. Ducts or portions thereof located completely inside the *building thermal envelope*.
2. Supply and return ducts in attics shall be insulated to a minimum of R-6 where 3 inches (76 mm) in diameter and greater, where the seasonal energy efficiency ratio (SEER) of the installed cooling equipment is higher than the minimum required by federal law for climate zone 2.

Section R403.5.1.1, Circulation systems, is amended to read as follows:

R403.5.1.1 Circulation systems. Heated water circulation systems shall be provided with a circulation pump. The system return pipe shall be a dedicated return pipe or a cold water supply pipe. Gravity and thermo-syphon circulation systems shall be prohibited. Controls for circulating hot water system pumps shall comply with one of the following:

1. Controls for circulating hot water system pumps shall start the pump based on the identification of a demand for hot water within the occupancy. The controls shall automatically turn off the

pump when the water in the circulation loop is at the desired temperature and when there is no demand for hot water.

2. Controls for circulating hot water system pumps shall include a timer clock switch operating pumps based on time of day/night. Controls shall also include a return water temperature sensor switch to pause the re-circulating pump whenever the return water is hot.

Table R406.4, Maximum energy Rating Index, is amended as follows:

TABLE R406.4
MAXIMUM ENERGY RATING INDEX

CLIMATE ZONE	ENERGY RATING INDEX
1	52
2	59 [~~52~~]]
3	51
4	54
5	55
6	54
7	53
8	53

Sections R501.6, Historic buildings, is amended to read as follows:

R501.6 Historic buildings. No provisions of this code relating to the construction, *repair, alteration,* restoration and movement of structures, and *change of occupancy* shall be mandatory for *historic buildings*. [~~provided a report has been submitted to the *code official* and signed by a *registered design professional* or a representative of the State Historic Preservation Office or the historic preservation authority having jurisdiction, demonstrating that compliance with that provision would threaten, degrade or destroy the historic form, fabric or function of the building~~.]

SECTION 36. Article XII. Licensing and Registration, section 10-113, Electrical contractors and electrical sign contractors, installers, maintenance electricians; licenses and registration is amended with alterations shown as underlined text and deletions shown as bracketed [~~strikethroughs~~].

ARTICLE XII. LICENSING AND REGISTRATION

Sec. 10-113. Electrical contractors and electrical sign contractors, installers, maintenance electricians; licenses and registrations.

(p) Master electrician and master sign electrician.

(1) *Limitation on multiple business affiliations.* Any master electrician or master sign electrician affiliated with a business as herein provided shall not engage in the operation of a second electrical or electrical sign business, under the provisions of this Code, unless it is under the same name and insurance of the first business. Any permit issued to a business must be for work being done by that business. Any master electrician or master sign electrician obtaining permits for any person, business or entity will be notified to appear before the Building Official for consideration of a complaint.

SECTION 37. Chapter 10, section 10-114, San Antonio mechanical license, subsection (b) Certificate of insurance is amended to read as follows:

Sec. 10-114. San Antonio mechanical license.

Any person performing any type of mechanical work in the city shall have in his possession a valid and authenticated mechanical license issued by the *Building Official* or a valid mechanical license issued by the state, except as otherwise provided under subsection 10-114(g) or as exempted under federal or state law.

(b) *Certificate of insurance.* Any person applying for a master mechanical license or mechanical permit shall present a certificate of insurance issued by an insurance company authorized to do business in the state, certifying that the applicant is insured to the limits of at three hundred thousand dollars ($300,000.00) public liability insurance per occurrence and three hundred thousand dollars ($300,000.00) property damage liability insurance per occurrence. Insurance amount requirements for State issued Air Conditioning and Refrigeration Licenses class A or B of any endorsement shall be regulated by the Texas Department of Licensing and Regulation (TDLR) section 75.40 of the Administrative Rules.

SECTION 38. Chapter 10, section 10-115, Residential building contractor registration, subsection (e) (1) a. – c. and (k) (2) a. a., b. is amended to read as follows:

Sec. 10-115. Residential building contractor registration.

(e) Application procedures; requirements.

(1) An applicant for an original certificate of registration or renewal must submit an application to the *Building Official* on a form established by the department. Each applicant must fully disclose in the application whether the applicant has:

a. Entered a plea of guilty or nolo contendre (no contest) to:

a. any felony charge, or

b. a misdemeanor involving moral turpitude;

b. Been convicted of:

a. a felony, or

b. a misdemeanor involving moral turpitude and the time for appeal has elapsed or the conviction has been affirmed on appeal;

c. Entered a plea of guilty or nolo contendre (no contest) or been convicted of:

a. any felony, or

b. misdemeanor arising out of a violation of the building code or local amendments thereto in the state whether or not said violation involves moral turpitude;

(k) Cancellation and suspension of registration; appeals.

(2) The *Building Official* may also administratively cancel or suspend a certificate of registration after a hearing before the *Building Official* for any one or more of the following reasons:

a. Conviction or entering a plea of guilty or nolo contendre (no contest) by the registered person or entity of:

a. a felony, or

b. misdemeanor involving moral turpitude;

SECTION 39. Chapter 10, section 10-116, Home improvement contractor registration, subsections (b) (2) a. – c. is amended to read as follows:

Sec. 10-116. Home improvement contractor registration.

(b) Application procedures.

(2) Each applicant must fully disclose in the application whether the applicant has:

a. Entered a plea of guilty or nolo contendre (no contest) to:

a. any felony charge, or

b. a misdemeanor involving moral turpitude;

b. Been convicted of:

a. a felony, or

b. a misdemeanor involving moral turpitude and the time for appeal has elapsed or the conviction has been affirmed on appeal;

c. Entered a plea of guilty or nolo contendre (no contest) or been convicted of:

a. a felony, or

b. misdemeanor arising out of a violation of the building code or local amendments thereto in the state whether or not said violation involves moral turpitude;

Sec. 10-117. Irrigation systems and irrigators.

(a) *License required.* An irrigation contractor is required to hold a license issued under V.T.C.A., Water Code ch. 37 and V.T.C.A., Occupations Code § 1903.251. [~~Chapter 37 of the Texas Water Code and the Texas Occupations Code § 1903.251~~.]

SECTION 40. All previous provisions of the 2012 International Fuel Gas Code, International Building Code, International Existing Building Code, International Residential Code For One-and Two-Family Dwellings, International Plumbing Code, and International Mechanical Code as well as the 2011 National Electrical Code and the 2009 International Energy Conservation Code with local amendments as adopted by the City of San Antonio, Texas, remain in full force and effect during the period for which they were enacted.

SECTION 41. Should any Article, Section, Part, Paragraph, Sentence, Phrase, Clause, or Word of this ordinance, or any appendix, for any reason be held illegal, inoperative, or invalid, or if any exception to or limitation upon any general provision in this Ordinance be held to be unconstitutional or invalid or ineffective, the remainder shall, nevertheless, stand effective and valid as if it had been enacted and ordained without the portion held to be unconstitutional or invalid or ineffective.

SECTION 42. There is no financial impact as a result of the passage of this ordinance.

SECTION 43. No other provision of the City Code is amended by this Ordinance. All other provisions remain in effect.

SECTION 44. The City Clerk for the City of San Antonio is directed to publish notice of this ordinance in a newspaper published in the City of San Antonio, Texas, as required by Article 2, Section 17 of the City Charter of San Antonio, Texas.

SECTION 45. The publishers of the City Code of San Antonio are authorized to amend said Code to reflect the changes adopted in this Ordinance, to correct typographical errors and to index, format and number paragraphs to conform to the existing code.

SECTION 46. All of the referenced model codes and corresponding local amendments identified in this Ordinance are effective on the 1st day of May, 2015, save for the International Energy Conservation Code (IECC) and local amendments which are effective ninety (90) days after the date of the Department of Energy's COMcheck and REScheck design and review software publication, or the 1st day October, 2015.

PASSED AND APPROVED this 29th day of January, 2015.

M A Y O R

Ivy Taylor

ATTEST:

Leticia M. Vacek, City Clerk

APPROVED AS TO FORM:

for

Martha G. Sepeda, Acting City Attorney

Agenda Item:	**15A (in consent vote: 14, 15A, 15B)**
Date:	01/29/2015
Time:	12:14:49 PM
Vote Type:	Motion to Approve
Description:	An Ordinance amending Chapter 10 of the City Code of San Antonio, Texas, by adopting the 2015 editions of the International Building Code, the International Residential Code for One- and Two-Family Dwellings, the International Plumbing Code, the International Mechanical Code, the International Energy Conservation Code, the International Existing Building Code, the International Fuel Gas Code, the 2014 National Electrical Code, and corresponding local amendments.
Result:	Passed

Voter	Group	Not Present	Yea	Nay	Abstain	Motion	Second
Ivy R. Taylor	Mayor		x				
Roberto C. Trevino	District 1		x				
Alan Warrick	District 2		x				
Rebecca Viagran	District 3		x				
Rey Saldaña	District 4		x				
Shirley Gonzales	District 5		x				
Ray Lopez	District 6		x				
Cris Medina	District 7		x				
Ron Nirenberg	District 8		x			x	
Joe Krier	District 9		x				
Michael Gallagher	District 10		x				x