ORDINANCE NO. 404

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF BANDERA TEXAS AMENDING CHAPTER 3, BUILDING REGULATIONS, ARTICLE 3.02 TECHNICAL AND CONSTRUCTION CODES AND STANDARDS OF THE CODE OF ORDINANCES, BY ADOPTING THE 2018 INTERNATIONAL BUILDING CODE, WITH AMENDMENTS; ADOPTING THE 2018 INTERNATIONAL RESIDENTIAL CODE, WITH AMENDMENTS; ADOPTING THE 2018 INTERNATIONAL MECHANICAL CODE, WITH AMENDMENTS; ADOPTING THE 2018 INTERNATIONAL PLUMBING CODE, WITH AMENDMENTS; ADOPTING THE 2018 INTERNATIONAL FUEL/GAS CODE, WITH AMENDMENTS; ADOPTING THE 2018 INTERNATIONAL EXISTING BUILDING CODE, WITH AMENDMENTS; ADOPTING THE 2018 INTERNATIONAL SWIMMING POOL AND SPA CODE, WITH AMENDMENTS; DOPTING THE 2018 INTERNATIONAL ENERGY CONSERVATION CODE AND ADOPTING THE 2017 EDITION OF THE NATIONAL ELECTRICAL CODE; REPEALING ALL PRIOR ORDINANCES IN CONFLICT HEREWITH; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the Texas Local Governmental Code empowers the cities to enact codes and regulations and provide for their administration, enforcement, and amendment for the various elements of construction and development with the city; and

WHEREAS, the regulation of construction and development through the adoption of standardized codes with local amendments by the City of Bandera (the "City") is necessary to protect the public health, safety and welfare; and

WHEREAS, the City Council of the City desires to protect the safety and welfare of the citizens of the City through regulation of construction activities and safety compliance in the City; and

WHEREAS, the City has previously adopted multiple international codes; and

WHEREAS, more recent international codes have been adopted by the International Code Council; and

WHEREAS, City Staff has undertaken a review of the newly adopted international codes as compared to the City's existing codes; and

WHEREAS, City Staff recommends adopting the international codes provided for herein along with certain local amendments; and

WHEREAS, the City Council has determined that the regulation of construction activities in the City, as set forth herein, is in the best interests of the City.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF BANDERA, TEXAS:

Section 1. Chapter 3 of the City Code of the City of Bandera, Texas is hereby amended as set forth in the attached Exhibit A, incorporated herein.

Section 2. Any person, firm, corporation or agent who shall violate a provision of the amended Chapter shall be guilty of a misdemeanor, and such persons shall be considered guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this chapter is committed or continued, and upon conviction of any such violation such person shall be punished by a fine of not more than $2,000.00 for each offense, in accordance with Section 1.01.009 of the City of Bandera Code of Ordinances.

Section 3. The recitals contained in the preamble hereof are hereby found to be true, and such recitals are hereby made a part of this Ordinance for all purposes and are adopted as a part of the judgment and findings of the Council.

Section 4. All ordinances and codes, or parts thereof, which are in conflict or inconsistent with any provision of this Ordinance are hereby repealed to the extent of such conflict, and the provisions of this Ordinance shall be and remain controlling as to the matters resolved herein.

Section 5. That all rights and privileges of the City are expressly saved as to any and all violations of the provision of any ordinances repealed by this ordinance which have accrued at the time of the effective date of this Ordinances; and, as to such accrued violation and all pending litigation, both civil and criminal, whether pending in court or not, under such Ordinances, same shall not be affected by this Ordinance but may be prosecuted until final disposition by the courts.

Section 6. If any provision of this Ordinance or the application thereof to any person or circumstance shall be held to be invalid, the remainder of this Ordinance and the application of such provision to other persons and circumstances shall nevertheless be valid, and the City hereby declares that this Ordinance would have been enacted without such invalid provision.

Section 7. It is officially found, determined, and declared that the meeting at which this Ordinance is adopted was open to the public and public notice of the time, place, and subject matter of the public business to be considered at such meeting, including this Ordinance, was given, all as required by Chapter 551, as amended, Texas Government Code.

Section 8. This Ordinance shall be effective upon the date of final adoption hereof and any publication required by law.

PASSED, ADOPTED, APPROVED, AND EFFECTIVE THE 19TH DAY of APRIL, 2022.

CITY OF BANDERA, TEXAS

By: Suzanne Schauman
Suzanne Schauman, Mayor

ATTEST:

Jill Shelton
Jill Shelton, City Secretary

EXHIBIT A

CHAPTER 3 BUILDING REGULATIONS OF THE CITY OF BANDERA CITY CODE IS HEREBY AMENDED AS SET FORTH BELOW:

[ADDITIONS ARE UNDERLINED AND DELETIONS ARE ~~LINED THRU~~]

ARTICLE 3.02 TECHNICAL AND CONSTRUCTION CODES AND STANDARDS

Division 1. Generally

Sec. 3.02.001 Enforcement officers

Within the codes adopted by this article, when reference is made to the duties of a certain official named therein, that designated official of the city who has the duties corresponding to those of the named official in said code shall be deemed to be the responsible official insofar as enforcing the provisions of said code is concerned. (Ordinance 198 adopted 12/9/99)

Sec. 3.02.002 Local amendments

Any reference to a Board of Appeals within any referenced code in this Article shall refer to the Board of Appeals as set forth below. Any limitation of authority set forth in any individual referenced code in this Article is repealed and replaced by the following local amendment regarding the Board of Appeals.

International Building Code appendix B (entitled "appeals board") is amended to read as follows:

APPENDIX B - BOARD OF APPEALS

SECTION B101 GENERAL

B101.1 Application. The application for appeal shall be filed on a form obtained from the building official within 20 days after the notice was served.

B101.2 Membership of board.

(1) The members of the city council shall serve as the board of appeals.

(2) The building official shall be an ex-officio member of said board but shall have no vote on any matter before the board.

B101.2.1 Alternate members. This section is intentionally deleted.

B101.2.2 Qualifications. This section is intentionally deleted.

B101.2.3 Rules and procedures. The board shall follow the same rules and procedures that is followed by the city council in deciding appeals of administrative decisions as the board of adjustment under chapter 211 of the Texas Local Government Code and is authorized to establish such other policies and procedures reasonably necessary to carry out its duties as the board of appeals.

B101.2.4 Chairperson. The mayor shall serve as the chairperson of the board of appeals.

B101.2.5 Disqualification of member. A member shall not hear an appeal in which that member has a personal, professional or financial interest.

B101.2.6 Secretary. The city secretary or designee shall serve as secretary to the board of appeals. The secretary shall file a detailed record of all proceedings in the office of the city secretary.

B101.2.7 Compensation of members. Members shall receive no compensation for service on the board of appeals.

B101.3 Notice of meetings. The board of appeals shall meet upon notice from the chairperson, within 10 days of the filing of an appeal or at stated periodic meetings. Notice of the meeting to the public must comply with the requirements of the Texas Open Meetings Act.

B101.3.1 Open hearing. All hearings before the board of appeals shall be open to the public and the conduct of meetings must comply with the Texas Open Meetings Act. The appellant, the appellant's representative, the building official and any person whose interests are affected shall be given an opportunity to be heard.

B101.3.2 Procedure. The board of appeals shall adopt and make available to the public through the secretary procedures under which a hearing will be conducted. The procedures shall not require compliance with strict rules of evidence, but shall mandate that only relevant information be received.

B101.3.3 Postponed hearing. When all members of the board members are not present to hear an appeal, either the appellant or the appellant's representative shall have the right to request a postponement of the hearing.

B101.4 Board decision. The concurring vote of 75% of the members of the board is necessary to reverse and order, requirement, decision or determination of the building official. The board, based upon the evidence and recommendations of the building official, may accept any reasonable alternatives that meet the spirit and intent of the code, do not jeopardize the health safety and welfare of the public, and that the Board deems sufficient and appropriate for the community standards of Bandera.

B101.4.1 Resolution. The decision of the board shall be by resolution. Certified copies shall be furnished to the appellant and to the building official. The form of the resolution shall be in substantial compliance with exhibit "B" attached to [Ordinance 343].

B101.4.2 Administration. The building official shall take immediate action in accordance with the decision of the board.

(Ordinance 343 adopted 1/18/18)

Secs. 3.02.003–3.02.050 Reserved

Division 2. Building Code

Sec. 3.02.051 Adopted

Except as provided for elsewhere in the city's code, the International Building Code, ~~2003~~ 2018 edition~~, as it may be amended hereafter,~~ is hereby adopted as the building code of the city for regulating the erection, construction, enlargement, alteration, repair, moving, removal, demolition, conversion, occupancy, equipment, use, height, area and maintenance of all buildings or structures in the city, and providing for issuance of permits and collection of fees for such permits, and all the regulations, provisions, conditions and terms of such publication referenced in this section. ~~all of which are on file in the office of the building official, are referred to, adopted and made a part of this division as if fully set out in this division. If and when the 2003 edition of the code is amended or replaced by subsequent editions of the code, those subsequent editions shall be the building code of the city without the necessity of amending this chapter. All references in such code to boards of appeal shall refer to the board of adjustment of the city. (Ordinance 315 adopted 10/16/14)~~

Sec. 3.02.052 Review by the building official or planning and zoning commission

(a) The city administrator or designee shall fulfill the duties of the building official as defined and established in the International Building Code, as amended.

(b) All building permit applications for the erection, construction, enlargement, alteration, repair; moving, removal, demolition, conversion, occupancy, equipment, use, height, area and maintenance of all buildings or structures in the city must be submitted to the building official for review and recommendations. Applications must include construction documents, including the plans and specifications for the project, a drawing of the property showing the location of the structure, and a drawing of the overall construction project.

(c) After reviewing the application and construction documents and determining whether or not a zoning or variance request is needed, the building official shall then follow the procedure for permits set forth in the International Building Code, as amended, if not further administrative review or action is necessary.

~~(d) The building official, in his/her discretion may request planning and zoning commission review of any building permit submittal when in the discretion of the building official the collective expertise of the planning and zoning commission would be beneficial to the building official or permit applicant.~~

~~(Ordinance 331 adopted 5/15/17)~~

Sec. 3.02.053 Local Amendments

The following sections, paragraphs, and sentences of the *2018 International Building Code* are hereby amended as follows: Standard type is text from the IBC. Underlined type is text inserted. ~~Lined through type is deleted text from IBC.~~

A. Section 101.4; change to read as follows:

101.4 Referenced codes. The other codes listed in Sections 101.4.1 through 101.4.8 and referenced elsewhere in this code, when specifically adopted, shall be considered part of the requirements of this code to the prescribed extent of each such reference. Whenever

amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the amendments as well. Any reference to NFPA 70 or the Electrical Code shall mean the Electrical Code as adopted.

B. Section 101.4.8; add the following:

101.4.8 Electrical. The provisions of the Electrical Code shall apply to the installation of electrical systems, including alterations, repairs, replacement, equipment, appliances, fixtures, fittings and appurtenances thereto.

C. Section 103 and 103.1; amend to insert the Department Name

~~*DEPARTMENT OF BUILDING SAFETY*~~ *[INSERT OFFICIAL BUILDING DEPARTMENT NAME OF JURISDICTION]*

103.1 Creation of enforcement agency. The ~~Department of Building Safety~~ [INSERT OFFICIAL BUILDING DEPARTMENT NAME OF JURISDICTION] is ~~here~~by created and the official in charge thereof shall be known as the *building official*.

D. Section 105.2 Work exempt from permit; under sub-title entitled "Building" delete items 1, 2, 10 and 11 and re-number as follows:

Building:

~~1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 120 square feet (11 m2).~~

~~2. Fences not over 7 feet (1829 mm) high.~~

~~3.~~ 1. (Remainder Unchanged)

~~4.~~ 2. (Remainder Unchanged)

~~5.~~ 3. (Remainder Unchanged)

~~6.~~ 4. (Remainder Unchanged)

~~7.~~ 5. (Remainder Unchanged)

~~8.~~ 6. (Remainder Unchanged)

~~9.~~ 7. (Remainder Unchanged)

~~10. Shade cloth structures constructed for nursery or agricultural purposes, not including service systems.~~

~~11.~~ 8. (Remainder Unchanged)

~~12.~~ 9. (Remainder Unchanged)
~~13.~~ 10. (Remainder Unchanged)

(Reason: Items deleted are for one- and two-family dwellings regulated by the International Residential Code. Accessory structures, fences and shade cloth structures would require a permit for commercial properties to ensure compliance with local ordinance, egress, accessibility, flame spread of fabric, wind/snow design load, etc.)

E. Section 109; add Section 109.7 to read as follows:

109.7 Re-inspection Fee. A fee as established by city council resolution may be charged

when:

1. The inspection called for is not ready when the inspector arrives;

2. No building address or permit card is clearly posted;

3. City approved plans are not on the job site available to the inspector;

4. The building is locked or work otherwise not available for inspection when called;

5. The job site is red-tagged twice for the same item;

6. The original red tag has been removed from the job site.

7. Failure to maintain erosion control, trash control or tree protection.

Any re-inspection fees assessed shall be paid before any more inspections are made on that job site.

(Reason: This fee is not a fine or penalty but is designed to compensate for time and trips when inspections are called for when not ready.)

F. Section 109; add Section 109.8, 109.8.1, 109.8.2 and 109.9 to read as follows:

109.8 Work without a permit.

109.8.1 Investigation. Whenever work for which a permit is required by this code has been commenced without first obtaining a permit, a special investigation shall be made before a permit may be issued for such work.

109.8.2 Fee. An investigation fee, in addition to the permit fee, shall be collected whether or not a permit is subsequently issued. The investigation fee shall be equal to the amount of the permit fee required by this code or the city fee schedule as applicable. The payment of such investigation fee shall not exempt the applicant from compliance with all other provisions of either this code or the technical codes nor from penalty prescribed by law.

109.9 Unauthorized cover up fee. Any work concealed without first obtaining the required inspection in violation of Section 110 shall be assessed a fee as established by the city fee schedule.

(Reason: This fee is not a fine or penalty but is designed to compensate for time and to remove incentive to attempt to evade permits and code compliance. Text taken from former Uniform Administrative Code.)

G. Section 110.3.5; Lath, gypsum board and gypsum panel product inspection; Delete exception

~~Exception : Gypsum board and gypsum panel products that are not part of a fire resistance rated assembly or a shear assembly.~~

(Reason: Lath or gypsum board inspections are not typically performed in this area.)

H. Section 202; amend definition of Ambulatory Care Facility as follows:

AMBULATORY CARE FACILITY. Buildings or portions thereof used to provide medical, surgical, psychiatric, nursing or similar care on a less than 24-hour basis to individuals who are rendered incapable of self-preservation by the services provided ~~or staff has accepted responsibility for care recipients already incapable~~. This group may include but not be limited to the following:

- Dialysis centers
- Sedation dentistry
- Surgery centers
- Colonic centers
- Psychiatric centers

(Reason: To clarify the range of uses included in the definition. [Explanatory note related to Ambulatory Care Facilities: This group of uses includes medical or dental offices where persons are put under for dental surgery or other services. Section 903.2.2 will now require such uses to be sprinklered if on other than the floor of exit discharge or if four or more persons are put under on the level of exit discharge. Recommend (1.) jurisdictions document any pre-existing non-conforming conditions prior to issuing a new C of O for a change of tenant and, (2.) On any medical or dental office specify on C of O the maximum number of persons permitted to be put under general anesthesia. It is recommended that before a Certificate of Occupancy is issued, a letter of intended use from the business owner shall be included and a C of O documenting the maximum number of care recipients incapable of self preservation allowed.)

I. Section 202; add definition of Assisting Living Facilities to read as follows.

ASSISTED LIVING FACILITIES. A building or part thereof housing persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment which provides personal care services. The occupants are capable of responding to an emergency situation without physical assistance from staff.

(Reason: The code references Assisted Living facilities and definition was deleted.)

J. Section 202; ~~add~~ amend definition of "Repair Garage" as follows:

REPAIR GARAGE. A building, structure or portion thereof used for servicing or repairing motor vehicles. This occupancy shall also include garages involved in minor repair, modification and servicing of motor vehicles for items such as lube changes, inspections, windshield repair or replacement, shocks, minor part replacement and other such minor repairs.

(Reason: The code references aligns with fire code.)

K. Section 202; amend definition of SPECIAL INSPECTOR to read as follows:

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 as having the competence necessary to inspect a particular type of construction requiring special inspection.

(Reason: The registered design professional in responsible charge should be included.)

L. Section 202; amend definition to read as follows:

HIGH-RISE BUILDING. A building with an occupied floor located more than ~~75~~ 55 feet ~~(22 860 mm)~~ (16 764 mm) above the lowest level of fire department vehicle access.

(Reason: To define high-rise, as it influences sprinkler requirement thresholds based on the fire fighting capabilities of a jurisdiction.)

M. Section 303.1.3; add a sentence to read as follows:

303.1.3 Associated with Group E occupancies. A room or space used for assembly purposes that is associated with a Group E occupancy is not considered a separate occupancy, ~~E~~xcept when applying the assembly requirements of Chapters 10 and 11.

(Reason: To clarify that egress and accessibility requirements are applicable for assembly areas, i.e. cafeteria, auditoriums, etc.)

N. Section 307.1.1; add the following sentence to Exception 4:

4. Cleaning establishments… *{Text unchanged}* …with Section 707 or 1-hour horizontal assemblies constructed in accordance with Section 711 or both. See also IFC Chapter 21, Dry Cleaning Plant provisions.

(Reason: To call attention to detailed requirements in the Fire Code.)

O. Section 403.1, Exception 3; change to read as follows:

3. The open air portion of a building *[remainder unchanged]*

(Reason: To clarify enclosed portions are not exempt.)

P. Section 403.3, Exception; delete item 2.

(Reason: To provide adequate fire protection to enclosed areas.)

Q. Section 406.3.3.1 Carport separation; add sentence to read as follows:

A fire separation is not required between a Group R-2 and U carport provided that the carport is entirely open on all sides and that the distance between the two is at least 10 feet (3048 mm).

(Reason: Simplifies the fire separation distance and eliminates the need to obtain opening information on existing buildings when adding carports in existing apartment complexes. Consistent with legacy codes in effect in region for years and no record of problems with car fires spreading to apartments as a result.)

R. Table 506.2; delete sentence from table

~~I. The maximum allowable area for a single-story non-sprinklered Group U greenhouse is permitted to be 9000 square feet or the allowable area shall be permitted to comply with Table C102.1 of Appendix C.~~

(Reason: To eliminate the need for Appendix C adoption and remain consistent with 6000 sq. ft. sprinklering provision.)

S. Section 506.3.1; add sentence to read as follows:

506.3.1 Minimum percentage of perimeter. [Existing Text remains]

In order to be considered as accessible, if not in direct contact with a street or fire lane, a minimum 10-foot wide pathway meeting fire department access from the street or approved fire lane shall be provided.

(Reason: To define what is considered accessible. Consistent with regional amendment to IFC 504.1.)

T. Section 602.1.1; add sentence to read as follows:

602.1.1 Minimum Requirements. [Existing Text to remain]

Where a building contains more than one distinct type of construction, the building shall comply with the most restrictive area, height, and stories, for the lesser type of construction or be separated by fire walls.

(Reason: To create definite language that requires separation between dissimilar building types.)

U. Section 708.4.2; change sentence to read as follows:

708.4.2 Fireblocks and draftstops in combustible construction. *[Body of text unchanged]*

Exceptions:

1. Buildings equipped with an automatic sprinkler system installed throughout in accordance with Section 903.3.1.1, or in accordance with Section 903.3.1.2 provided that sprinkler protection is provided in the space between the top of the fire partition and the underside of the floor or roof sheathing, deck or slab above as required for systems complying with Section 903.3.1.1. Portions of buildings containing concealed spaces filled with noncombustible insulation as permitted for sprinkler omission shall not apply to this exception for draftstopping. *[Remainder unchanged]*

Reason: (The most common exception used to eliminate the need for sprinklers in concealed spaces of combustible construction is to fill the space with noncombustible insulation. This exception was changed in 2010 to permit a 2-inch air gap at the top of the filled space. A space compliant with the permitted omission above would allow hot gas and smoke to spread unimpeded throughout a building not provided with draftstopping. For this reason, omission of sprinklers permitted in accordance with NFPA 13 referenced standard should not be permitted with IBC exception requiring draftstopping in combustible construction.)

V. Section 718.3; change sentence to read as follows:

718.3 Draftstopping in floors. *[Body of text unchanged]*

Exceptions: Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1. and provided that in combustible construction, sprinkler protection is provided in the floor space.

(Reason: To remain consistent with changes in 708.4.2 code.)

W. Section 718.4; change sentence to read as follows:

718.4 Draftstopping in attics. *[Body of text unchanged]*

Exceptions: Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and provided that in combustible construction, sprinkler protection is provided in the attic space.

(Reason: To remain consistent with changes in 708.4.2 code.)

X. Section 901.6.1; add Section 901.6.1.1 to read as follows:

901.6.1.1 Standpipe Testing. Building owners/managers must maintain and test standpipe systems as per NFPA 25 requirements. The following additional requirements shall be applied to the testing that is required every 5 years:

1. The piping between the Fire Department Connection (FDC) and the standpipe shall be backflushed or inspected by approved camera when foreign material is present or when caps are missing, and also hydrostatically tested for all FDC's on any type of standpipe system. Hydrostatic testing shall also be conducted in accordance with NFPA 25 requirements for the different types of standpipe systems.

2. For any manual (dry or wet) standpipe system not having an automatic water supply capable of flowing water through the standpipe, the tester shall connect hose from a fire hydrant or portable pumping system (as approved by the *fire code official*) to each FDC, and flow water through the standpipe system to the roof outlet to verify that each inlet connection functions properly. Confirm that there are no open hose valves prior to introducing water into a dry standpipe. There is no required pressure criteria at the outlet. Verify that check valves function properly and that there are no closed control valves on the system.

3. Any pressure relief, reducing, or control valves shall be tested in accordance with the requirements of NFPA 25. All hose valves shall be exercised.

4. If the FDC is not already provided with approved caps, the contractor shall install such caps for all FDC's as required by the *fire code official*.

5. Upon successful completion of standpipe test, place a blue tag (as per Texas Administrative Code, Fire Sprinkler Rules for Inspection, Test and Maintenance Service (ITM) Tag) at the bottom of each standpipe riser in the building. The tag shall be check-marked as "Fifth Year" for Type of ITM, and the note on the back of the tag shall read "5 Year Standpipe Test" at a minimum.

6. The procedures required by Texas Administrative Code Fire Sprinkler Rules with regard to Yellow Tags and Red Tags or any deficiencies noted during the testing,

including the required notification of the local Authority Having Jurisdiction (*fire code official*) shall be followed.

7. Additionally, records of the testing shall be maintained by the owner and contractor, if applicable, as required by the State Rules mentioned above and NFPA 25.

8. Standpipe system tests where water will be flowed external to the building shall not be conducted during freezing conditions or during the day prior to expected night time freezing conditions.

9. Contact the *fire code official* for requests to remove existing fire hose from Class II and III standpipe systems where employees are not trained in the utilization of this firefighting equipment. All standpipe hose valves must remain in place and be provided with an approved cap and chain when approval is given to remove hose by the *fire code official.*

(Reason: Increases the reliability of the fire protection system and re-emphasizes the requirements of NFPA 25 relative to standpipe systems, as well as ensuring that FDC connections are similarly tested/maintained to ensure operation in an emergency incident.)

Y. Section 903.1.1; change to read as follows:

903.1.1 Alternative Protection. Alternative automatic fire-extinguishing systems complying with Section 904 shall be permitted ~~instead of~~ in addition to automatic sprinkler protection where recognized by the applicable standard ~~and~~, or as approved by the fire code official.

(Reason: Such alternative systems do not provide the reliability of automatic sprinkler protection. Most gaseous type systems are highly susceptible to open doors, ceiling or floor tile removal, etc. However, an applicant could pursue an Alternate Method request to help mitigate the reliability issues with these alternative systems with the fire code official if so desired, or there may be circumstances in which the fire code official is acceptable to allowing an alternate system in lieu of sprinklers, such as kitchen hoods or paint booths.)

Z. Section 1010.1.9.5 Bolt Locks; amend exceptions 3 and 4 as follows:

Exceptions:
3. Where a pair of doors serves an occupant load of less than 50 persons in a Group B, F, M or S occupancy. (remainder unchanged)
4. Where a pair of doors serves a Group A, B, F, M or S occupancy (remainder unchanged)

(Reason: Application to M occupancies reflects regional practice; No. 4 expanded to Group A due to it being a similar scenario to other uses; No. 4 was regional practice.)

AA. Section 1020.1 Construction; add exception 6 to read as follows:

6. In group B occupancies, corridor walls and ceilings need not be of fire-resistive construction within a single tenant space when the space is equipped with approved automatic smoke-detection within the corridor. The actuation of any detector must activate self-annunciating alarms audible in all areas within the corridor. Smoke detectors must be connected to an approved automatic fire alarm system where such system is provided.

(Reason: Regionally accepted alternate method.)

BB. Section 1029.1.1.1 Spaces under grandstands and bleachers; delete this section.

(Reason: Unenforceable.)

CC. Section 1101.1 Scope; add exception to Section 1101.1 as follows:

Exception: Components of projects regulated by and registered with Architectural Barriers Division of Texas Department of Licensing and Regulation shall be deemed to be in compliance with the requirements of this chapter.

(Reason: To accommodate buildings regulated under state law. Further clarified in 2015 to mean components that are specifically addressed by TDLR shall be exempt.)

DD. Section 2901.1; add a sentence to read as follows:

[P] 2901.1 Scope. {*existing text to remain*} The provisions of this Chapter are meant to work in coordination with the provisions of Chapter 4 of the International Plumbing Code. Should any conflicts arise between the two chapters, the Building Official shall determine which provision applies.

(Reason: Gives building official discretion.)

EE. Section 2902.1; add a second paragraph to read as follows:

In other than E Occupancies, the minimum number of fixtures in Table 2902.1 may be lowered, if requested in writing, by the applicant stating reasons for a reduced number and approved by the Building Official.

(Reason: To allow flexibility for designer to consider specific occupancy needs.)

FF. Table 2902.1; add footnote g to read as follows:

g. Drinking fountains are not required in M Occupancies with an occupant load of 100 or less, B Occupancies with an occupant load of 25 or less, and for dining and/or drinking establishments.

(Reason: Adjustment meets the needs of specific occupancy types.)

GG. Section 3001.2 Emergency Elevator Communication Systems for the deaf, hard of hearing and speech impaired; delete this section.

HH. Section 3005.4 Machine rooms, control rooms, machinery spaces and control spaces; delete text as follows:

~~Elevator machine rooms, control rooms, control spaces and machinery spaces outside of but attached to a hoistway that have openings into the hoistway shall be enclosed with fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both.~~

Revise text to read:

Elevator machine rooms, control rooms, control spaces and machinery spaces shall be enclosed with fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both.

(Remainder unchanged)

II. Section 3005.4 Machine rooms, control rooms, machinery spaces and control spaces; Delete exceptions and add two new exceptions to Section 3005.4 as follows:

Exceptions:

1. Elevator machine rooms, control rooms, machinery spaces and control spaces completely located within atriums shall not require enclosure protection.

2. Elevator machine rooms, control rooms, machinery spaces and control spaces in open or enclosed parking garages that serve only the parking garage, shall not require enclosure protection.

(Reason: This amendment eliminates the Exceptions to Section 3005.4 such that passive enclosures for these areas are to be provided and maintained. The fire rating of these enclosures is permitted to be omitted by the above added exceptions where allowed by other provisions of the code such as in atriums and parking structures. See companion change to eliminate fire sprinklers to eliminate the need for shunt trip system.)

Secs. 3.02.054–3.02.100 Reserved

Division 3. Residential Code

Sec. 3.02.101 Adopted

The International Residential Code for One- and Two-Family Dwellings, ~~2003~~ 2018 edition, ~~as it may be amended hereafter~~, is hereby adopted as the residential building code for one and two family dwelling units within the city.~~building code of the city for regulating the erection, construction, enlargement, alteration, repair, moving, removal, demolition, conversion, occupancy, equipment, use, height, area and maintenance of all buildings or structures in the city, and providing for issuance of permits and collection of fees for such permits, and all the regulations, provisions, conditions and terms of such publication referenced in this section, all of which are on file in the office of the building official, are referred to, adopted and made a part of this division as if fully set out in this division. If and when the 2003 edition of the code is amended or replaced by subsequent editions of the code, those subsequent editions shall be the building code of the city without the necessity of amending this chapter. All references in such code to boards of appeal shall refer to the board of adjustment of the city. (Ordinance 245, sec. 1, adopted 2/17/05)~~

Sec. 3.02.102 Local Amendments

The following sections, paragraphs, and sentences of the *2018 International Residential Code* are hereby amended as follows: Standard type is text from the IRC. Underlined type is text inserted. ~~Lined through type is deleted text from IRC.~~

A. Energy provisions deleted. The energy provisions in IRC Chapter 11 are deleted in its entirety.
Reference the 2018 IECC for energy code provisions and recommended amendments.

B. Section R102.4; change to read as follows:

R102.4 Referenced codes and standards. The *codes*, when specifically adopted, and standards referenced in this *code* shall be considered part of the requirements of this *code* to the prescribed extent of each such reference and as further regulated in Sections R102.4.1 and R102.4.2. Whenever amendments have been adopted to the referenced *codes* and standards, each reference to said *code* and standard shall be considered to reference the amendments as well. Any reference made to NFPA 70 or the *Electrical Code* shall mean the *Electrical Code* as adopted.

(Reason: Legal wording to recognize locally adopted codes and amendments adopted with referenced codes.)

B. Section R103 and R103.1 amend to insert the Department Name

~~*DEPARTMENT OF BUILDING SAFETY*~~ *[INSERT OFFICIAL BUILDING DEPARTMENT NAME OF JURISDICTION]*

R103.1 Creation of enforcement agency. The ~~Department of Building Safety~~ [INSERT OFFICIAL BUILDING DEPARTMENT NAME OF JURISDICTION] is hereby created and the official in charge thereof shall be known as the *building official*.

(Reason: Reminder to be sure ordinance reads the same as designated by the city.)

C. Section R104.10.1 Flood Hazard areas; delete this section.

(Reason: Flood hazard ordinances may be administered by other departments within the city.)

D. Section R105.3.1.1& R106.1.4; delete these sections.

(Reason: Floodplain provisions are addressed locally.)

E. Section R110 (R110.1 through R110.5); delete the section.

(Reason: Issuing CO's for residences is not a common practice in the area.)

F. Section R202; change definition of "Townhouse" to read as follows:

TOWNHOUSE. A single-family dwelling unit constructed in a group of three or more attached units separated by property lines in which each unit extends from foundation to roof and with a *yard* or *public way* on at least two sides.
(Reason: To distinguish Townhouses on separate lots.)

G. Section R302.3; add Exception #3 to read as follows:

Exceptions:

1. {existing text unchanged}
2. {existing text unchanged}
3. Two-family dwelling units that are also divided by a property line through the structure shall be separated as required for townhouses.

(Reason: Provide guidance for a common construction method in this area. Correlates with amendment to IRC Section R202 Townhouse definition.)

***Section R302.5.1; change to read as follows:**

R302.5.1 Opening protection. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage and residence shall be equipped with solid wood doors not less than 13/8 inches (35 mm) in thickness, solid or honeycomb core steel doors not less than 13/8 inches (35 mm) thick, or 20-minute fire-rated doors. ~~Equipped with a self-closing or automatic closing device~~.

(Reason: Absence of data linking self-closing devices to increased safety. Self-closing devices often fail to close the door entirely.)

H. Section R303.3, Exception; amend to read as follows:

Exception: {existing text unchanged} Spaces containing only a water closet or water closet and a lavatory may be ventilated with an approved mechanical recirculating fan or similar device designed to remove odors from the air.

(Reason: Consistent with common local practice as recirculating fans are recognized as acceptable air movement.)

I. Section R313.2 One and Two Family Dwellings; Delete this section and subsection in their entirety.

(Reason: In 2009, the State Legislature enacted SB 1410, amending section 1301.551 subsection I of the occupation code, prohibiting cities from enacting fire sprinkler mandates one or two family dwellings only. However, jurisdictions with ordinances that required sprinklers for one or two family dwellings prior to and enforced before January 1, 2009, may remain in place.*)*

J. Section R315.2.2 Alterations, repairs and additions; amend to read as follows:

Exception:
1. [existing text remains]
2. Installation, alteration or repairs of all electrically powered mechanical systems or plumbing appliances.

(Reason: Revised exception for clarity. Code intent is to protect against the products of combustion.)

K. Section R322 Flood Resistant Construction; deleted section.

(Reason: Floodplain hazard ordinances may be administered by other departments within the city.)

L. Section R401.2; amended by adding a new paragraph following the existing paragraph to read as follows.

Section R401.2. Requirements. *{existing text unchanged} ...*

Every foundation and/or footing, or any size addition to an existing post-tension foundation, regulated by this code shall be designed and sealed by a Texas-registered engineer.

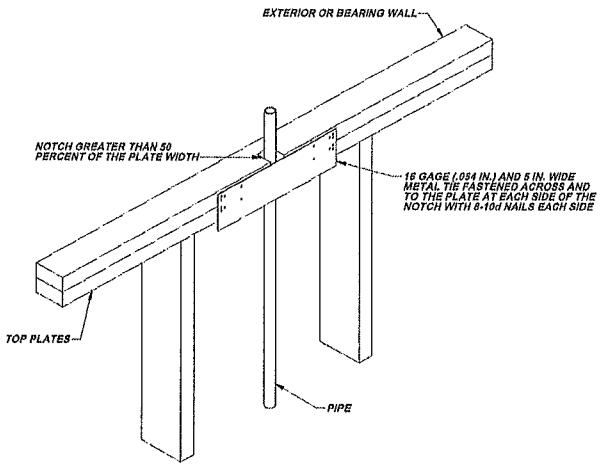
(Amendment to 2015 IRC carried forward to 2018 IRC.)

M. Section R602.6.1; amend the following:

R602.6.1 Drilling and notching of top plate. When piping or ductwork is placed in or partly in an exterior wall or interior load-bearing wall, necessitating cutting, drilling or notching of the top plate by more than 50 percent of its width, a galvanized metal tie not less than 0.054 inch thick (1.37 mm) (16 Ga) and ~~1 ½ inches (38) mm~~ 5 inches (127 mm) wide shall be fastened across and to the plate at each side of the opening with not less than eight 10d (0.148 inch diameter) having a minimum length of 1 ½ inches (38 mm) at each side or equivalent. Fasteners will be offset to prevent splitting of the top plate material. The metal tie must extend a minimum of 6 inches past the opening. See figure R602.6.1. {remainder unchanged}

(Amendment to 2015 IRC carried forward to 2018 IRC.)

N. Figure R602.6.1; delete the figure and insert the following figure:



(Amendment to 2015 IRC carried forward to 2018 IRC also provides additional assurance of maintaining the integrity of the framing by spreading the nailing pattern.)

O. Add section R703.8.4.1.2 Veneer Ties for Wall Studs; to read as follows:

R703.8.4.1.2 Veneer Ties for Wall Studs. In stud framed exterior walls, all ties may be anchored to studs as follows:

1. When studs are 16 in (407 mm) o.c., stud ties shall be spaced no further apart than 24 in (737 mm) vertically starting approximately 12 in (381 mm) from the foundation; or

2. When studs are 24 in (610 mm) o.c., stud ties shall be spaced no further apart than 16 in (483 mm) vertically starting approximately 8 in (254 mm) from the foundation.

(This amendment had been a carry over amendment for years to provide clear instruction for placement of brick ties. It is now retained with changes to reflect its correct placement and use for clarity when attachment to framing lumber (studs). It should remain for those purposes. It is in addition to the new new Table in 2018 which provides for brick ties directly to sheathing.)

P. Section R902.1; amend and add exception #5 to read as follows:

R902.1 Roofing covering materials. Roofs shall be covered with materials as set forth in Sections R904 and R905. Class A, B, or C roofing shall be installed ~~in designated by law as requiring their use or when the edge of the roof is less than 3 feet from a lot line~~. *{remainder unchanged}*

Exceptions:

1. *{text unchanged}*
2. *{text unchanged}*
3. *{text unchanged}*
4. *{text unchanged}*

5. Non-classified roof coverings shall be permitted on one-story detached *accessory structures* used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed (area defined by jurisdiction).

(Reason: to address accessory structures Group U exempt from permits per Section R105.2)

Q. Chapter 11 [RE] – Energy Efficiency is deleted in its entirety; Reference the 2018 IECC for energy code provisions and recommended amendments.

(Reason: The recommended energy code changes from the Energy and Green Advisory

Board update the amendments for Chapter 11. The 2018 International Energy Conservation Code should be referenced for residential energy provisions. This approach simply minimizes the number of amendments to the IRC.)

R. Section M1305.1.2; change to read as follows:

M1305.1.2 Appliances in attics. Attics containing appliances shall be provided . . . {bulk of paragraph unchanged} . . . side of the appliance. The clear access opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), and large enough to allow removal of the largest appliance. As a minimum, for access to the attic space, provide one of the following:

1. A permanent stair.

2. A pull down stair with a minimum 300 lb (136 kg) capacity.

3. An *access* door from an upper floor level.

Exceptions:

1. The passageway and level service space are not required where the *appliance* can be serviced and removed through the required opening.

2. Where the passageway is unobstructed... *{remaining text unchanged}*

(Reason: To provide a safe means of accessibility to appliances in attics and to allow for different types of construction limitations. Consistent with regional amendment to IFGC and IMC 306.3.)

S. Section M1411.3; change to read as follows:

M1411.3 Condensate disposal. ***Condensate from all cooling coils or evaporators shall be conveyed from the drain pan outlet to an approved place of disposal a sanitary sewer through a trap, by means of a direct or indirect drain.*** **{remaining text unchanged}**

(Reason: to reduce excessive runoff into storm drains.)

T. Section M1411.3.1, Items 3 and 4; add text to read as follows:

M1411.3.1 Auxiliary and secondary drain systems. **{bulk of paragraph unchanged}**

1. **{text unchanged}**

2. **{text unchanged}**

3. ***An auxiliary drain pan...*** **{bulk of text unchanged}** ***... with Item 1 of this section. A water level detection device may be installed only with prior approval of the*** **building official.**

4. ***A water level detection device...*** **{bulk of text unchanged}** ***... overflow rim of such pan. A water level detection device may be installed only with prior approval of the*** **building official.**

U. Section M1411.3.1.1; add text to read as follows:

M1411.3.1.1 Water-level monitoring devices. ***On down-flow units*** **...{bulk of text unchanged}...** ***installed in the drain line. A water level detection device may be installed only with prior approval of the*** **building official.**

V. M1503.6 Makeup Air Required; amend and add exception as follows:
M1503.6 Makeup air required. Where one or more gas, liquid or solid fuel-burning appliance that is neither direct-vent nor uses a mechanical draft venting system is located within a dwelling unit's air barrier, each exhaust system capable of exhausting in excess of 400 cubic feet per minute (0.19 m^3/s) shall be mechanically or passively provided with makeup air at a rate approximate~~ly equal~~ to the difference between exhaust air rate and 400 cubic feet per minute. Such makeup air systems shall be equipped with not fewer than one damper complying with Section M1503.6.2.

Exception: ***Makeup air is not required for exhaust systems installed for the exclusive purpose of space cooling and intended to be operated only when windows or other air inlets are open. Where all appliances in the house are of sealed combustion, power-vent, unvented, or electric, the exhaust hood system shall be permitted to exhaust up to 600 cubic feet per minute (0.28 m3/s) without providing makeup air. Exhaust hood systems capable of exhausting in excess of 600 cubic feet per minute (0.28 m3/s) shall be provided with a makeup air at a rate approximately to the difference between the exhaust air rate and 600 cubic feet per minute.***

(Reason: Exception requires makeup air equaling the amount above and beyond 400 cfm for larger fan which will address concerns related to "fresh" air from the outdoors in hot humid climates creating a burden on HVAC equipment and negative efficiency impacts from back-drafting and wasted energy.)

W. Section M2005.2; change to read 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. Access to such enclosure may be from the bedroom or bathroom when through a solid door, weather-stripped in accordance with the exterior door air leakage requirements of the *International Energy Conservation Code* and equipped with an *approved* self-closing device. Installation of direct-vent water heaters within an enclosure is not required.

(Reason: Corresponds with the provisions of IFGC Section 303.3, exception #5.)

X. Section G2408.3 (305.5) Private Garages; delete this section in its entirety.

Y. Section G2415.2.1 (404.2.1) CSST; add a second paragraph to read as follows:

Both ends of each section of medium pressure gas piping shall identify its operating gas pressure with an *approved* tag. The tags are to be composed of aluminum or stainless steel and the following wording shall be stamped into the tag:

"WARNING: 1/2 to 5 psi gas pressure - Do Not Remove"

(Reason: To protect homeowners and plumbers.)

Z. Section G2415.12 (404.12) and G2415.12.1 (404.12.1); change to read as follows:

G2415.12 (404.12) Minimum burial depth. Underground *piping systems* shall be installed a minimum depth of ~~12 inches (305 mm)~~ 18 inches (457 mm) below grade, ~~except as provided for in Section G2415.12.1.~~

G2415.12.1 (404.12.1) Individual Outdoor Appliances; Delete in its entirety

(Reason: To provide increased protection to piping systems.)

AA. Section G2417.1 (406.1); change to read as follows:

G2417.1 (406.1) General. ***Prior to acceptance and initial operation, all*** **piping** ***installations shall be inspected and*** **pressure tested** ***to determine that the materials, design, fabrication, and installation practices comply with the requirements of this*** **code.** ***The*** **permit** ***holder shall make the applicable tests prescribed in Sections 2417.1.1 through 2417.1.5 to determine compliance with the provisions of this*** **code.** ***The*** **permit** ***holder shall give reasonable advance notice to the*** **building official** ***when the*** **piping system** ***is ready for testing. The*** **equipment,** ***material, power and labor necessary for the inspections and test shall be furnished by the*** **permit** ***holder and the*** **permit** ***holder shall be responsible for determining that the work will withstand the test pressure prescribed in the following tests.***

(Reason: To utilize language used in the IPC regarding who is responsible for testing procedures.)

BB. Section G2417.4; change to read as follows:

G2417.4 (406.4) Test pressure measurement. ***Test pressure shall be measured with a monometer or with a pressure-measuring device designed and calibrated to read, record, or indicate a pressure loss caused by leakage during the pressure test period. The source of pressure shall be isolated before the pressure tests are made.*** ~~***Mechanical gauges used to measure test pressures shall have a range such that the highest end of the scale is not greater than five times the test pressure.***~~

(Reason: To require the use of more accurate diaphragm gauges. Spring gauges do not provide accurate measurement below approximately 17 psig.)

CC. Section G2417.4.1; change to read as follows:

G2417.4.1 (406.4.1) Test pressure. ***The test pressure to be used shall be no less than 3 psig (20 kPa gauge), or at the discretion of the Code Official, the piping and valves may be tested at a pressure of at least six (6) inches (152 mm) of mercury, measured with a manometer or slope 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.***~~ ***For tests requiring a pressure of 3 psig, diaphragm gauges shall utilize a dial with a minimum diameter of three and one half inches (3 ½"), a set hand, 1/10 pound incrementation and pressure range not to exceed 6 psi for tests requiring a pressure of 3 psig. For tests requiring a pressure of 10 psig, diaphragm gauges shall utilize a dial with a minimum diameter of three and one-half inches (3 ½"), a set hand, a minimum of 2/10 pound incrementation and a pressure range not to exceed 20 psi. For welded piping, and***

for piping carrying gas at pressures in excess of fourteen (14) inches water column pressure (3.48 kPa) (1/2 psi) and less than 200 inches of water column pressure (52.2 kPa) (7.5 psi), the test pressure shall not be less than ten (10) pounds per square inch (69.6 kPa). For piping carrying gas at a pressure that exceeds 200 inches of water column (52.2 kPa) (7.5 psi), the test pressure shall be not less than one and one-half times the proposed maximum working pressure.

Diaphragm gauges used for testing must display a current calibration and be in good working condition. The appropriate test must be applied to the diaphragm gauge used for testing

(Reason: To provide for lesser pressures to coordinate with the use of more accurate diaphragm gauges.)

DD. Section G2417.4.2; change to read as follows:

G2417.4.2 (406.4.2) Test duration. ***The test duration shall be held for a length of time satisfactory to the* Building Official, *but in no case for ~~be not~~ less than ~~10~~ fifteen (15) minutes. For welded* piping, *and for* piping *carrying gas at pressures in excess of fourteen (14) inches water column pressure (3.48 kPa), the test duration shall be held for a length of time satisfactory to the* Building Official, *but in no case for less than thirty (30) minutes.***

EE. Section G2420.1 (406.1); add Section G2420.1.4 to read as follows:

G2420.1.4 Valves in CSST installations. Shutoff *valves* installed with corrugated stainless steel (CSST) *piping systems* shall be supported with an approved termination fitting, or equivalent support, suitable for the size of the *valves*, of adequate strength and quality, and located at intervals so as to prevent or damp out excessive vibration but in no case greater than 12-inches from the center of the *valve*. Supports shall be installed so as not to interfere with the free expansion and contraction of the system's *piping*, fittings, and *valves* between anchors. All *valves* and supports shall be designed and installed so they will not be disengaged by movement of the supporting *piping*.

(Reason: To provide proper security to CSST valves. These standards were established in this region in 1999 when CSST was an emerging technology.)

FF. Section G2420.5.1 (409.5.1); add text to read as follows:

G2420.5.1 (409.5.1) Located within the same room. The shutoff valve…*{bulk of paragraph unchanged}*… in accordance with the appliance manufacturer's instructions. A secondary shutoff valve must be installed within 3 feet (914 mm) of the firebox if appliance shutoff is located in the firebox.

GG. Section G2421.1 (410.1); add text and Exception to read as follows:

G2421.1 (410.1) Pressure regulators. ***A line* pressure regulator *shall be* … {bulk of paragraph unchanged}… approved *for outdoor installation. Access to* regulators *shall comply with the requirements for access to* appliances *as specified in Section M1305.***

Exception: A passageway or level service space is not required when the *regulator* is capable of being serviced and removed through the required *attic* opening.

(Reason: To require adequate access to regulators.)

HH. Section G2422.1.2.3 (411.1.3.3) Prohibited locations and penetrations; delete Exception 1 and Exception 4.

II. Section G2445.2 (621.2); add Exception to read as follows:

G2445.2 (621.2) Prohibited use. One or more *unvented room heaters* shall not be used as the sole source of comfort heating in a *dwelling unit.*

> **Exception:** Existing *approved unvented room heaters* may continue to be used in *dwelling units*, in accordance with the *code* provisions in effect when installed, when *approved* by the *Building Official* unless an unsafe condition is determined to exist as described in *International Fuel Gas Code* Section 108.7 of the Fuel Gas Code.

(Reason: Gives code official discretion.)

JJ. Section G2448.1.1 (624.1.1); change to read as follows:

G2448.1.1 (624.1.1) Installation requirements. The requirements for *water heaters* relative to access, sizing, *relief valves*, drain pans and scald protection shall be in accordance with this *code.*

(Reason: To clarify installation requirements. Also corresponds with amendments regarding water heater access.)

KK. Section P2603; add to read as follows:

P2603.3 Protection against corrosion. Metallic piping, except for cast iron, ductile iron and galvanized steel, shall not be placed in direct contact with steel framing members, concrete or cinder walls and floors or other masonry. Metallic piping shall not be placed in direct contact with corrosive soil. Where sheathing is used to prevent direct contact, the sheathing shall have a thickness of not less than 0.008 inch (8 mil) (0.203 mm) and the sheathing shall be made of approved material ~~plastic~~. Where sheathing protects piping that penetrates concrete or masonry walls or floors, the sheathing shall be installed in a manner that allows movement of the piping within the sheathing.

(Reason: Allows for other materials to be accepted.)

LL. Section P2603.5.1 Sewer Depth; change to read as follows:

P2603.5.1 Sewer depth. Building sewers that connect to private sewage disposal systems shall be a minimum of [number] inches (mm) below finished grade at the point of septic tank connection. Building sewers shall be a minimum of 12 inches (304 mm) below grade.

(Reason: Provides sewer depth that is common in this region. Deleted reference to private sewage disposal because a private sewage disposal code is not typically adopted in this region.)

MM. Section P2604; add to read as follows:

P2604.2.1 Plastic sewer and DWV piping installation. Plastic sewer and DWV piping installed underground shall be installed in accordance with the manufacturer's installation instructions. Trench width shall be controlled to not exceed the outside the pipe diameter plus 16 inches or in a trench which has a controlled width equal to the nominal diameter of the piping multiplied by 1.25 plus 12 inches. The piping shall be bedded in 4 inches of granular fill and then backfilled compacting the side fill in 6-inch layers on each side of the piping. The compaction shall be to minimum of 85 percent standard proctor density and extend to a minimum of 6 inches above the top of the pipe.

(Reason: To follow manufacturer backfill requirements and to be clear to Inspectors out in the field.)

NN. Section P2801; change to read as follows:

P2801.6 Required pan.
Where a storage tank-type water heater or a hot water storage tank is installed in a location where water leakage from the tank will cause damage, the tank shall be installed in a pan constructed of one of the following:

1. Galvanized steel or aluminum of not less than 0.0236 inch (0.6010 mm) in thickness.
2. Plastic not less than 0.036 inch (0.9 mm) in thickness.
3. Other *approved* materials.

~~A plastic pan beneath a gas-fired water heater shall be constructed of material having a flame spread index of 25 or less and a smoke-developed index of 450 or less when tested in accordance with ASTM E84 or UL 723~~.

(*Reason: Plastic burns degrading material over time on gas fired water heaters and to maintaining protection level.)*

OO. Section P2801.6.1; change to read as follows:

Section P2801.6.1 Pan size and drain. The pan shall be not less than 11/2 inches (38 mm) in depth and shall be of sufficient size and shape to receive all dripping or condensate from the tank or water heater. The pan shall be drained by an indirect waste pipe having a diameter of not less than 3/4 inch (19 mm). Piping for safety pan drains shall be of those materials listed in Table P2906.5.
Multiple pan drains may terminate to a single discharge piping system when *approved* by the administrative authority and permitted by the manufactures installation instructions and installed with those instructions. {*existing text unchanged}*

(Reason: Regionally accepted practice.)

PP. Section P2804.6.1; change to read as follows:

Section P2804.6.1 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.

   Exception: Multiple relief devices may be installed to a single T & P discharge piping system when approved by the administrative authority and permitted by the manufactures installation instructions and installed with those instructions.

5. Discharge to ~~the floor, to the pan serving the water heater or storage tank, to a waste receptor~~ an approved location or to the outdoors.

   [remainder unchanged]

(Reason: To ensure the T&P is ran to the exterior.)

QQ. Section P2902.5.3; change to read as follows:

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

(Reason: To provide clarity.)

RR. Section P3003.9; change to read as follows:

P3003.9.2 Solvent cementing. Joint surfaces shall be clean and free from moisture. A purple primer that conforms to ASTM F 656 shall be applied. Solvent cement not purple in color and conforming to ASTM D 2564, CSA B137.3, CSA B181.2 or CSA B182.1 shall be applied to all joint surfaces. The joint shall be made while the cement is wet and shall be in accordance with ASTM D 2855. Solvent cement joints shall be permitted above or below ground.

~~Exception: A primer is not required where both of the following conditions apply:~~

1. ~~The solvent cement used is third-party certified as conforming to ASTM D 2564~~
2. ~~The solvent cement is used only for joining PVC drain, waste, and vent pipe and fittings in not pressure applications in sizes up to and including 4 inches (102mm) in diameter.~~

(Reason: to keep the "process of joining PVC pipe".)
SS. Section P3111Combination waste and vent systems; delete this section in its entirety.

(Reason: A combination waste and vent system is not approved for use in residential construction.)

TT. Section P3112.2 Vent Collection; delete and replace with the following:

P3112.2 Installation. Traps for island sinks and similar equipment shall be roughed in above the floor and may be vented by extending the vent as high as possible, but not less than the drainboard height and then returning it downward and connecting it to the horizontal sink drain immediately downstream from the vertical fixture drain. The return vent shall be connected to the horizontal drain through a wye-branch fitting and shall, in addition, be provided with a foot vent taken off the vertical fixture vent by means of a wye-branch immediately below the floor and extending to the nearest partition and then through the roof to the open air or may be connected to other vents at a point not less than six (6) inches (152 mm) above the flood level rim of the fixtures served. Drainage fittings shall be used on all parts of the vent below the floor level and a minimum slope of one-quarter (1/4) inch per foot (20.9 mm/m) back to the drain shall be maintained. The return bend used under the drain-board shall be a one (1) piece fitting or an assembly of a forty-five (45) degree (0.79 radius), a ninety (90) degree (1.6 radius) and a forty-five (45) degree (0.79 radius) elbow in the order named. Pipe sizing shall be as elsewhere required in this Code. The island sink drain, upstream of the return vent, shall serve no other fixtures. An accessible cleanout shall be installed in the vertical portion of the foot vent.

(Reason: To clarify the installation of island venting and to provide a regional guideline on a standard installation method for this region.)

Secs. 3.02.103–3.02.150 Reserved

Division 4. Electrical Code

Sec. 3.02.151 Adopted

The NFPA National Electrical Code 2017 edition, is hereby adopted as the electrical code within the city.

~~(a) The following code is hereby adopted by reference as though it were copied herein fully:~~

~~National Electrical Code, 1999 edition.~~

~~(b) Any matters in said code which are contrary to existing ordinances of the city shall prevail.~~

~~(Ordinance 198 adopted 12/9/99)~~

Secs. 3.02.152 Local Amendments

The following articles, paragraphs, and sentences of the *2017 National Electrical Code (NEC)* are hereby amended as follows: Standard type is text from the NEC. Underlined is text inserted and ~~Lined through type is deleted text from NEC.~~

A. Article 100; add the following to definitions:

Engineering Supervision. Supervision by a Qualified State of Texas Licensed Professional Engineer engaged primarily in the design or maintenance of electrical installations.

(REASON FOR CHANGE: To better define the qualifications for engineering supervision. This term is used twenty four times in the 2017 National Electrical Code*.)*

B. Article 100; remove the amendment to the following definition:

Intersystem Bonding Termination. A device that provides a means for connecting intersystem bonding conductors for communication systems ~~and other systems such as metallic gas piping systems~~ to the grounding electrode system. ~~Bonding conductors for other systems shall not be larger than 6 AWG.~~

(REASON FOR CHANGE: Remove the above amendment. Updates to the 2017 National Electrical Code *Article 250.94(A) only accommodate connecting communication systems to an intersystem bonding termination device, but Article 250.94(B) provides an alternative or other means.)*

C. Article 110.2; change the following to read as follows:

110.2 Approval. The conductors and equipment required or permitted by this *Code* shall be acceptable only if approved. Approval of equipment may be evident by listing and labeling of equipment by a Nationally Recognized Testing Lab (NRTL) with a certification mark of that laboratory or a qualified third party inspection agency approved by the AHJ.

Exception: Unlisted equipment that is relocated to another location within a jurisdiction or is field modified is subject to the approval by the AHJ. This approval may be by a field evaluation by a NRTL or qualified third party inspection agency approved by the AHJ.

~~Manufacturer's self-certification of any equipment shall not be used as a basis for approval by the AHJ.~~

Informational Note No.1: See 90.7, Examination of Equipment for Safety, and 110.3, Examination, Identification, Installation, and Use of Equipment. See definitions of *Approved*, *Identified*, *Labeled*, and *Listed*.

Informational Note No. 2: Manufacturer's self-certification of equipment may not necessarily comply with U.S. product safety standards as certified by an NRTL.

Informational Note No. 3: National Fire Protection Association (NFPA) 790 and 791 provide an example of an approved method for qualifying a third party inspection agency.

(REASON FOR CHANGE: To add clarity and provide more positive options for enforcement and approval of unlisted equipment.)

D. Article 210.52(G) (1) Garages: remove the amendment that deleted the following:

(1) Garages. In each attached garage and in each detached garage with electric power. ~~The branch circuit supplying this receptacle(s) shall not supply outlets outside of the garage.~~ At least one receptacle outlet shall be installed for each car space.

~~*(REASON FOR CHANGE: Installations in compliance with this Code are not necessarily efficient, convenient, or adequate for good service or future expansion of electrical use.)*~~

(REASON FOR CHANGE: Updates to this section in the 2017 National Electrical Code *provided relief by removing "shall not supply outlets outside of the garage.")*

E. Article 230.71(A); remove the amendment that added the following exception:

~~Exception: Multi-occupant buildings. Individual service disconnecting means is limited to six for each occupant. The number of individual disconnects at one location may exceed six.~~

~~*(REASON FOR CHANGE: This is currently the accepted installation practice of the region. No noteworthy complaints have surfaced. It is more reasonable than the current NEC requirements. It allows more than six disconnects grouped at one location. This also allows designers more flexibility in the placement of electrical meters and main service disconnects.)*~~

(REASON FOR CHANGE: This is below the minimum standard of the 2017 National Electrical Code *adopted by the State of Texas.)*

F. Article 300.11; remove the amendment that added the following exception:
~~Exception: Ceiling grid support wires may be used for structural supports when the associated wiring is located in that area, not more than two raceways or cables supported per wire, with a maximum nominal metric designation 16 (trade size 1/2").~~

~~*(REASON FOR CHANGE: To provide limited support of raceways and cables by ceiling grid support wire.)*~~

(REASON FOR CHANGE: This is below the minimum standard of the 2017 National Electrical Code *adopted by the State of Texas.)*

G. Article 310.15(B) (7); remove the amendment that changed the following to read as follows:

~~(7) This Article shall not be used in conjunction with 220.82.~~

~~*(REASON FOR CHANGE: 310.15(B) (7) has been revised and the table has been deleted.)*~~

(REASON FOR CHANGE: Upon review of the 2014 and 2017 code-making panel 6 and in conjunction with the wire manufacturing industry, based on the diversification of loads in modern construction, this amendment becomes irrelevant.)

H. Article 500.8 (A) (3); change to read as follows:

500.8 Equipment.
Articles 500 through 504 require equipment construction and installation that ensure safe performance under conditions of proper use and maintenance.

Informational Note No. 1: It is important that inspection authorities and users exercise more than ordinary care with regard to installation and maintenance.

Informational Note No. 2: Since there is no consistent relationship between explosion properties and ignition temperature, the two are independent requirements.

Informational Note No. 3: Low ambient conditions require special consideration. Explosion proof or dust-ignition proof equipment may not be suitable for use at temperatures lower than -25°C
(-13°F) unless they are identified for low-temperature service. However, at low ambient temperatures, flammable concentrations of vapors may not exist in a location classified as Class I, Division 1 at normal ambient temperature.

(A) Suitability. Suitability of identified equipment shall be determined by one of the following:

(1) Equipment listing or labeling;
(2) Evidence of equipment evaluation from a qualified testing laboratory or inspection agency concerned with product evaluation; or,
(3) Evidence acceptable to the authority having jurisdiction such as a manufacturer's self-evaluation or ~~an owner's engineering judgment.~~ an engineering judgment signed and sealed by a qualified ~~Registered~~ licensed Professional Engineer in the State of Texas.

Informational Note: Additional documentation for equipment may include certificates demonstrating compliance with applicable equipment standards, indicating special conditions of use, and other pertinent information.

(REASON FOR CHANGE: To better define the qualifications for an engineering judgment.)

I. Article 505.7 (A) changed to read as follows:

505.7 Special Precaution.
Article 505 requires equipment construction and installation that ensures safe performance under conditions of proper use and maintenance.

Informational Note No. 1: It is important that inspection authorities and users exercise more than ordinary care with regard to the installation and maintenance of electrical equipment in hazardous (classified) locations.

Informational Note No. 2: Low ambient conditions require special consideration. Electrical equipment depending on the protection techniques described by 505.8(A) may not be suitable for use at temperatures lower than -20°C (-4°F) unless they are identified for use at lower temperatures. However, at low ambient temperatures, flammable concentrations of vapors may not exist in a location classified Class I, Zones 0, 1, or 2 at normal ambient temperature.

(A) Implementation of Zone Classification System. Classification of areas, engineering and design, selection of equipment and wiring methods, installation, and inspection shall be performed by a qualified ~~persons~~ ~~Registered~~ licensed Professional Engineer in the State of Texas.

(REASON FOR CHANGE: To better define the qualifications for an engineering judgment.)

J. Article 517.30 Essential Electrical Systems for Hospitals; remove the amendment that created a new (H) and added the following language:

(G) Coordination. Overcurrent protective devices serving the ~~equipment branch of the~~ essential electrical system shall be coordinated for the period of time that a fault's duration extends beyond 0.1 second.

Exception No. 1: Between transformer primary and secondary overcurrent protective devices, where only one overcurrent protective device or set of overcurrent protective

devices exists on the transformer secondary.

Exception No. 2: Between overcurrent protective devices of the same size (ampere rating) in series.

Informational Note: The terms coordination and coordinated as used in this section do not cover the full range of overcurrent conditions.

~~**(H) Selective Coordination.** Overcurrent protective devices serving the life safety, and critical branches of the essential electrical system shall be selectively coordinated with all supply side overcurrent protective devices.~~

~~Exception No. 1: Between transformer primary and secondary overcurrent protective devices, where only one overcurrent protective device or set of overcurrent protective devices exists on the transformer secondary.~~

~~Exception No. 2: Between overcurrent protective devices of the same size (ampere rating) in series.~~

~~Informational Note: The terms coordination and coordinated as used in this section do not cover the full range of overcurrent conditions.~~

~~*(REASON FOR CHANGE: Changes made by deleting the definition of emergency systems in Article 517 Health Care Facilities and removing emergency systems as "Essential Electrical Systems for Hospitals in 517.30(B) (2), plus the new addition of section 517.30(G) for "Coordination" instead of using selective coordination, has diminished the reliability of the "Life Safety and Critical Branches of the Essential Electrical System" to deliver power to vital loads. By providing only "coordination," the instantaneous portion of the time-current curve has been eliminated from the overcurrent device settings.)*~~

(REASON FOR CHANGE: Due to no action by the 2017 code-making panel 15 and NFPA 99, this amendment is not applicable.)

K. Article 600.6(A) (1) At Point of Entry to a Sign; Exception 1 changed to read as follows:

Exception No.1: A disconnect shall not be required for branch circuits(s) or feeder conductor(s) passing through the sign where enclosed in a Chapter 3 listed raceway or metal-jacketed cable identified for the location. The conductor(s) shall not serve the sign body or sign enclosure where passing through.

Article 600.6(A) (1) At Point of Entry to a Sign; create a new Exception No. 2 to add the following language:

Exception No. 2. A disconnect shall not be required at the point of entry to a sign body, sign enclosure, or pole for branch circuit conductor(s). The conductors shall be enclosed in a Chapter 3 listed raceway or metal-jacketed cable identified for the location. The conductor(s) shall be routed to a device box which contains the disconnect. A field-applied permanent warning label that is visible during servicing shall be applied to the raceway at or near the point of entry into the sign enclosure or sign body. The warning label shall comply with 110.21(B) and state the following: "Danger. This raceway contains energized conductors."

The marking shall include the location of the disconnecting means for the energized conductor(s). The disconnecting means shall be capable of being locked in the open position in accordance with 110.25.

Article 600.6(A) (1) At Point of Entry to a Sign; move the original Exception 2 to create a new Exception No. 3 and add the following language:

Exception No. 3: A disconnect shall not be required at the point of entry to a sign enclosure or sign body for branch circuit(s) or feeder conductor(s) that supply an internal panelboard(s) in a sign enclosure or sign body. The conductors shall be enclosed in a Chapter 3 listed raceway or metal-jacketed cable identified for the location. A field-applied permanent warning label that is visible during servicing shall be applied to the raceway at or near the point of entry into the sign enclosure or sign body. The warning label shall comply with 110.21(B) and state the following: "Danger. This raceway contains energized conductors." The marking shall include the location of the disconnecting means for the energized conductor(s). The disconnecting means shall be capable of being locked in the open position in accordance with 110.25.

(2017 Code) Informational Note: The location of the disconnect is intended to allow service or maintenance personnel complete and local control of the disconnecting means.

(REASON FOR CHANGE: This is a modification of the nationwide sign manufacturing practice that was standard before the 2014 Code revision. It is more reasonable but not less than the current Code requirements. It provides local control of the disconnect by service personnel as the informational note suggests, while requiring a sign disconnect to be at or within sight of the sign. This also allows sign designers more flexibility in the placement of the disconnecting means in relation to the location of the sign.)

L. Article 680.25(A) remove the amendment that added the following language and exception:

680.25 Feeders.
These provisions shall apply to any feeder on the supply side of panelboards supplying branch circuits for pool equipment covered in Part II of this article and on the load side of the service equipment or the source of a separately derived system.

(A) Wiring Methods.

(1) Feeders. Feeders shall be installed in rigid metal conduit, intermediate metal conduit. The following wiring methods shall be permitted if not subject to physical damage:

(1) Liquidtight flexible nonmetallic conduit
(2) Rigid polyvinyl chloride conduit
(3) Reinforced thermosetting resin conduit
(4) Electrical metallic tubing where installed on or in a building
(5) Electrical nonmetallic tubing where installed within a building
(6) Type MC Cable where installed within a building and if not subject to corrosive environment
~~(7) Nonmetallic-sheathed cable~~
~~(8) Type SE cable~~

~~Exception: A feeder within a one-family dwelling or two-family dwelling unit between remote panelboard and service equipment shall be permitted to run in flexible metal conduit or an approved cable assembly that includes an insulated equipment grounding conductor within its outer sheath. The equipment grounding conductor shall comply with 250.24(A) (5).~~

~~*(REASON FOR CHANGE: Carry over from previous amendments. Text changed to reflect 2014 National Electrical Code. Exception deleted per Errata No.70-14-2)*~~

(REASON FOR CHANGE: Updates to this section in the 2017 National Electrical Code *provided relief by recognizing these wiring methods.)*

Secs. 3.02.153–3.02.200 Reserved

Division 5. Plumbing Code

Sec. 3.02.201 Adopted

The International Plumbing Code 2018 edition, is hereby adopted as the plumbing code within the city.

~~(a) The following code is hereby adopted by reference as though it were copied herein fully:~~

~~Standard Plumbing Code, 1997 edition.~~

~~(b) Any matters in said code which are contrary to existing ordinances of the city shall prevail.~~

~~(Ordinance 198 adopted 12/9/99)~~

Sec. 3.02.202 Local Amendments

The following sections, paragraphs, and sentences of the *2018 International Plumbing Code* are hereby amended as follows: Standard type is text from the IPC. Underlined type is text inserted. ~~Lined-through type is deleted text from the IPC.~~

A. Table of Contents, Chapter 7, Section 714; change to read as follows:

714 Engineered ~~Computerized~~ Drainage Design 69

(Reason: Editorial change to make compatible with amendment to Section 714.1.)

B. Section 102.8; change to read as follows:

102.8 Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Chapter 15 and such codes, when specifically adopted, and standards shall be considered as part of the requirements of this code to the prescribed extent of each such reference. Where the differences occur between provisions of this code and the referenced standards, the provisions of this code shall be the minimum requirements. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the adopted amendments.

Any reference to NFPA 70 shall mean the Electrical Code as adopted.

(Reason: Legal wording to recognize locally adopted codes and amendments adopted with referenced codes.)

C. Sections 106.6.2 and 106.6.3; change to read as follows:

106.6.2 Fee schedule. The fees for all plumbing work shall be as ~~indicated in the following schedule: (JURISDICTION TO INSERT APPROPRIATE SCHEDULE)~~ adopted by resolution of the governing body of the jurisdiction.

106.6.3 Fee Refunds. The code official shall establish a policy for ~~authorize~~ authorizing the refunding of fees ~~as follows~~. *{Delete balance of section}*

(Reason: This calls to attention of local jurisdictions considering adoption that they need a fee schedule and a refund policy.)

D. Section 109; delete entire section and insert the following:
SECTION 109
MEANS OF APPEAL

109.1 Application for appeal. Any person shall have the right to appeal a decision of the code official to the board of appeals established by ordinance. The board shall be governed by the enabling ordinance.

E. Section 305; change to read as follows:

305.1 Protection against contact. Metallic piping, except for cast iron, ductile iron and galvanized steel, shall not be placed in direct contact with steel framing members, concrete or cinder walls and floors or other masonry. Metallic piping shall not be placed in direct contact with corrosive soil. Where sheathing is used to prevent direct contact, the sheathing shall have a thickness of not less than 0.008 inch (8 mil) (0.203 mm) and the sheathing shall be made of approved material ~~plastic~~. Where sheathing protects piping that penetrates concrete or masonry walls or floors, the sheathing shall be installed in a manner that allows movement of the piping within the sheathing.

(Reason: Allows for other materials to be accepted.)

305.4.1 Sewer depth. ~~Building sewers that connect to private sewage disposal systems shall be a minimum of [number] inches (mm) below finished grade at the point of septic tank connection.~~ Building sewers shall be a minimum of 12 inches (304 mm) below grade.

(Reason: Provides sewer depth that is common in this region. Deleted reference to private sewage disposal because a private sewage disposal code is not typically adopted in this region.)

F. Section 305.7; change to read as follows:

305.7 Protection of components of plumbing system. Components of a plumbing system installed within 3 feet along alleyways, driveways, parking garages or other locations in a manner in which they could be exposed to damage shall be recessed into the wall or

otherwise protected in an *approved* manner.

(Reason: Provide a common cutoff point to designate a general separation distance at which plumbing systems should be safe for consistency in enforcement.)

G. Section 306; change to read as follows:

306.2.4 Plastic sewer and DWV piping installation. Plastic sewer and DWV piping installed underground shall be installed in accordance with the manufacturer's installation instructions. Trench width shall be controlled to not exceed the outside the pipe diameter plus 16 inches or in a trench which has a controlled width equal to the nominal diameter of the diameter of the piping multiplied by 1.25 plus 12 inches. The piping shall be bedded in 4 inches of granular fill and then backfilled compacting the side fill in 6-inch layers on each side of the piping. The compaction shall be to minimum of 85 percent standard proctor density and extend to a minimum of 6 inches above the top of the pipe.

(Reason: To follow manufacturer backfill requirements and to be clear to Inspectors out in the field)

H. Section 314.2.1; change to read as follows:

314.2.1 Condensate disposal. Condensate from all cooling coils and evaporators shall be conveyed from the drain pan outlet to an *approved* place of disposal. ... {text unchanged} **...** Condensate shall not discharge into a street, alley, sidewalk, rooftop, or other areas so as to cause a nuisance.

(Reason: Greater specificity in prohibited locations for condensate discharge. It is the intent of this amendment to send condensate discharge into a sanitary sewer drain. Consistent with regional amendment to IMC 307.2.1.)

I. Section 409.2; change to read as follows:

409.2 Water connection. The water supply to a commercial dishwashing machine shall be protected against backflow by an air gap or backflow preventer in accordance with Section 608. (Remainder of section unchanged).

(Reason: Domestic dishwashing machines would be difficult to enforce and should already come equipped with backflow preventers. Consistent with regional amendments in IPC Section 608.)

J. Section 413.4; change to read as follows:

413.4 Required location for floor drains ~~Public laundries and central washing facilities.~~ Floor drains shall be installed in the following areas:

1. In public laundries and in the central washing facilities of multiple family dwellings, the rooms containing automatic clothes washers shall be provided with floor drains located to readily drain the entire floor area. Such drains shall have a minimum outlet of not less than 3 inches (76 mm) in diameter.

2. Commercial kitchens. In lieu of floor drains in commercial kitchens, the Code Official may accept floor sinks.

3. Public restrooms.

(Reason: To make more compatible with local health code practices.)

K. Section 502.3; change to read as follows:

502.3 Water heaters installed in attics. Attics containing a water heater shall be provided . . . {bulk of paragraph unchanged} . . . side of the water heater. The clear access opening dimensions shall be not less than 20 inches by 30 inches (508 mm by 762 mm) where such dimensions are large enough to allow removal of the water heater. As a minimum, for access to the attic space, provide one of the following:

1. A permanent stair.

2. A pull-down stair with a minimum 300 lb (136 kg) capacity.

3. An access door from an upper floor level.

4. Access Panel may be used in lieu of items 1, 2, and 3 with prior approval of the Code Official due to building conditions.

Exceptions:

1. The passageway and level service space are not required where the appliance is capable of being serviced and removed... {remainder of text unchanged}

(Reason: To provide a safe means of accessibility to appliances in attics and to allow for different types of construction limitations. Consistent with regional amendment to IMC and IFGC)

L. Section 502.6; add Section 502.6 to read as follows:

502.6 Water heaters above ground or floor. When the attic, roof, mezzanine or platform in which a water heater is installed is more than eight (8) feet (2438 mm) above the ground or floor level, it shall be made accessible by a stairway or permanent ladder fastened to the building.

Exception: A max 10-gallon water heater (or larger with approval) is capable of being accessed through a lay-in ceiling and a water heater is installed is not more than ten (10) feet (3048 mm) above the ground or floor level and may be reached with a portable ladder.

(Reason: To provide safe access to water heaters. (Consistent with regional amendments to IFGC 306.7 and IMC 306.3. Note reference to amendment above.)

M. Section 504.6; change to read 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.

   Exception: Multiple relief devices may be installed to a single T & P discharge piping system when *approved* by the administrative authority and permitted by the manufacture's installation instructions and installed with those instructions.

5. Discharge to ~~the floor, to the pan serving the water heater or storage tank, to a waste receptor~~ an approved location or to the outdoors.

6. Discharge in a manner that does not cause personal injury or structural damage.

7. Discharge to a termination point that is readily observable by the building occupants.

8. Not be trapped.

9. Be installed so as to flow by gravity.

10. Terminate not more than 6 inches 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 tested, rated and *approved* for such use in accordance with ASME A112.4.1.

14. Be one nominal size larger than the size of the relief valve outlet, where the relief valve discharge piping is installed with insert fittings. The outlet end of such tubing shall be fastened in place

(Reason: To provide a higher degree of safety.)

N. Section 504.7.1; change to read as follows:

Section 504.7.1 Pan size and drain to read as follows: The pan shall be not less than 11/2 inches (38 mm) in depth and shall be of sufficient size and shape to receive all dripping or condensate from the tank or water heater. The pan shall be drained by an indirect waste pipe having a diameter of not less than 3/4 inch (19 mm). Piping for safety pan drains shall be of those materials listed in Table 605.4. Multiple pan drains may terminate to a single discharge piping system when *approved* by the administrative authority and permitted by the

manufactures installation instructions and installed with those instructions.

O. Section 608.1; change to read as follows:

608.1 General. A potable water supply system shall be designed, installed and maintained in such a manner so as to prevent contamination from non-potable liquids, solids or gases being introduced into the potable water supply through cross-connections or any other piping connections to the system. Backflow preventer applications shall conform to applicable local regulations, Table 608.1, ~~except~~ and as specifically stated in Sections 608.2 through 608.16.10.

(Reason: To recognize local requirements.)

P. Section 608.17.5; change to read as follows:

608.17.5 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-type vacuum breaker, a double-check assembly or a reduced pressure principle backflow preventer. A valve shall not be installed downstream from an atmospheric vacuum breaker. Where chemicals are introduced into the system, the potable water supply shall be protected against backflow by a reduced pressure principle backflow preventer.

(Reason: To recognize regional practices.)

Q. Section 608.18; change to read as follows:

608.18 Protection of individual water supplies. An individual water supply shall be located and constructed so as to be safeguarded against contamination in accordance with applicable local regulations. Installation shall be in accordance with Sections 608.17.1 through 608.17.8.

(Reason: To allow local requirements to govern.)

R. Section 703.6; Delete

(Reason: not a standard practice in this region)

S. Section 704.5; added to read as follows:

704.5 Single stack fittings. Single stack fittings with internal baffle, PVC schedule 40 or cast iron single stack shall be designed by a registered engineer and comply to a national recognized standard.

(Reason: to allow owners, installers, inspectors, and design professionals to ready identify product markers to determine they meet all required standards.)

T. Section 712.5; add Section 712.5 to read as follows:

712.5 Dual Pump System. All sumps shall be automatically discharged and, when in any "public use" occupancy where the sump serves more than 10 fixture units, shall be provided

with dual pumps or ejectors arranged to function independently in case of overload or mechanical failure. For storm drainage sumps and pumping systems, see Section 1113.

(Reason: To address dual pump system. To provide reference for storm drainage systems.)

U. Section 713, 713.1; change to read as follows:

SECTION 713

ENGINEERED ~~COMPUTERIZED~~ DRAINAGE DESIGN

713.1 Design of drainage system. The sizing, design and layout of the drainage system shall be ~~permitted to be~~ designed by a registered engineer using *approved* ~~computer~~ design methods.

V. Section 803.3; added to read as follows:

803.3 Special waste pipe, fittings, and components. Pipes, fittings, and components receiving or intended to receive the discharge of any fixture into which acid or corrosive chemicals are placed shall be constructed of CPVC, high silicone iron, PP, PVDF, chemical resistant glass, or glazed ceramic materials.

(Reason: To clarify the allowable materials which are specifically listed for chemical drainage applications.)

W. Section 903.1; change to read as follows:

903.1 Roof extension. Open vent pipes that extend through a roof shall terminate not less than six (6) inches (152 mm) above the roof. Where a roof is to be used for 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.

(Reason: To provide regional guideline on standard installation method for this area and address reference number correction.)

X. Section 918.8; change to read as follows.

918.8 **Where permitted**. Individual, branch and circuit vents shall be permitted to terminate with a connection to an individual or branch-type air admittance valve in accordance with Section 918.3.1. Stack vents and vent stacks shall be permitted to terminate to stack-type air admittance valves in accordance with Section 918.3.2. Air admittance valves shall only be installed with the prior approval of the building official.

(Reason: Mechanical Device that is subject to fail and not installed per manufacturer)

Y. Section 1106.1; change to read as follows:

1106.1 General. The size of the vertical conductors and leaders, building storm drains, building storm sewers, and any horizontal branches of such drains or sewers shall be based on six (6) inches per hour ~~the 100-year hourly~~ rainfall rate ~~indicated in Figure 1106.1 or on other rainfall rates determined from *approved* local weather data~~.

(Reason: Specify the roof drain size normally used in the area.)

Z. Section 1108.3; change to read as follows:

1108.3 Sizing of secondary drains. Secondary (emergency) roof drain systems shall be sized in accordance with Section 1106 ~~based on the rainfall rate for which the primary system is sized in Figure 1106.1 or on other rainfall rates determined from *approved* local weather data.~~ Scuppers shall be sized to prevent the depth of ponding water from exceeding that for which the roof was designed as determined by Section 1101.7. Scuppers shall not have an opening dimension of less than 4 inches (102 mm). The flow through the primary system shall not be considered when sizing the secondary roof drain system.

(Reason: Specify that overflow drainage is to be the same size as the normal roof drains.)

AA. Section 1109; delete this section.

BB. Section 1202.1; delete Exceptions 1 and 2.

(Reason: State law already specifies that Med Gas systems must comply with NFPA 99.)

Secs. 3.02.202–3.02.250 Reserved

Division 6. Mechanical Code

Sec. 3.02.251 Adopted

The International Mechanical Code 2018 edition, is hereby adopted as the mechanical code within the city.

~~(a) The following code is hereby adopted by reference as though it were copied herein fully:~~

~~Standard Mechanical Code, 1997 edition.~~

~~(b) Any matters in said code which are contrary to existing ordinances of the city shall prevail.~~

~~(Ordinance 198 adopted 12/9/99)~~

Sec. 3.02.252 Local Amendments

The following sections, paragraphs, and sentences of the *2018 International Mechanical Code* (IMC) are hereby amended as follows: Standard type is text from the IMC. Underlined type is text inserted. ~~Lined through type is deleted text from the IMC.~~

A. Section 102.8; change to read as follows:

102.8 Referenced Codes and Standards. The codes and standards referenced herein shall be those that are listed in Chapter 15 and such codes, when specifically adopted, and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between provisions of this code and the referenced standards, the provisions of this code shall apply. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the adopted amendments. Any reference to NFPA 70 shall

mean the Electrical Code as adopted.

(Reason: Legal wording to recognize locally adopted codes and amendments adopted with referenced codes.)

B. Section 306.3; change to read as follows:
306.3 Appliances in Attics. Attics containing appliances shall be provided . . . *{bulk of paragraph unchanged}* . . . side of the appliance. The clear *access* opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), and large enough to allow removal of the largest appliance. As a minimum, for *access* to the attic space, provide one of the following:

4. A permanent stair.

5. A pull-down stair with a minimum 300 lb. (136 kg) capacity.

6. An *access* door from an upper floor level.

7. *Access* Panel may be used in lieu of items 1, 2, and 3 with prior approval of the code official due to building conditions.

Exceptions:

1. The passageway and level service space are not required where the appliance is capable of being serviced and removed... *{remainder of section unchanged}*

(Reason: To provide a safe means of accessibility to appliances in attics and to allow for different types of construction limitations. Consistent with regional amendment to International Fuel and gas Code (IFGC) 306.3.)

C. *Section 306.5; change to read as follows:*

306.5 Equipment and Appliances on Roofs or Elevated Structures. Where *equipment* requiring *access* or appliances are located on an elevated structure or the roof of a building such that personnel will have to climb higher than 16 feet (4877 mm) above grade to access, an interior or exterior means of access shall be provided. Exterior ladders providing roof *access* need not extend closer than 12 feet (2438 mm) to the finish grade or floor level below and shall extend to the *equipment* and appliances' level service space. Such *access* shall . . . *{bulk of section to read the same}* . . . on roofs having a slope greater than four units vertical in 12 units horizontal (33-percent slope). ... *{remainder of text unchanged}*.

(Reason: To assure access to roof appliances and provide options to not extend exterior ladders to grade. Consistent with IFGC amendments.)

D. *Section 306.5.1; change to read as follows:*

306.5.1 Sloped Roofs. Where appliances, *equipment*, fans or other components that require service are installed on a roof having a slope of three units vertical in 12 units horizontal (25-percent slope) or greater and having an edge more than 30 inches (762 mm) above grade at such edge, a catwalk at least 16 inches in width with substantial cleats spaced not more than 16 inches apart shall be provided from the roof *access* to a level platform at the appliance. The level platform shall be provided on each side of the appliance to which *access* is required

for service, repair or maintenance. The platform shall be not less than 30 inches (762 mm) in any dimension and shall be provided with guards. The guards shall extend not less than 42 inches (1067 mm) above the platform, shall be constructed so as to prevent the passage of a 21-inch-diameter (533 mm) sphere and shall comply with the loading requirements for guards specified in the *International Building Code…{remainder of text unchanged}*.

(Reason: To assure safe access to roof appliances. Consistent with IFGC amendments.)

E. Section 306; add Section 306.6 to read as follows:

306.6 Water Heaters Above Ground or Floor. When the mezzanine or platform in which a water heater is installed is more than eight (8) feet (2438 mm) above the ground or floor level, it shall be made accessible by a stairway or permanent ladder fastened to the building.

> **Exception:** A maximum 10 gallon water heater (or larger with approval) is capable of being accessed through a lay-in ceiling and the water heater installed is not more than ten (10) feet (3048 mm) above the ground or floor level and may be reached with a portable ladder.

(Reason: To provide safe access to water heaters and to provide lighting and receptacle for maintenance of equipment. Consistent with regional amendments to IFGC 306.7 and International Plumbing Code (IPC) 502.5.)

F. Section 307.2.3; amend item 2 to read as follows:

2. A separate overflow drain line shall be connected to the drain pan provided with the equipment. Such overflow drain shall discharge to a conspicuous point of disposal to alert occupants in the event of a stoppage of the primary drain. The overflow drain line shall connect to the drain pan at a higher level than the primary drain connection. However, the conspicuous point shall not create a hazard such as dripping over a walking surface or other areas so as to create a nuisance.

(Reason: Greater specificity in prohibited locations for condensate discharge. Consistent with regional amendment to IPC 314.2.1.)

G. Section 403.2.1; add an item 5 to read as follows:

8. Toilet rooms within private dwellings that contain only a water closet, lavatory, or combination thereof may be ventilated with an *approved* mechanical recirculating fan or similar device designed to remove odors from the air.

(Reason: Consistent with common regional practice. Consistent with regional amendment to International Residential Code (IRC) R303.3.)

H. Section 501.3; add an exception to read as follows:

501.3 Exhaust Discharge. ***The air removed by every mechanical exhaust system shall be discharged outdoors at a point where it will not cause a public nuisance and not less than the distances specified in Section 501.3.1. The air shall be discharged to a location from which it cannot again be readily drawn in by a ventilating system. Air shall not be exhausted into an attic, crawl space, or be directed onto walkways.***

Exceptions:

1. ***Whole-house ventilation-type attic fans shall be permitted to discharge into the attic space of dwelling units having private attics.***

2. ***Commercial cooking recirculating systems.***

3. Where installed in accordance with the manufacturer's instructions and where mechanical or natural ventilation is otherwise provided in accordance with Chapter 4, listed and labeled domestic ductless range hoods shall not be required to discharge to the outdoors.

4. Toilet room exhaust ducts may terminate in a warehouse or shop area when infiltration of outside air is present.

(Reason: Provide a reasonable alternative in areas where a large volume of outside air is present.)

I. Section 607.5.1; change to read as follows:

607.5.1 Fire Walls. Ducts and air transfer openings permitted in fire walls in accordance with Section 705.11 of the International Building Code shall be protected with listed fire dampers installed in accordance with their listing. For hazardous exhaust systems see Section 510.1-510.9 IMC.

(Reason: Correspond with un-amended IBC 710.7.)

Secs. 3.02.252–3.02.300 Reserved

Division 7. Gas Code

Sec. 3.02.301 Adopted

The International Fuel Gas Code 2018 edition, is hereby adopted as the fuel gas code within the city.

~~(a) The following code is hereby adopted by reference as though it were copied herein fully:~~

~~Standard Gas Code, 1997 edition.~~

~~(b) Any matters in said code which are contrary to existing ordinances of the city shall prevail.~~

~~(Ordinance 198 adopted 12/9/99)~~

Sec. 3.02.302 Local Amendments

The following sections, paragraphs, and sentences of the *2018 International Fuel Gas Code* are hereby amended as follows: Standard type is text from the IFGC. Underlined type is text inserted. ~~Lined through type is deleted text from IFGC.~~

A. Section 102.2; add an exception to read as follows:

Exception: Existing dwelling units shall comply with Section 621.2.

(Reason: Previous code provisions made unvented heater provisions retroactive except as provided for in local amendment. This amendment and amendment to IFGC 621.2 better clarify what the code already states: existing systems may stay unless considered unsafe.)

B. Section 102.8; change to read as follows:

102.8 Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Chapter 8 and such codes, when specifically adopted, and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between provisions of this code and the referenced standards, the provisions of this code shall apply. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the amendments as well. Any reference to NFPA 70 or the ICC *Electrical Code* shall mean the Electrical Code as adopted.

(Reason: Legal wording to recognize locally adopted codes and amendments adopted with referenced codes.)

C. Section 306.3; change to read as follows:

[M] 306.3 Appliances in attics. Attics containing appliances shall be provided . . . *{bulk of paragraph unchanged}* . . . side of the *appliance*. The clear *access* opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), and large enough to allow removal of the largest *appliance*. As a minimum, for *access* to the attic space, provide one of the following:

9. A permanent stair.

10. A pull down stair with a minimum 300 lb (136 kg) capacity.

11. An *access* door from an upper floor level.

12. *Access* Panel may be used in lieu of items 1, 2, and 3 with prior approval of the code official due to building conditions.

Exceptions:

1. The passageway and level service space are not required where the *appliance* is capable of being serviced and removed through the required opening.

2. Where the passageway is not less than ... *{bulk of section to read the same}*.

(Reason: To provide a safe means of accessibility to appliances in attics and to allow for different types of construction limitations. Consistent with regional amendment to IMC 306.3.)

D. Section 306.5; change to read as follows:

[M] 306.5 Equipment and Appliances on Roofs or Elevated Structures. Where *equipment* requiring *access* or appliances are located on an elevated structure or the roof of a building such that personnel will have to climb higher than 16 feet (4877 mm) above grade to access, an interior or exterior means of access shall be provided. Exterior ladders providing roof *access* need not extend closer than 12 feet (2438 mm) to the finish grade or floor level below and shall extend to the *equipment* and appliances' level service space. Such *access* shall . . . *{bulk of section to read the same}* . . . on roofs having a slope greater than four units vertical in 12 units horizontal (33-percent slope). ... *{remainder of text unchanged}*.

(Reason: To assure safe access to roof appliances. Consistent with IMC amendments.)

E. Section 306.5.1; change to read as follows:

[M] 306.5.1 Sloped roofs. Where appliances, *equipment*, fans or other components that require service are installed on a roof having a slope of 3 units vertical in 12 units horizontal (25-percent slope) or greater and having an edge more than 30 inches (762 mm) above grade at such edge, a catwalk at least 16 inches in width with substantial cleats spaced not more than 16 inches apart shall be provided from the roof *access* to a level platform at the appliance. The level platform shall be provided on each side of the appliance to which *access* is required for service, repair or maintenance. The platform shall be not less than 30 inches (762 mm) in any dimension and shall be provided with guards. The guards shall extend not less than 42 inches (1067 mm) above the platform, shall be constructed so as to prevent the passage of a 21-inch-diameter (533 mm) sphere and shall comply with the loading requirements for guards specified in the *International Building Code*.

(Reason: To assure safe access to roof appliances. Consistent with IMC amendments.)

F. Section 401.5; add a second paragraph to read as follows:

Both ends of each section of medium pressure gas piping shall identify its operating gas pressure with an *approved* tag. The tags are to be composed of aluminum or stainless steel and the following wording shall be stamped into the tag:

"WARNING
1/2 to 5 psi gas pressure
Do Not Remove"

(Reason: To protect homeowners and plumbers.)

G. Section 404.12; change to read as follows:

404.12 Minimum burial depth. Underground piping systems shall be installed a minimum depth of ~~12~~ 18 inches (~~305~~ 458 mm) top of pipe below grade, ~~except as provided for in Section 404.12.1~~.

404.12.1 Delete in its entirety

(Reason: To provide increased protection to piping systems and address reference number change.)

H. Section 406.4; change to read as follows:

406.4 Test pressure measurement. Test pressure shall be measured with a monometer or with a pressure-measuring device designed and calibrated to read, record, or indicate a pressure loss caused by leakage during the pressure test period. The source of pressure shall be isolated before the pressure tests are made. ~~Mechanical gauges used to measure test pressures shall have a range such that the highest end of the scale is not greater than five times the test pressure.~~

(Reason: To require the use of more accurate diaphragm gauges. Spring gauges do not provide accurate measurement below approximately 17 psig.)

I. Section 406.4.1; change to read as follows:

406.4.1 Test pressure. The test pressure to be used shall be no less than ~~1 1/2 times the proposed maximum working pressure, but no less than 3~~ 3 psig (20 kPa gauge), or at the discretion of the Code Official, the piping and valves may be tested at a pressure of at least six (6) inches (152 mm) of mercury, measured with a manometer or slope 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.~~ For tests requiring a pressure of 3 psig, diaphragm gauges shall utilize a dial with a minimum diameter of three and one half inches (3 ½"), a set hand, 1/10 pound incrementation and pressure range not to exceed 6 psi for tests requiring a pressure of 3 psig. For tests requiring a pressure of 10 psig, diaphragm gauges shall utilize a dial with a minimum diameter of three and one-half inches (3 ½"), a set hand, a minimum of 2/10 pound incrementation and a pressure range not to exceed 20 psi. For welded piping, and for piping carrying gas at pressures in excess of fourteen (14) inches water column pressure (3.48 kPa) (1/2 psi) and less than 200 inches of water column pressure (52.2 kPa) (7.5 psi), the test pressure shall not be less than ten (10) pounds per square inch (69.6 kPa). For piping carrying gas at a pressure that exceeds 200 inches of water column (52.2 kPa) (7.5 psi), the test pressure shall be not less than one and one-half times the proposed maximum working pressure.

Diaphragm gauges used for testing must display a current calibration and be in good working condition. The appropriate test must be applied to the diaphragm gauge used for testing.

(Reason: To provide for lesser pressures to coordinate with the use of more accurate diaphragm gauges.)

J. Section 409.1; add Section 409.1.4 to read as follows:

409.1.4 Valves in CSST installations. Shutoff valves installed with corrugated stainless steel (CSST) piping systems shall be supported with an *approved* termination fitting, or equivalent support, suitable for the size of the valves, of adequate strength and quality, and located at intervals so as to prevent or damp out excessive vibration but in no case greater than 12-inches from the center of the valve. Supports shall be installed so as not to interfere with the free expansion and contraction of the system's piping, fittings, and valves between anchors. All valves and supports shall be designed and installed so they will not be disengaged by movement of the supporting piping.

(Reason: To provide proper security to CSST valves. These standards were established in this region in 1999 when CSST was an emerging technology.)

K. Section 410.1; add a second paragraph and exception to read as follows:

Access to regulators shall comply with the requirements for *access* to appliances as specified in Section 306.

Exception: A passageway or level service space is not required when the regulator is capable of being serviced and removed through the required attic opening.

(Reason: To require adequate access to regulators.)

L. Section 621.2; add exception as follows:

621.2 Prohibited use. One or more unvented room heaters shall not be used as the sole source of comfort heating in a dwelling unit.

Exception: Existing *approved* unvented heaters may continue to be used in dwelling units, in accordance with the code provisions in effect when installed, when *approved* by the Code Official unless an unsafe condition is determined to exist as described in Section 108.7.

(Reason: Gives code official discretion.)

Secs. 3.02.303–3.02.350 Reserved

Division 8. ~~Housing Code~~ Energy Code

The International Energy Conservation Code 2018 edition, is hereby adopted as the energy conservation code within the city.

~~**Sec. 3.02.351 Adopted**~~

~~(a) The following code is hereby adopted by reference as though it were copied herein fully:~~

~~Standard Housing Code, 1997 edition.~~

~~(b) Any matters in said code which are contrary to existing ordinances of the city shall prevail.~~

~~(Ordinance 198 adopted 12/9/99)~~

Secs. 3.02.351~~2~~–3.02.400 Reserved

Division 9. Existing Buildings Code

Sec. 3.02.401 Adopted

The International Existing Building Code 2018 edition, is hereby adopted as the existing buildings code within the city.

~~(a) The following code is hereby adopted by reference as though it were copied herein fully:~~

~~Standard Existing Buildings Code, 1997 edition.~~

~~(b) Any matters in said code which are contrary to existing ordinances of the city shall prevail.~~

~~(Ordinance 198 adopted 12/9/99)~~

Sec. 3.02.402 Local Amendments

The following sections, paragraphs, and sentences of the *2018 International Existing Building Code* are hereby amended as follows: Standard type is text from the IEBC. Underlined type is text inserted. ~~Lined through type is deleted text from IEBC.~~

A. Section 102.4; change to read as follows:

[A] 102.4 Referenced codes and standards. The codes, when specifically adopted, and standards referenced in this code shall be considered part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections 102.4.1 and 102.4.2.

B. Section 202; amend definition of Existing Building as follows:

Existing Building - A building, structure, or space, with an approved final inspection issued under a code edition which is at least 2 published code editions preceding the currently adopted building code; or a change of occupancy.

C. Section 202; amend definition of Existing Structure as follows:

Existing Structure- A building, structure, or space, with an approved final inspection issued under a code edition which is at least 2 published code editions preceding the currently adopted building code; or a change of occupancy.

(Reason: To prevent potential abuses in new construction and shell buildings.)

D. Section 305.1; adds an exception to read as follows:

Exception: Components of projects regulated by and registered with Architectural Barriers Division of Texas Department of Licensing and Regulation shall be deemed to be incompliance with the requirements of this chapter.

(Reason: To coordinate with the IEBC and State Law.)

E. Section 305.4.2; add Number 7 to the list of requirements as follows:

7. At least one accessible family or assisted use toilet room shall be provided in accordance with Chapter 11 of the International Building Code.

(Reason: Accessible toilet rooms should be available for disabled occupants.)

F. Section 401.3 Flood Hazard Areas; delete this section:

(Reason: Flood hazard ordinances may be administered by other departments within the city.)

G. Section 405.2.5 Flood Hazard Areas; delete this section:

(Reason: Flood hazard ordinances may be administered by other departments within the city.)

H. Section 406.1; add a code reference to read as follows:

406.1 Material. Existing electrical wiring and equipment undergoing *repair* shall be allowed to be repaired or replaced with like material, in accordance with the requirements of NFPA 70.

(Reason: To ensure compliance with the NEC relative to any electrical repairs/replacement.)

I. Section 502.3 Flood Hazard Areas; delete this section:

(Reason: Flood hazard ordinances may be administered by other departments within the city)

J. Section 504.1.2; change to read as follows:

504.1.2 Existing fire escapes. Existing fire escapes shall continue to be accepted as a component in the means of egress in existing buildings only. Existing fire escapes shall be permitted to be repaired or replaced.

(Reason: *To add clarity and help reduce confusion associated with the amendment preventing new fire escapes.*)

K. Section 504.1.3; delete entire section:

504.1.3 ~~New fire escapes. New fire escapes for existing buildings shall be permitted only where exterior stairways cannot be utilized due to lot lines limiting stairway size or due to the sidewalks, alleys or roads at grade level. New fire escapes shall not incorporate ladders or access by windows.~~

(Reason: *To generally require a higher level of egress protection.*)

L. Section 507.3 Flood Hazard Areas; delete this section:

(Reason: Flood hazard ordinances may be administered by other departments within the city.)

M. Section 701.3 Flood Hazard Areas; delete this section:

(Reason: Flood hazard ordinances may be administered by other departments within the city.)

N. Section 702.6; add a code reference to read as follows:

702.6 Materials and methods. All new work shall comply with the materials and methods requirements in the *International Building Code*, *International Energy Conservation Code*, *International Mechanical Code*, National Electrical Code, and *International Plumbing Code*, as applicable, that specify material standards, detail of installation and connection, joints, penetrations, and continuity of any element, component, or system in the building.

(Reason: To provide a more complete list of potentially adopted codes.)

O. Section 802.5.1; change to read as follows:

802.5.1 Minimum requirement. Every portion of ~~a floor, such as a balcony or a loading dock,~~ open-sided walking surfaces, including *mezzanines, equipment platforms, aisles, stairs, ramps* and landings that is more than 30 inches (762 mm) above the floor or grade below and is not provided with guards, or those in which the existing guards are judged to be in danger of collapsing, shall be provided with guards.

(Reason: To be consistent with Building Code requirements for guards and unsafe conditions.)

P. Section 803.1; add sentence to read as follows:

For the purpose of fire sprinkler protection and fire alarm requirements included in this section, the *work area* shall be extended to include at least the entire tenant space or spaces bounded by walls capable of resisting the passage of smoke containing the subject *work area*, and if the *work area* includes a corridor, hallway, or other exit access, then such corridor, hallway, or other exit access shall be protected in its entirety on that particular floor level.

(Reason: The intent is to avoid work area protection that would result in partial sprinkler or fire alarm protection. Partial sprinkler protection not delineated by walls would be a clear violation of NFPA 13 and would not allow the sprinkler to perform or function as intended. Also, partial fire alarm coverage is a clear violation of the Fire Code, NFPA 72, and ADA.)

R. Section 803.2.4; change exception to read as follows:

Exception: Supervision is not required where the Fire Code does not require such for new construction
~~for the following:~~

~~1. Underground gate valve with roadway boxes. 2. Halogenated extinguishing systems.~~
~~3.Carbon dioxide extinguishing systems.~~
~~4. Dry and wet chemical extinguishing systems.~~
~~5.Automatic sprinkler systems installed in accordance with NFPA 13R where a common supply main is used to supply both domestic and automatic sprinkler systems and a separate shutoff valve for the automatic sprinkler system is not provided.~~

(Reason: The published exceptions are over-reaching and will result in inconsistencies among supervised protection systems and cause confusion for first responders as well.)

S. Section 803.3; change section to read as follows:

803.3 Standpipes. Refer to Section 1103.6 of the Fire Code for retroactive standpipe

requirements.
{Delete rest of Section 804.3.}

(Reason: The Fire Code already requires standpipes in these buildings (greater than 50 ft.) retroactively in Section 1103.6. This new section would negate/lessen those retroactive provisions already contained in the Fire Code.)

T. Section 805.2; *remove Exception #1*

Exception 1. ~~Where the work area and the means of egress serving it complies with NFPA101.~~

(Reason: NFPA 101 is not a commonly adopted code in the region and enforcement could be problematic.)

U. *Section* 805.3.1.2*; change to read as follows:*

805.3.1.2 Fire Escapes required. For other than Group I-2, where more than one exit is required an existing ~~or newly constructed~~ fire escape complying with section 805.3.1.2.1 shall be accepted as providing one of the required means of egress.

(Reason: Higher level of safety by not allowing new fire escapes.)

V. Section 805.3.1.2.1; change to read as follows:

805.3.1.2.1 Fire Escape access and details - …

1. [Remain unchanged]
2. Access to a ~~new~~ fire escape shall be through a door...
3. *Item Deleted*
4. ***[Remain unchanged]***
5. In all buildings of Group E occupancy up to and including the 12th grade, buildings of Group I occupancy, ~~rooming~~ boarding houses, and childcare centers, ladders of any type are prohibited on fire escapes used as a required means of egress.

(Reason: Higher level of safety by not allowing new fire escapes. Consistency with language and defined term in IBC.)

W. Section 805.5.2 Transoms; add language to read as follows:

805.5.2 Transoms. In all buildings of Group B, E, *[Remainder unchanged]*

(Reason: Transom windows were historically a common practice in school buildings and each jurisdiction should evaluate the impact on their stakeholders and their community with regards to section.)

X. Section 904.1; add sentence to read as follows:

For the purpose of fire sprinkler protection and fire alarm requirements included in this section, the *work area* shall be extended to include at least the entire tenant space or spaces bounded by walls containing the subject *work area*, and if the *work area* includes a corridor, hallway, or other exit access, then such corridor, hallway, or other exit access shall be

protected in its entirety on that particular floor level.

(Reason: The intent is to avoid work area protection that would result in partial sprinkler or fire alarm protection. Partial sprinkler protection not delineated by walls would be a clear violation of NFPA 13 and the Fire Code and would not allow the sprinkler system to perform or function as intended. Also, partial fire alarm coverage is a clear violation of the Fire Code, NFPA 72, and ADA.)

Y. Section 904.1.1; change sentence to read as follows:

904.1.1 High-rise buildings. An automatic sprinkler system shall be provided in work areas of ~~where the~~ high-rise buildings. ~~has a sufficient municipal water supply for the design and installation of an automatic~~ ~~sprinkler system at the site~~.

(Reason: Level 3 alterations are affecting more than 50% of the existing high-rise building, and as such, sprinkler protection is more than justifiable, even when fire pumps, etc., are necessary. It is noted that the work area method is one of three different methods available to the designer/owner in the IEBC.)

Z. Section 1103.3 Flood Hazard Areas; delete this section:

(Reason: Flood hazard ordinances may be administered by other departments within the city.)

AA. Section 1201.4 Flood Hazard Areas; delete this section:

(Reason: Flood hazard ordinances may be administered by other departments within the city.)

BB. Section 1301.3.2; change to read as follows:

1301.3.2 Compliance with other codes. *Buildings that are evaluated in accordance with this section*

shall comply with the International Fire Code. ~~*and International Property Maintenance Code.*~~

CC. Section 1301.3.3 Compliance with Flood Hazard Provisions; delete this section:

(Reason: Flood hazard ordinances may be administered by other departments within the city.)

DD. Section 1402.6 Flood Hazard Areas; delete this section:

(Reason: Flood hazard ordinances may be administered by other departments within the city.)

Secs. 3.02.403–3.02.450 Reserved

Division 10. ~~**Unsafe Building Abatement Code**~~ **Reserved**

~~**Sec. 3.02.451 Adopted**~~

~~(a) The following code is hereby adopted by reference as though it were copied herein fully:~~

~~Standard Unsafe Building Abatement Code, 1997 edition.~~

~~(b) Any matters in said code which are contrary to existing ordinances of the city shall prevail.~~

~~(Ordinance 198 adopted 12/9/99)~~

Secs. 3.02.4512–3.02.500 Reserved

Division 11. Swimming Pool Code

Sec. 3.02.501 Adopted

The International Swimming Pool and Spa Code 2018 edition, is hereby adopted as the swimming pool and spa code within the city.

~~(a) The following code is hereby adopted by reference as though it were copied herein fully:~~

~~Standard Swimming Pool Code, 1997 edition.~~

~~(b) Any matters in said code which are contrary to existing ordinances of the city shall prevail.~~

(Ordinance 198 adopted 12/9/99)

Sec. 3.02.502 Local Amendments

The following sections, paragraphs, and sentences of the *2018 International Swimming Pool and Spa Code* are hereby amended as follows: Standard type is text from the ISPSC. Underlined type is text inserted. ~~Lined through type is deleted text from ISPSC.~~

A. Section 102.9; Change to read as follows:

Section 102.9 Other laws. The provisions of this code shall not be deemed to nullify any provisions of local, state or federal law, to include but not limited to;

1. Texas Department of State Health Services (TDSHS); *Standards for Public Pools and Spas;*
   §285.181 through §285.208, (TDSHS rules do not apply to pools serving one- and two family dwellings or townhouses).
2. *Texas Department of Licensing and Regulation (TDLR); 2012 Texas Accessibility Standards (TAS)*, TAS provide the scoping and technical requirements for accessibility for Swimming Pool, wading pools and spas and shall comply with *2012 TAS, Section 242.* (TAS rules do not apply to pools serving one- and two family dwellings or townhouses).

Exception: Elements regulated under Texas Department of Licensing and Regulation (TDLR) and built in accordance with TDLR approved plans, including any variances or waivers granted by the TDLR, shall be deemed to be in compliance with the requirements of this Chapter.

(Reason: To clarify specific Texas statutes which regulate public pools and spas.)

B. Section 103.1; Change to read as follows:

Section 103.1 Creation of enforcement agency. The ~~Department of Building Safety~~ **[INSERT OFFICIAL BUILDING DEPARTMENT NAME OF JURSIDICTION]** is hereby created and the official in charge thereof shall be known as the *code official*. **[INSERT HEALTH DEPARTMENT NAME OF JURSIDICTION]** is hereby created and the official in charge thereof shall be known as the *code official* for operation and maintenance of any *public swimming pool* in accordance this code, local and state law.

(Reason: Reminder to be sure ordinance reads the same as designed by the City & the operation of public pools is enforced through the City's appropriate department procedure.)

C. Section 107.5; Change to read as follows:

107.5 Stop work orders. Upon notice from the code official, work on any system that is being done contrary to the provisions of this code or in a dangerous or unsafe manner shall immediately cease. Such notice shall be in writing and shall be given to the owner of the property, or to the owner's agent, or to the person doing the work. The notice shall state the conditions under which work is authorized to resume. Where an emergency exists, the code official shall not be required to give a written notice prior to

stopping the work. Any person who shall continue any work in or about the structure after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be in violation of this code. ~~liable to a fine of not less than [AMOUNT] dollars or more than [AMOUNT] dollars.~~

(Reason: Covered by general provisions of the Municipal Code of Ordinances.)

D. Section 202; DEFINITIONS; insert definition; change to read as follows:

[INSERT HEALTH DEPARTMENT NAME OF JURSIDICTION]: [INSERT HEALTH DEPARTMENT NAME OF JURSIDICTION] regulates the operation of public pools. Routine inspections on pools and spas open to the public are conducted to document compliance with the standards set forth in State law.

(Reason: The operation of public pools is enforced through **[INSERT HEALTH DEPARTMENT NAME OF JURSIDICTION]** *procedures.)*

E. Section 305; Change to read as follows:

305.1 General.
The provisions of this section shall apply to the design of barriers for restricting entry into areas having pools and spas. In one-and two-family dwellings and townhouses, where spas or hot tubs are equipped with a lockable safety cover complying with ASTM F1346 and swimming pools are equipped with a powered safety cover that complies with ASTM F1346, the areas where those spas, hot tubs or pools are located shall not be required to comply with Sections 305.2 through 305.7.

(Reason: To clarify requirements for dwellings and commercial properties and specific Texas statutes which regulate public pools and spas.)

F. Section 305.2; Change to read as follows:

305.2 Outdoor swimming pools and spas. Outdoor pools and spas and indoor swimming pools shall be surrounded by a barrier that complies with Sections 305.2.1 through 305.7 and in accordance with the Texas Administrative Code, Texas Health and Safety Code 757 for public pools.

(Reason: To clarify specific Texas statutes which regulate public pools and spas.)

G. Add subsection 305.2.7.1; to read as follows:

305.2.7.1 Chain link fencing prohibited. Chain link fencing is not permitted as a barrier in public pools built after January 1, 1994.

(Reason: To clarify specific Texas Health and Safety Code Chapter 757.003 (f).)

H. Section 305.4 structure wall as a barrier; Changes as follows:

305.4 Structure wall as a barrier. Where a wall ~~of a dwelling or structure~~ of a one and two family dwelling or townhouse or its accessory structure serves as part of a barrier and where doors or windows provide direct access to the pool or spa through that wall, one of the following shall be required:

1. Remainder Unchanged
2. Remainder Unchanged
3. Remainder Unchanged

The wall of a building with windows in accordance with *2018 International Building Code, Section 1030* in Group R2 occupancies shall not be used as part of pool enclosure. Other windows that are part of a pool yard enclosure shall be permanently closed and unable to be opened for public pools.

(Reason: To clarify specific Texas Health and Safety Code Chapter 757.007 & 2015 IBC, Section 1030.)

I. Section 305.6; Change to read as follows:

305.6 Natural barriers used in a one and two family dwelling or townhouse. In the case where the pool or spa area abuts the edge of a lake or other natural body of water, public access is not permitted or allowed along the shoreline, and required barriers extend to and beyond the water's edge a minimum of eighteen (18) inches, a barrier is not required between the natural body of water shoreline and the pool or spa.

(Reason: Specific Texas statutes do not allow the use of natural barriers in lieu of fencing for public pools per Chapter 757.003).

J. Section 307.1.4 Accessibility; Add exception to Section to 307.1.4 as follows:

Exception: Components of projects regulated by and registered with Architectural Barriers Division of Texas Department of Licensing and Regulation shall be deemed to be in compliance with the requirements of this chapter.

(Reason: To accommodate buildings regulated under state law. Further clarified to mean Components that are specifically addressed by TDLR shall be exempt.)

K. Section 310; Change to read as follows:

310.1 General. Suction entrapment avoidance for pools and spas shall be provided in accordance with APSP 7 or for public swimming pools in accordance with State of Texas Rules for Public Swimming Pools and Spas, Title 25 TAC Chapter 265 Subchapter L, Rule §265.190.

[Remainder unchanged]

(Reason: To clarify specific Texas statutes which regulate public pools and spas.)

L. Section 313.7; Change to read as follows:

313.7 Emergency shutoff switch for spas and hot tubs. ~~An emergency shutoff switch shall be provided to disconnect all power to recirculation and jet system pumps and air blowers. Emergency shutoff switches shall be: provided with access; located within sight of pools and spas and located not less than 5 feet (5') horizontally from the inside walls of the pool or spa.~~ A clearly labeled emergency shutoff or control switch for the purpose of stopping the motor(s) that provide power to the recirculation system and jet system shall be installed at a point readily accessible to the users and not less than 1.5 m (5 ft.) away, adjacent to, and within sight of the spa or hot tub. This requirement shall not apply to one and two family dwellings and townhouses.

~~**Exception:** Onground storable and permanent inground residential swimming pools.~~

(Reason: Language is from 2017 NEC Article 680.41.)

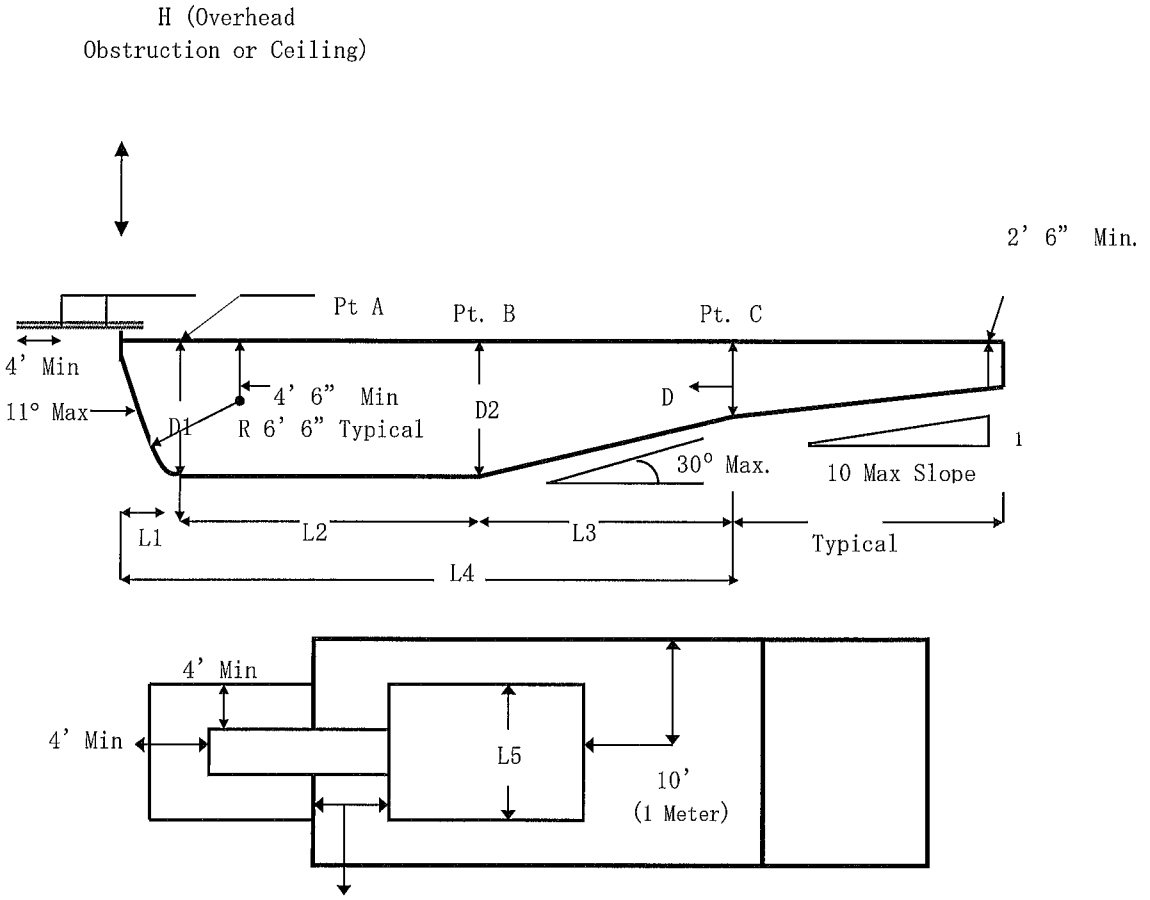
M. Section 402.12; Change to read as follows:

402.12 Water envelopes. The minimum diving water envelopes shall be in accordance with ~~Table 402.12~~ **Texas department of State Health services, Administrative Code Title 25, Chapter 265, Section 186 (e) and Figure: 25 TAC 256.186 (e) (6).** (Delete Table 402.12 and Figure 402.12)

N. ADD: Figure: 25 TAC §265.186 (e) (6)

Maximum Diving Board Height Over Water	¾ Meter	1 Meter	3 Meters
Max. Diving Board Length	12 ft.	16 ft.	16 ft.
Minimum Diving Board Overhang	2 ft. 6 in.	5 ft.	5 ft.
D1 Minimum	8 ft. 6 in.	11 ft. 2 in.	12 ft. 2 in.
D2 Minimum	9 ft.	10 ft. 10 in.	11 ft. 10 in.

D3 Minimum	4 ft.	6 ft.	6 ft.
L1 Minimum	4 ft.	5 ft.	5 ft.
L2 Minimum	12 ft.	16 ft. 5 in.	19 ft. 9 in.
L3 Minimum	14 ft. 10 in.	13 ft. 2 in.	13 ft. 11 in.
L4 Minimum	30 ft. 10 in.	34 ft. 7 in.	38 ft. 8 in.
L5 Minimum	8 ft.	10 ft.	13 ft.
H Minimum	16 ft.	16 ft.	16 ft.
From Plummet to Pool Wall at Side	9 ft.	10 ft.	11 ft. 6 in.
From Plummet to Adjacent Plummet	10 ft.	10 ft.	10 ft.



(Reason: To avoid conflict with 25 TAC Chapter 265.)

O. Section 402.13; Change to read as follows:

402.13 Ladders for diving equipment. Ladders shall be provided with two grab rails or two handrails. There shall be a uniform distance between ladder treads, with a 7 inch (178 mm minimum) distance and 12 inch (305 mm) maximum distance. Supports, platforms, steps, and ladders for diving equipment shall be designed to carry the anticipated loads. Steps and ladders shall be of corrosion-resistant material, easily cleanable and with slip-resistant tread;

~~**Exception:** The distance between treads for the top and bottom riser can vary.~~

(Reason: To avoid conflict with 25 TAC Chapter 265.186 (c)(8)(d).)

P. Section 411.2.1 & 411.2.2; Change to read as follows:

411.2.1 Tread dimensions and area. Treads shall have a minimum unobstructed horizontal depth (i.e., horizontal run) of 12 inches and a minimum width of 20 inches. ~~not be less than 24 inches (607mm) at the leading edge. Treads shall have an unobstructed surface area of not less than 240 square inches (154838mm2) and an unobstructed horizontal depth of not less than10 inches (254 mm) at the center line.~~

411.2.2 Risers. Risers for steps shall have a maximum uniform height of 10 inches, with the bottom riser height allowed to taper to zero ~~except for the bottom riser, shall have a uniform height of not greater than 12 inches (305 mm) measured at the center line. The bottom riser height is allowed to vary to the floor.~~

(Reason: To avoid conflict with 25 TAC Chapter 265.186 (c)(7)(A)& (B).)

Q. Section 411.5.1 & 411.5.2; Change to read as follows:

411.5.1 Swimouts. Swimouts, located in either the deep or shallow area of a pool, shall comply with all of the following:

1. Unchanged
2. Unchanged
3. Unchanged
4. The leading edge shall be visibly set apart and provided with a horizontal solid or broken stripe at least 1 inch wide on the top surface along the front leading edge of each step. This stripe shall be plainly visible to persons on the pool deck. The stripe shall be a contrasting color to the background on which it is applied, and the color shall be permanent in nature and shall be a slip-resistant surface

411.5.2 Underwater seats and benches. Underwater seats and benches, whether used alone or in conjunction with pool stairs, shall comply with all of the following:

1. Unchanged
2. Unchanged
3. Unchanged
4. Unchanged
5. The leading edge shall be visually set apart and provided with a horizontal solid or broken stripe at least 1 inch wide on the top surface along the front leading edge of each step. This stripe shall be plainly visible to persons on the pool deck. The stripe shall be a contrasting color to the background on which it is applied, and the color shall be permanent in nature and shall be a slip-resistant surface.
6. Unchanged
7. Unchanged

(Reason: To avoid conflict with 25 TAC Chapter 265.184 (u) & 265.186 (c)(10).)

R. Section 603.2; Change to read as follows:

603.2 ~~Class D-2 pools.~~ ~~Where a Class D-2 pool has a bather- accessible depth greater than 4 1/2 feet (1372 mm), the floor shall have a distinctive marking at the 4 1/2 feet (1372 mm)~~

~~water depth.~~

Class A and B pools: Class A and B pools over 5 feet deep: the transition point of the pool from the shallow area to the deep area of the pool shall be visually set apart with a 4-inch minimum width row of floor tile, a painted line, or similar means using a color contrasting with the bottom; and a rope and float line shall be provided between 1 foot and 2 feet on the shallow side of the 5-foot depth along and parallel to this depth from one side of the pool to the other side. The floats shall be spaced at not greater than 7-foot intervals; and the floats shall be secured so they will not slide or bunch up. The stretched float line shall be of sufficient size and strength to offer a good handhold and support loads normally imposed by users. If the owner or operator of the pool knows or should have known in the exercise of ordinary care that a rope or float is missing, broken, or defective, the problem shall be promptly remedied

(Reason: To avoid conflict with 25 TAC Chapter 265.199.)

S. Section 610.5.1; Change to read:

610.5.1 Uniform height of ~~9~~ 10 inches. Except for the bottom riser, risers at the centerline shall have a maximum uniform height of ~~9~~ 10 inches (~~229~~ 254 mm). The bottom riser height shall be permitted to vary from the other risers.

(Reason: To avoid conflict with 25 TAC Chapter 265.186 (c)(7)(B).)

T. Section 804 Diving Water Envelopes; Change to read as follows:

Section 804.1 General. The minimum diving water envelopes shall be in accordance with Table 804.1 and Figure 804.1, or the manufacturer's specifications, whichever is greater. Negative construction tolerances shall not be applied to the dimensions of the minimum diving water envelopes given in Table 804.1.

(Reason: To provide minimum standards and to clarify specific manufactures specifications of the diving equipment.)

Secs. 3.02.503–3.02.550 Reserved

~~**Division 12. Amusement Device Code**~~

~~**Sec. 3.02.551 Adopted**~~

~~(a) The following code is hereby adopted by reference as though it were copied herein fully:~~

~~Standard Amusement Device Code, 1997 edition.~~

~~(b) Any matters in said code which are contrary to existing ordinances of the city shall prevail.~~

~~(Ordinance 198 adopted 12/9/99)~~