CITY OF BELLMEAD
ORDINANCE NO. 2024-03

AN ORDINANCE OF THE CITY OF BELLMEAD, TEXAS, IS HEREBY AMENDED; CHAPTER 4 – BUILDINGS AND BUILDING REGULATIONS.; REPEALING ALL ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH; PROVIDING FOR SEVERABILITY; PROVIDING FOR INCLUSION IN THE CODE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City of Bellmead adopted the 2018 edition of the International Fire Code (IFC) with passage of Ordinance 2021-07; and,

WHEREAS, at this time, the North Central Texas Council of Governments (NCTCOG) recommended communities in the Dallas-Fort Worth metroplex also adopt several amendments to the 2018 IFC; and,

WHEREAS, Bellmead is the only community in our Central Texas region that adopted the NCTCOG Option B amendments which specifically impacts small business in Bellmead.

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

SECTION 1. That the facts and recitations contained in the preamble of this Ordinance are hereby found and declared to be true and correct.

SECTION 2. Chapter 4 of the Code of Ordinances of the City of Bellmead, Texas, is amended, to read as follows:

Sec. 4-27. Code adopted.

There are hereby adopted by the city, for the purpose of establishing rules and regulations for the construction, alternation, removal, demolition, equipment, use and occupancy, location and maintenance of buildings and structures, including permits, the following codes which are adopted by reference as though they were fully copied herein:

(1) 2018 International Building Code, including Appendices D, E, F, G, H, I, J, and K, including amendments.

   a. The ICC Electrical Code is no longer published as a separate document but the electrical provisions are included in Appendix K of the IBC, 2018 Edition.

(2) 2018 International Residential Code, including Appendices A, B, C, D, E, G, H, I, J, M, and T, including Amendments.

   a. The ICC Electrical Code is no longer published as a separate document but the electrical provisions are included in Appendix K of the IBC, 2018 Edition.

(3) 2018 International Fire Code, including Appendices A, B, C, D, E, F, G, I, K, L, and M.

a. The ICC Electrical Code is no longer published as a separate document but the electrical provisions are included in Appendix K of the IBC, 2018 Edition.
b. The 2018 Edition, National Electrical Code (NEC), as published by the National Fire Protection Association (NFPA).

(4) 2018 International Plumbing Code, including amendments.

(5) 2018 International Mechanical Code, including amendments.

(6) 2018 International Property Maintenance Code, including amendments.

(7) 2018 International Fuel Gas Code, including amendments.

(8) 2018 International Energy Conservation Code, including amendments.

(9) 2018 International Swimming Pool and Spa Code, including amendments.

(10) National Electric Code as adopted under the Texas Department of Licensing and Regulations.

Sec. 4-30. Building code amendments.

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.

(Reason: Legal wording to recognize locally adopted codes and amendments adopted with referenced codes. The former ICC Electrical Code is now Appendix K of this code but no longer called by that name.)

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.

[A] 105.2 Work exempt from permit.

6. Sidewalks and driveways not more than 30 inches (762 mm) above adjacent grade, and not over any basement or *story* below and are not part of an *accessible route* and not in the right-of-way.

110.3.5. Lath, gypsum board and gypsum panel product inspections. Delete exception:

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

SECTION 202 DEFINITIONS

[BG] 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 persons who are rendered incapable of self-preservation by the services provided or staff has accepted

responsibility to care recipients already incapable. This group may include but not limited to the following:

- Dialysis centers
- Procedures involving sedation
- 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 sedated for dental surgery or other services. Section 903.2.2 will now require such uses to be sprinkled if on other than the floor or exit discharge or if four or more persons are administered moderate sedation and/or general anesthesia on the level of exit discharge. Recommend (1.) Jurisdictions documents 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 administered 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 recipient's incapable of self-preservation allowed.)

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 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. Corresponds with IFC 202.)

ATRIUM. An opening connecting three or more stories… {Balance remains unchanged}

(Reason: Accepted practice in the region based on legacy codes. Section 1019 permits unenclosed two-story stairways under certain circumstances. Corresponds with IFC 202.)

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 align with IFC 202.)

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, except when applying this assembly requirements of Chapter 10 and 11.

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

304.1 Business Group B add to read as follows:

- Fire stations
- Police stations with detention facilities for 5 or less.

(Reason: Consistent with regional practice dating back to the legacy codes.)

307.1.1 High-Hazard Group H amend to read as follows:

Exception:

(previous exceptions unchanged)

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 2. Dry Cleaning Plant provision.

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

403.1 High-Rise Building; amend to read as follows:

Exception:

(previous exceptions unchanged)

3. The open-air portion of a building *{remainder unchanged}*

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

403.3 Automatic sprinkler system; delete Exception 2.

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

[F] 403.3.2 Water supply to required fire pumps. In buildings that are more than 120 feet (36.5 m) in building height, required fire pumps shall be supplied by connections to no fewer than two water mains located in different streets. Separate supply piping shall be provided between each connection to the water main and the pumps. Each connection and the supply piping between the connection and the pumps shall be sized to supply the flow and pressure required for the pumps to operate.

Exception: {No change to exception.}

(Reason: The 2009 edition of the IFC added this requirement based on a need for redundancy of the water supply similar to the redundancy of the power supply to the fire pumps required for such tall buildings, partially due to the fact that these buildings are rarely fully evacuated in a fire event. More commonly, the alarm activates on the floor of the event, the floor above and the floor below. Back-up power to the fire pump becomes critical for this reason. Certainly, the power is pointless if the water supply is impaired for any reason, so a similar requirement is provided here for redundant water supplies. The 2015 edition changes the requirement to only apply to very tall buildings over 420 ft. This amendment modifies/lowers the requirement to 120 ft., based on this same height requirement for fire service access elevators. Again, the language from the 2009 and 2012 editions of the code applied to any high-rise building. This compromise at 120 ft. is based on the above technical justification of defend-in-place scenarios in fire incidents in such tall structures.)

406.3.3.1 Carport separation; add 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 a least 10 feet (3,048 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.)

502.1 Address identification. New and existing buildings shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contract with their background. Address numbers shall be Arabic numerals or alphabet letters. Numbers shall not be spelled out. Each character shall be a minimum of 6 inches (152.4 mm) high with a minimum stroke width of ½ inch (12.7 mm). (Remainder of text unchanged).

(Reason: Call attention to addressing ordinance. Also matches amendment to IFC 505.1)

Table 506.2; delete sentence from table

(Reason: To eliminate the need for Appendix C adoption and remain consistent with 6,000 sq. ft. sprinkler provision.)

506.3.1 Minimum percentage of perimeter. To qualify for an area factor, increase based on frontage, a building shall have not less than 25 percent of its perimeter on a public way or open space. Such open space shall be either on the same lot or dedicated for public use and shall be accessed from a street or approved fire lane. 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.)

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.)

708.4.2 Fire blocks and draft stops 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 draft stopping. *{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 draft stopping. For this reason, omission of sprinklers permitted in accordance with NFPA 13 referenced standard should not be permitted with IBC exception requiring draft stopping in combustible construction.)

712.1.9; Two-story openings; amend to read as follows:

4. Is not open to a corridor in Group I and H occupancies.

(Reason: To be consistent with amended definition of an atrium.)

718.3 Draft stopping 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.)

718.4 Draft stopping 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.)

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

(Reason: Such alternative systems do not provide the reliability of automatic sprinkler protection in general. An applicant could pursue an Alternate Method request to help mitigate the reliability issues with these alterative 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. This also meets with local practices in the region.)

[F] 903.2 Where required. Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.12. Automatic Sprinklers shall not be installed in elevator machine rooms, elevator machine spaces, and elevator hoist ways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances. Storage shall not be allowed within the elevator machine room. Signage shall be provided at the entry doors to the elevator machine room indicating "ELEVATOR MACHINERY — NO STORAGE ALLOWED."

(Reason: Firefighter and public safety. This amendment eliminates the shunt trip requirement of the International Building Code Section 3006.5 for the purpose of elevator passenger and firefighter safety. This amendment is contingent on the Building Code amendment eliminating the Exceptions to Section 3006.4, such that passive fire barriers for these areas are maintained. This also meets with local practices in the region.)

[F] 903.2; Automatic Sprinkler Systems Where required; delete Exception.

(Reason: The exception deletion is due to the fact that such telecom areas pose an undue fire risk to the structural integrity of the building. This also meets with local practices in the region.)

[F] 903.2.9.3 Self-service storage facility. An automatic sprinkler system shall be installed throughout all self-service storage facilities.

(Reason: Fire departments are unable to inspect these commercial occupancies and are unaware of the contents being stored. Previous allowance to separate units by fire barriers is difficult to enforce maintenance after opening.)

903.2.11.7 High-Piled Combustible Storage. For any building with a clear height exceeding 12 feet (4,572 mm), see Chapter 32 of the IFC to determine if those provisions apply.

903.2.11.8 Spray Booths and Rooms. New and existing spray booths and spraying rooms shall be protected by an approved automatic fire-extinguishing system.

[F] 903.3.1.1.1 Exempt locations. When approved by the fire code official, automatic sprinklers shall not be required in the following rooms or areas where such … *{text unchanged}* … because it is damp, of fire-resistance-rated construction or contains electrical equipment.

1. A room where the application of water, or flame and water, constitutes a serious life or fire hazard.
2. A room or space where sprinklers are considered undesirable because of the nature of the contents, when approved by the code official.
3. Generator and transformer rooms, under the direct control of a public utility, separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a fire-resistance rating of not less than 2 hours.
4. {Delete}
5. Elevator machine rooms, and machinery spaces, and hoist ways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances.
6. {Delete}

(Reason: Gives more direction to code official. Exception 4 deleted to provide protection where fire risks are poorly addressed. Amendment 903.2 addresses Exception 5. above relative to the elimination of sprinkler protection in these areas to avoid the shunt trip requirement.)

[F] 903.3.1.2.3 Attached Garages and Attics. Sprinkler protection is required in attached garages, and in the following attic spaces:

1. {Remainder Unchanged}

2. {Remainder Unchanged}
3. Attic spaces of buildings that are two or more stories in height above grade plane or above the lowest level of fire department vehicle access.
4. Group R-4, Condition 2 occupancy attics not required by Item 1 or 3 to have sprinklers shall comply with one of the following:

{Remainder Unchanged}

(Reason: Attic protection is required due to issues with fire exposure via soffit vents, as well as firefighter safety. Several jurisdictions indicated experience with un-protected attic fires resulting in displacement of all building occupants. NFPA 13 provides for applicable attic sprinkler protection requirements, as well as exemptions to such, based on noncombustible construction, etc. Attached garages already require sprinklers via NFPA 13R — this amendment just re-emphasizes the requirement.)

[F] 903.3.1.3 NFPA 13D sprinkler systems. Automatic sprinkler systems installed in one- and two-family dwellings; Group R-3; Group R-4 Condition 1 and townhouses shall be permitted to be installed throughout in accordance with NFPA 13D or in accordance with state law.

(Reason: To allow the use of the Plumbing section of the IRC and recognize current state stipulations in this regard.)

[F] 903.3.1.4 Freeze protection. Freeze protection systems for automatic fire sprinkler systems shall be in accordance with the requirements of the applicable referenced NFPA standard and this section.

903.3.1.4.1 Attics. Only dry-pipe, pre-action, or listed antifreeze automatic fire sprinkler systems shall be allowed to protect attic spaces.

Exception: Wet-pipe fire sprinkler systems shall be allowed to protect non-ventilated attic spaces where:

1. The attic sprinklers are supplied by a separate floor control valve assembly to allow ease of draining the attic system without impairing sprinklers throughout the rest of the building, and
2. Adequate heat shall be provided for freeze protection as per the applicable referenced NFPA standard, and
3. The attic space is a part of the building' s thermal, or heat, envelope, such that insulation is provided at the roof deck, rather than at the ceiling level.

903.3.1.4.2 Heat trace/insulation. Heat trace/insulation shall only be allowed where approved by the fire code official for small sections of large diameter water-filled pipe.

(Reason: In the last few years, severe winters brought to light several issues with current practices to sprinkle attics, not the least of which was wet-pipe sprinklers in ventilated attics provided with space heaters, etc. for freeze protection of such piping. This practice is not acceptable for the protection of water-filled piping in a ventilated attic space as it does not provide a reliable means of maintaining the minimum 40 degrees required by NFPA, wastes energy, and presents a potential ignition source to the attic space. Listed antifreeze is specifically included because NFPA currently allows such even though there is no currently

listed antifreeze at the time of development of these amendments. The intent of this amendment is to help reduce the large number of freeze breaks that have occurred in the past with water-filled wet-pipe sprinkler systems in the future, most specifically in attic spaces.)

903.3.5; Water supplies; add to read as follows:

[F] Water supply as required for such systems shall be provided in conformance with the supply requirements of the respective standards; however, every water-based fire protection system shall be designed with a 10-psi safety factor. Reference Section 507.4 for additional design requirements.

(Reason: To define uniform safety factor.)

903.4; Sprinkler system supervision and alarms; add after the exceptions to read as follows:

[F] Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

(Reason: To avoid significant water losses. Consistent with amendment to IFC 905.9.)

903.4.2; Alarms; add to read as follows:

[F] The alarm device required on the exterior of the building shall be a weatherproof horn/strobe notification appliance with a minimum 75 candela strobe rating, installed as close as practicable to the fire department connection.

(Reason: Fire department connections are not always located at the riser; this allows the fire department faster access.)

905.1.1 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 when foreign material is present, 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 are 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. Corresponds to IFC 901.6.1.)

[F] 905.2 Installation standard. Standpipe systems shall be installed in accordance with this section and NFPA 14. Fire department connections for standpipe systems shall be in accordance with Section 912 Manual dry standpipe systems shall be supervised with a minimum of 10 psig and a maximum of 40 psig air pressure with a high/low alarm.

(Reason: To define manual dry standpipe supervision requirements. Helps ensure the integrity of the standpipe system via supervision, such that open hose valves will result in a supervisory low air alarm.)

[F] 905.3.9 Buildings exceeding 10,000 sq. ft. In buildings exceeding 10,000 square feet in area per story and where any portion of the building' s interior area is more than 200 feet (60,960 mm) of travel, vertically and horizontally, from the nearest point of fire department vehicle access, Class I automatic wet or manual wet standpipes shall be provided.

Exceptions:

1. Automatic dry and semi-automatic dry standpipes are allowed as provided for in NFPA 14.
2. R-2 occupancies of four stories or less in height having no interior corridors.

(Reason: Allows for the rapid deployment of hose lines to the body of the fire.)

905.4 Location of Class I standpipe hose connections; amend to read as follows:

[F] 1. In every required stairway, a hose connection shall be provided for each story above and below grade. Hose connections shall be located at an intermediate landing between stories, unless otherwise approved by the fire code official.

2. {No change.}

3. In every exit passageway, at the entrance from the exit passageway to other areas of a building.

Exception: Where floor areas adjacent to an exit passageway are reachable from an exit stairway hose connection by a … No change to rest.}

4. {No change.}

5. Where the roof has a slope less than four units vertical in 12 units horizontal (33.3 percent slope), each standpipe shall be provided with a two-way a-hose connection located to serve the roof or at the highest landing of an exit stairway with stair access to the roof provided in accordance with Section 1011.12.

6. {No change.}

7. When required by this Chapter, standpipe connections shall be placed adjacent to all required exits to the structure and at two hundred feet (200') intervals along major corridors thereafter, or as otherwise approved by the fire code official.

(Reason: Item 1, 3, and 5 amendments to remove 'interior' will help to clarify that such connections are required for all 'exit' stairways, to ensure firefighter capabilities are not diminished in these tall buildings, simply because the stair is on the exterior of the building. Item 5 reduces the amount of pressure required to facilitate testing, and provides backup protection for fire fighter safety. Item 7 allows for the rapid deployment of hose lines to the body of the fire.)

905.9; Valve supervision; add after the exceptions to read as follows:

[F] Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

(Reason: To avoid significant water losses. Consistent with amendment to IFC 903.4.)

[F] 907.1.4 Design standards. Where a new fire alarm system is installed, the devices shall be addressable. Fire alarm systems utilizing more than 20 smoke detectors shall have analog initiating devices.

(Reason: Provides for the ability of descriptive identification of alarms, and reduces need for panel replacement in the future. Updated wording to match the language of the new requirement at 907.5.2.3. Change of terminology allows for reference back to definitions of NFPA 72.)

[F] 907.2.1 Group A. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group A

occupancies having an occupant load of 300 or more persons or more than 100 persons above or below the lowest level of exit discharge. Group A occupancies not separated from one another in accordance with Section 707.3.10 of the *International Building Code* shall be considered as a single occupancy for the purposes of applying this section. Portions of Group E occupancies occupied for assembly purposes shall be provided with a fire alarm system as required for the Group E occupancy.

Exception: {No change.}

Activation of fire alarm notification appliances shall:

1. Cause illumination of the means of egress with light of not less than 1 foot-candle (11 lux) at the walking surface level, and
2. Stop any conflicting or confusing sounds and visual distractions.

(Reason: Increases the requirement to be consistent with Group B requirement. Also addresses issue found in Group A occupancies of reduced lighting levels and other A/V equipment that distracts from fire alarm notification devices or reduces ability of fire alarm system to notify occupants of the emergency condition.)

[F] 907.2.3 Group E. A manual fire alarm system that initiates the occupant notification signal utilizing an emergency voice/alarm communication system meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall be installed in Group E educational occupancies. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system. An approved smoke detection system shall be installed in Group E Day Care occupancies. Unless separated by a minimum of 100' open space, all buildings, whether portable buildings or the main building, will be considered one building for alarm occupant load consideration and interconnection of alarm systems.

Exceptions:

1. {No change.}

   1.1. Residential In-Home day care with not more than 12 children may use interconnected single station detectors in all habitable rooms. (For care of more than five children 2½ or less years of age, see Section 907.2.6.)

{No change to remainder of exceptions.}

(Reason: To distinguish educational from day care occupancy minimum protection requirements. Further, to define threshold at which portable buildings are considered a separate building for the purposes of alarm systems. Exceptions provide consistency with State law concerning such occupancies.)

907.2.12; High-rise buildings; amend to read as follows:

Exception:

{Previous exceptions unchanged}

[F] 3. Open air portions of buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the *International Building Code*; however, this exception does not apply

to accessory uses including but not limited to sky boxes, restaurants and similarly enclosed areas.

(Reason: To indicate that enclosed areas within open air seating type occupancies are not exempted from automatic fire alarm system requirements.)

[F] 907.4.2.7 Type. Manual alarm initiating devices shall be an approved double action type.

(Reason: Helps to reduce false alarms.)

[F] 907.6.1.1 Wiring Installation. All fire alarm systems shall be installed in such a manner that a failure of any single initiating device or single open in an initiating circuit conductor will not interfere with the normal operation of other such devices. All signaling line circuits (SLC) shall be installed in such a way that a single open will not interfere with the operation of any addressable devices (Class A). Outgoing and return SLC conductors shall be installed in accordance with NFPA 72 requirements for Class A circuits and shall have a minimum of four feet separation horizontal and one foot vertical between supply and return circuit conductors. The initiating device circuit (IDC) from a signaling line circuit interface device may be wired Class B, provided the distance from the interface device to the initiating device is ten feet or less.

(Reason: To provide uniformity in system specifications and guidance to design engineers. Improves reliability of fire alarm devices and systems.)

907.6.3; Initiation device identification; delete all four Exceptions.

(Reason: To assist responding personnel in locating the emergency event for all fire alarm systems.)

907.6.6; Monitoring; add sentence at end of paragraph to read as follows:

[F] See 907.6.3 for the required information transmitted to the supervising station.

(Reason: To assist responding personnel in locating the emergency event for all fire alarm systems. This was moved from 907.6.5.3 in the 2012 IFC and reworded to match new code language and sections.)

[F] 909.22 Stairway or ramp pressurization alternative. Where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and the stair pressurization alternative is chosen for compliance with Building Code requirements for a smokeproof enclosure, interior exit stairways or ramps shall be pressurized to a minimum of 0.10 inches of water (25 Pa) and a maximum of 0.35 inches of water (87 Pa) in the shaft relative to the building measured with all interior exit stairway and ramp doors closed under maximum anticipated conditions of stack effect and wind effect. Such systems shall comply with Section 909, including the installation of a separate fire-fighter's smoke control panel as per Section 909.16, and a Smoke Control Permit shall be required from the Fire Department as per Section 105.7.

[F] 909.22.1 Ventilating equipment. The activation of ventilating equipment for the stair or ramp Pressurization system shall be by smoke detectors installed at each floor level at an approved location at the entrance to the smokeproof enclosure. When the closing device for the stairway or ramp shaft and vestibule doors is activated by smoke detection or power failure, mechanical

equipment shall activate and operate at the required performance levels. Smoke detectors shall be installed in accordance with Section 907.3.

[F] 909.22.1.1 Ventilation systems. Smokeproof enclosure ventilation systems shall be independent of other building ventilation systems. The equipment, control wiring, power wiring and ductwork shall comply with one of the following:

1. Equipment, control wiring, power wiring and ductwork shall be located exterior to the building and directly connected to the smokeproof enclosure or connected to the smokeproof enclosure by ductwork enclosed by not less than 2-hour fire barriers constructed in accordance with Section 707 of the Building Code or horizontal assemblies constructed in accordance with Section 711 of the Building Code, or both.
2. Equipment, control wiring, power wiring and ductwork shall be located within the smokeproof enclosure with intake or exhaust directly from and to the outside or through ductwork enclosed by not less than 2-hour barriers constructed in accordance with Section 707 of the Building Code or horizontal assemblies constructed in accordance with Section 711 of the Building Code, or both.
3. Equipment, control wiring, power wiring and ductwork shall be located within the building if separated from the remainder of the building, including other mechanical equipment, by not less than 2-hour fire barriers constructed in accordance with Section 707 of the Building Code or horizontal assemblies constructed in accordance with Section 711 of the Building Code, or both.

Exceptions:

1. Control wiring and power wiring utilizing a 2-hour rated cable or cable system.
2. Where encased with not less than 2 inches (51 mm) of concrete.
3. Control wiring and power wiring protected by a listed electrical circuit protective system with a fire-resistance rating of not less than 2 hours.

[F] 909.22.1.2 Standby power. Mechanical vestibule and stairway and ramp shaft ventilation systems and automatic fire detection systems shall be provided with standby power in accordance with Section 2702 of the Building Code.

[F] 909.22.1.3 Acceptance and testing. Before the mechanical equipment is approved, the system shall be tested in the presence of the fire code official to confirm that the system is operating in compliance with these requirements.

(Reason: To assist with enforcement of such as a smoke control system, as per Section 909.6.3, especially since a permit is now specifically required for such systems in the Fire Code. Also ensures that a firefighter's override panel is provided as per 909.16 for such systems. The above amendment copies the applicable requirements for such systems from Section 909.20 of the Building Code into the Fire Code. Although the published code did copy the elevator pressurization requirements into the Fire Code, it did not copy over the stair pressurization requirements.)

910.2; Smoke and Heat Removal Where required; amend to read as follows:

Exceptions: {previous exceptions unchanged}

[F] 2. Only manual smoke and heat removal shall not be required in areas of buildings equipped with early suppression fast-response (ESFR) sprinklers. Automatic smoke and heat removal is prohibited.

3. Only manual smoke and heat removal shall aet be required in areas of buildings equipped with control mode special application sprinklers with a response time index of 50 (m* S) ½ or less that are listed to control a fire in stored commodities with 12 or fewer sprinklers. Automatic smoke and heat removal is prohibited.

(Reason: Allows the fire department to control the smoke and heat during and after a fire event, while still prohibiting such systems from being automatically activated, which is a potential detriment to the particular sprinkler systems indicated.)

[F] 910.2.3 Group H. Buildings and portions thereof used as a Group H occupancy as follows:

1. In occupancies classified as Group H-2 or H-3, any of which are more than 15,000 square feet 1394 m^2) in single floor area.

Exception: Buildings of noncombustible construction containing only noncombustible materials.

2. In areas of buildings in Group H used for storing Class 2, 3, and 4 liquid and solid oxidizers, Class 1 and unclassified detonable organic peroxides, Class 3 and 4 unstable (reactive) materials, or Class 2 or 3 water-reactive materials as required for a high-hazard commodity classification.

Exception: Buildings of noncombustible construction containing only noncombustible materials.

(Reason: Maintains a fire protection device utilized in such occupancies where it is sometimes necessary to allow chemicals to bum out, rather than extinguish.)

[F] 910.3.4 Vent operation. Smoke and heat vents shall be capable of being operated by approved automatic and manual means. Automatic operation of smoke and heat vents shall conform to the provisions of Sections 910.3.2.1 through 910.3.2.3.

[F] 910.3.4.1 Sprinklered buildings. Where installed in buildings equipped with an approved automatic sprinkler system, smoke and heat vents shall be designed to operate automatically. The automatic operating mechanism of the smoke and heat vents shall operate at a temperature rating at least 100 degrees F (approximately 38 degrees Celsius) greater than the temperature rating of the sprinklers installed.

Exception: Manual only system per 910.2

[F] 910.3.4.2 Non-sprinklered buildings. Where installed in buildings not equipped with an approved automatic sprinkler system, smoke and heat vents shall operate automatically by actuation of a heat-responsive device rated at between 100T (56°C) and 220T (122°C) above ambient.

Exception: Listed gravity-operated drop out vents

(Reason: Amendment continues to keep applicable wording from prior to the 2012 edition of the IFC. Specifically, automatic activation criteria are no longer specifically required in the published code. Specifying a temperature range at which smoke and heat vents should activate in sprinklered buildings helps to ensure that the sprinkler system has an opportunity to activate and control the fire prior to vent operation.)

[F] 910.4.3.1 Makeup air. Makeup air openings shall be provided within 6 feet (1,829 mm) of the floor level. Operation of makeup air openings shall be automatic. The minimum gross area of makeup air inlets shall be 8 square feet per 1,000 cubic feet per minute (0.74 m2 per 0.4719 m3/s) of smoke exhaust.

(Reason: Makeup air has been required to be automatic for several years now in this region when mechanical smoke exhaust systems are proposed. This allows such systems to be activated from the smoke control panel by first responders without having to physically go around the exterior of the building opening doors manually. Such requires a significant number of first responders on scene to conduct this operation and significantly delays activation and/or capability of the smoke exhaust system.)

[F] 910.4.4 Activation. The mechanical smoke removal system shall be activated automatically by the automatic sprinkler system or by an approved fire detection system. Individual manual controls shall also be provided.

Exception: Manual only systems per Section 910.2.

(Reason: The provision of a manual only mechanical smoke removal system does not provide equivalency with automatic smoke and heat vents. This amendment clarifies that the primary intent is for automatic systems, unless exceptions are provided as in 910.2 — consistent with the charging statements of the section.)

[F] 912.2.3 Hydrant distance. An approved fire hydrant shall be located within 100 feet of the fire department connection as the fire hose lays along an unobstructed path.

(Reason: To accommodate limited hose lengths, improve response times where the FDC is needed to achieve fire control, and improve ease of locating a fire hydrant in those situations also. Also, consistent with NFPA 14 criteria.)

913.2.1; Protection of fire pump rooms; add second paragraph and exception to read as follows:

[F] When located on the ground level at an exterior wall, the fire pump room shall be provided with an exterior fire department access door that is not less than 3 ft. in width and 6 ft.-8 in. in height, regardless of any interior doors that are provided. A key box shall be provided at this door, as required by Section 506.1.

3. **Exception:** When it is necessary to locate the fire pump room on other levels or not at an exterior wall, the corridor leading to the fire pump room access from the exterior of the building shall be provided with equivalent fire resistance as that required for the pump room, or as approved by the fire code official. Access keys shall be provided in the key box as required by Section 506.1.

(Reason: This requirement allows fire fighters safer access to the fire pump room. The requirement allows access without being required to enter the building and locate the fire

pump room interior access door during a fire event. The exception recognizes that this will not always be a feasible design scenario for some buildings, and as such, provides an acceptable alternative to protect the pathway to the fire pump room.)

1006.2.2.7 Electrical Rooms. For electrical rooms, special exiting requirements may apply. Reference the electrical code as adopted.

(Reason: Cross reference necessary for coordination with the NEC which has exiting requirements as well.)

[P] 2901.1 Scope. *{existing text to remain}* The provision of this Chapter is 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: Given discretion to Code Official in case of code conflict.)

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.)

3005.7 Fire Protection in Machine rooms, control rooms, machinery spaces and control spaces.

3005.7.1 Automatic sprinkler system. The building shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, except as otherwise permitted by Section 903.1.1.1 and as prohibited by Section 3005.1.7.1.

3005.7.2.1 Prohibited locations. Automatic sprinklers shall not be installed in machine rooms, elevator machinery spaces, control rooms, control spaces and elevator hoist ways.

3005.7.2.2. Sprinkler system monitoring. The sprinkler system shall have a sprinkler control valve supervisory switch and water-flow initiating device provided for each floor that is monitored by the building's fire alarm system.

3005.7.3 Water protection. An approved method to prevent water from infiltrating into the hoist way enclosure from the operation of the automatic sprinkler system outside the elevator lobby shall be provided.

3005.7.4 Shunt trip. Means for elevator shutdown in accordance with Section 3005.5 shall not be installed.

(Reason: Firefighters and public safety. This amendment eliminates the shunt trip requirement of the International Building Code Section 3005.5 for the purpose of elevator passenger and firefighter safety. The new section above is intended to be identical to Sections 3007.2, 3007.4 for Fire Service Access Elevators and Sections 3008.2, 3008.3, and 3008.4 for Occupant Evacuation Elevators.)

Sec. 4-31. Residential code amendments.

102.4 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.... *{Remainder text unchanged}.*

102.4.3 Local amendments. 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 or the *National Electrical Code* (NEC) shall mean the Electrical Code as adopted.

R105.1 Permits Required. Any owner or owner's authorized agent who intends to construct, enlarge, alter, repair, move, demolish, or change the occupancy of a building or structure, to excavate or change the grade of any property, or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical, plumbing system, the installation of which is regulated by this code, or to cause any such work to be performed, shall first make application to the building official and obtain the required permit.

(Reason: Provide means to regulate grading affecting other properties.)

R105.2 Work exempt from permit.

Building:

11. Residential foundation repairs performed for the purpose of stabilizing an existing foundation without the removal of any existing concrete, except for the installation of new piers, pilings, or other associated support.

Grading:

1. Grading in an isolated, self-contained area, provided there is no danger to the public, and that such grading will not adversely affect adjoining properties.
2. Excavation for construction of a structure permitted under this code.
3. Cemetery graves.
4. Refuse disposal sites controlled by other regulations.
5. Excavations for wells or trenches for utilities.
6. Mining. quarrying, excavating, processing or stockpiling rock, sand, gravel, aggregate or clay controlled by other regulations provided such operations do not affect the lateral support of or significantly increase stresses in soil on adjacent properties.
7. Exploratory excavations performed under the direction of a registered professional engineer.

Exemption from the permit requirements of this section shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction.

(Reason: No inspections or other services are provided for this type of permit.)

R202 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 not less than two sides.

(Reason: To distinguish Townhouses on separate lots.)

R302.3 Two-family dwellings.

Exceptions:

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.)

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. (Removed "equipped with a self-closing device.")

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

R303.3 Bathrooms.

Exception: {existing text unchanged} Spaces containing only a water closet, a 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 local practice as recirculating fans are recognized as acceptable air movement.)

R315.2.2 Alterations, repairs and additions.

Exception:

1. {existing text remains}
2. Installation, alteration or repairs of all electrically powered mechanical systems or plumbing appliances.

(Reason: Code intent is to protect against the products of combustion.)

R321.1 Address identification. New and existing buildings shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contract with their background. Address numbers shall be Arabic numerals or alphabet letters. Numbers shall not be spelled out. Each character shall be a minimum of 6 inches (152.4 mm) high with a minimum stroke width of ½ inch (12.7 mm). {Remainder of text unchanged}.

(Reason: Call attention to addressing ordinance. Also matches amendment to IFC 505.1)

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.

Section R703.8.4.1.2; Veneer Ties for Wall Studs. add to read as follows:

In stud framed exterior walls all ties shall 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 carryover 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 Table in 2018 which provides for brick ties directly to sheathing.)

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 11 referenced for residential energy provisions. This approach simply minimizes the number of amendments to the IRC.)

M1305.1.3 Appliances in attics. Attics containing appliances shall be provided… {bulk of paragraph unchanged} … sides of the appliance where access is required. The clear access opening dimensions shall be not less than 20 inches by 30 inches (508 mm by 762 mm), or larger and large enough to allow removal of the largest appliance. A walkway to an appliance shall be rated as a floor as approved by the building official. 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.

(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 IPC 502.3, IFGC 306.3 and IMC 306.3.)

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

(Reason: Reflects regional practice and to reduce excessive runoff into storm drains.)

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

1. {text unchanged}
2. {text unchanged}
3. An auxiliary drain pain… {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.

(Reason: Reflects standard practice in this area.)

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.

(Reason: Reflects standard practice in this area.)

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 approximately to the difference between exhaust air rate and 400 cubic feet per minute. Such makeup air systems shall be equipped with no fewer than one damper complying with Section M1503.6.2.

Exception: Make-up 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 m 3/s) without providing makeup air. Exhaust hood systems capable of exhausting in excess of 600 cubic feet per minute (0.28 m 3/s) shall be provided with a makeup air at a rate approximately 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. Consistent with IMC 505.4)

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.)

G2415.2.1 Gas Pressure labeling. 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: ½ to 5 psi gas pressure - Do Not Remove"

(Reason: To protect homeowners and plumbers. Corresponds with IFGC 404.2.1)

G2415.12 (404.12) Minimum burial depth. Underground piping systems shall be installed a minimum depth of 18 inches (457 mm) below grade.

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

(Reason. To provide increased protection to piping systems. Corresponds with IFGC 404.12)

G2417.1 (406.1) General. Prior to acceptance and initial operation, all piping installations shall be visually 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 reasonable for determining that work will withstand the test pressure prescribed in the following tests.

(Reason: To utilize language used in the IFGC 406.1 regarding who is responsible for testing procedures.)

G2417.4 (406.4) Test pressure measurement. Test pressure shall be measured with a manometer 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. (remainder of paragraph removed).

(Reason: To require the use of more accurate diaphragm gauges. Spring gauges do not provide accurate measurement below approximately 17 psig. Corresponds to IFGC 406.4)

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. For tests requiring a pressure of 3 psig, diaphragm gauges shall utilize a dial with a minimum diameter of three and one-half inches (3½"), 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 requiting a pressure of 10 psig, diaphragm gauges shall utilize a dial with a minimum diameter of three and one-half inches (3½"), 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 pressure to coordinate with the use of more accurate diaphragm gauges. Corresponds with IFGC 406.4.1)

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 less than 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.

(Reason: To comply with accepted regional practices. Corresponds with IFGC 406.4.2)

G2420.1.4 (109.1.4) 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, or 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. Corresponds with IFGC 409.1.4)

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.

(Reason: Reflects regional practice and provides an additional measure of safety. Corresponds with IFGC 409.5.1)

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. Corresponds with IFGC 410.1)

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

(Reason: To comply with accepted regional practices. Corresponds with IFGC 411.1.3.3)

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.

(Reason: Gives code official discretion. Corresponds with IFGC 621.2)

G2448.1.1 (624.1.1) Installation requirements. The requirements for water heaters relative to sizing... {bulk of paragraph unchanged} ... with this code. 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. Corresponds to IFGC 624.1.1)

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. Where sheathing protects 15 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. Corresponds with IPC 305.1)

P2603.5.1 Sewer depth. Building sewers shall he 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. Corresponds with IPC 305.4.4)

P2604.3.1 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 lavers 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.)

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.

(Reason: Plastic burns degrading material over time on gas fired water heaters and to maintaining protection level. Corresponds to IPC 504.7 unamended)

P2801.6.1 Pan size and drain. The pan shall be not less than 1½ 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 ¾ 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 test unchanged}

(Reason: Regionally accepted practice. Corresponds with IFGC 504.7.1)

P2804.6.1 Requirements for discharge pipe.

1. {text unchanged}
2. {text unchanged}
3. Not be smaller than the diameter of the outlet of the valves served.
4. {text unchanged}

   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 manufacturer's installation instructions and installed with those instructions.

5. Discharge to the outdoors.

{remainder unchanged}

(Reason: To ensure the T & P is run to the exterior. Corresponds with IPC 504.6)

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 principal backflow prevention assembly. {remainder unchanged}

(Reason. To recognize regional practices. Corresponds with IPC 608.17.5)

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 13137.3, CSA B181.2 or CSA 13182.1 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.

(Reason: To keep the process of joining PVC pipe. Corresponds to IPC 705.10.2)

P3111 Combined waste and vent systems. Delete section.

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

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 (¼) 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. Corresponds with IPC 916.2)

SECTION 3. That all provisions of the ordinance of the City of Bellmead in conflict with the provisions of this Ordinance be, and the same are hereby, repealed, and all other provisions of the ordinances of the City of Bellmead not in conflict with the provisions of this Ordinance shall remain in full force and effect.

SECTION 4. That should any sentence, paragraph, subdivision, clause phrase, or section of this Ordinance be adjudged or held to be unconstitutional, illegal, or invalid, the same shall not affect the validity of this Ordinance as a whole, or any part or provision thereof other than the part so decided to be invalid, illegal, or unconstitutional, and shall not affect the validity of the Code of Ordinances as a whole.

SECTION 5. That an offense committed before the effective date of this Ordinance is governed by prior law and the provisions of the Code of Ordinance, as amended, in effect when the offense was committed, and the former law is continued in effect for this purpose.

SECTION 6. That this Ordinance shall take effect immediately from and after its passage and the publication of the caption, as the law and charter in such cases provide.

PASSED AND APPROVED ON FIRST READING MARCH 12, 2024.

PASSED AND APPROVED ON SECOND READING APRIL 9, 2024.

PASSED AND APPROVED ON THIRD AND FINAL READING APRIL 9, 2024.

DULY PASSED by the City Council of the City of Bellmead, Texas on this 9 day of April 2024

APPROVED:

Jasmine Neal, MAYOR

CITY OF BELLMEAD, TEXAS SEAL CITY SECRETARY

ATTEST:

Holly Owens, CITY SECRETARY

APPROVED AS TO FORM AND LEGALITY:

Charlie Buenger, CITY ATTORNEY

Regular 4/09/2024
Item # 7D
CCM/O 2024-03

CITY COUNCIL
MEMORANDUM FOR ORDINANCE

Prepared By: Fred Morris | Approval: Yousry Zakhary

Amendment of Article II – Building Code, Section 4-27 – Code Adopted

DESCRIPTION:

Consider an ordinance amending Article II, Section 4-27 of the Code of Ordinances, related to adoption of building & fire codes, to delete reference and requirements specified by the North Central Texas Council of Governments, Option B amendments.

BACKGROUND:

The City of Bellmead adopted the 2018 edition of the International Fire Code (IFC) with passage of Ordinance 2021-07. At that time, the North Central Texas Council of Governments (NCTCOG) recommended communities in the Dallas-Fort Worth metroplex also adopt several amendments to the 2018 IFC. It has been determined that the NCTCOG Option B amendments previously adopted can negatively impact local development and contradict the adopted 2018 International Fire Code.

Bellmead is the only community in our Central Texas region that adopted the NCTCOG Option B amendments. The specific regulation that impacts small business in Bellmead is a requirement for fire sprinkler systems. Under NCTCOG, structures over 6000 sq, ft. are required to install a fire sprinkler system. Without the NCTCOG amendment, the IFC requires fire systems at 10,000 sq ft.

Bellmead building and fire personnel have recognized the financial burden imposed on small businesses and it is very important that our codes support our local businesses that are remodeling and rehabilitating their properties. This amendment does not negatively impact fire safety in Bellmead. It brings Bellmead back in line with other communities in our area and will not burden local business with higher cost measures intended for the more densely populated D-FW metroplex.

The first reading was held on March 12, 2024. The first reading was approved by a vote of 4-0-0. Mayor Neal ad Mayor Pro Tem Winget were absent.

FISCAL IMPACT / FUNDING SOURCE:

None to the City of Bellmead. The amendment will reduce building costs on small businesses.

STAFF RECOMMENDATION:

Staff recommends approving Ordinance 2024-03, amending Article II, Section 4-27 of the Code of Ordinances, related to adoption of building & fire codes, to delete reference and requirements specified by the North Central Texas Council of Governments, Option B amendments.

ATTACHMENT(S):

Ordinance 2024-03 Draft and redlined