North Central Texas Council of Governments

Recommended Amendments to the 2024 International Building Code

North Central Texas Council of Governments Region

The following sections, paragraphs, and sentences of the *2024 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 double asterisk (**) at the beginning of a section identifies an amendment carried over from the 2021 edition of the code and a triple asterisk (***) identifies a new or revised amendment with the 2024 code.

Explanation of Options A and B:
Please note that as there is a wide range in firefighting philosophies / capabilities of cities across the region, OPTION "A" and OPTION "B" are provided in the Fire and Building Code amendments. Jurisdictions should choose one or the other based on their firefighting philosophies/capabilities when adopting code amendments.

***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.

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

***Section 101.4.8; add the following:**

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

(Reason: This was dropped when ICC quit publishing the ICC Electrical Code, but the Electrical Code still should be referenced regardless of how it is adopted.)

****Sections 103.1; amend to insert the Department Name**

103.1 Creation of enforcement agency. The [INSERT NAME OF DEPARTMENT] is hereby created and the official in charge thereof shall be known as the *building official*.
[Remainder Unchanged]
(Reason: Reminder to be sure ordinance reads the same as designated by the city and amend Section 101.1.)

****Section 104.2.4.1; Flood hazard areas.** *(Jurisdictions may consider the option **to amend or delete** depending on local enforcement and flood hazard ordinances.)*
(Reason: Flood hazard ordinances may be administered by other departments within the city.)

(Note: Sections 104.2.4.1, 104.3.1, 110.3.12.1, 1612, and 1603.1.7 are all inter-connected related to flood hazard areas, and amendments or deletions should be considered as a whole.)

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****Section [A] 104.3.1 Determination of substantially improved or substantially damaged existing buildings and structures in flood hazard areas.** *(Jurisdictions may consider the option* ***to amend or delete*** *depending on local enforcement and flood hazard ordinances.)*

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

*****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 m_2).~~

~~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: Item~~s~~ 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.)

*****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.)

***Section 110.3.6; 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. Deleting the exception would then require all gypsum panels to be inspected)

***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 persons 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 903.2.2.1 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.)*

***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.)

Option A
Section 202;

HIGH-RISE BUILDING. {No Change Required}

****HIGH PILED COMBUSTIBLE STORAGE: add a second paragraph to read as follows:***
Any building classified as a group S occupancy or Speculative Building exceeding 12,000 sq.ft. that has a clear height in excess of 14 feet, making it possible to be used for storage in excess of 12 feet, shall be considered to be high-piled storage. When a specific product cannot be identified (speculative warehouse), a fire protection system and life safety features shall be installed as for Class IV

commodities, to the maximum pile height.

(Reason: To protect worst-case scenarios in flexible or unknown situations.)

Option B
Section 202; amend definition to read as follows:

******HIGH-PILED COMBUSTIBLE STORAGE: add a second paragraph to read as follows:***
Any building classified as a group S Occupancy or Speculative Building exceeding 6,000 sq. ft. that has a clear height in excess of 14 feet, making it possible to be used for storage in excess of 12 feet, shall be considered to be high-piled storage. When a specific product cannot be identified (speculative warehouse), a fire protection system and life safety features shall be installed for Class IV commodities, to the maximum pile height.

HIGH-RISE BUILDING. A building with an occupied floor or occupied roof 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 firefighting capabilities of a jurisdiction.)

*****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.)

*****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.)

*****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~~,~~ except 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.)

*****Section 304.1; add the following to the list of occupancies:***

Fire stations
Police stations with detention facilities for 5 or less

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

*****Table 307.1.1; add the following sentence to Cleaning establishments with combustible liquid solvents*** Cleaning establishments with combustible liquid solvents… *{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.)

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.)

Section 403.3, Automatic Sprinkler System. Delete exception.
(Reason: To provide adequate fire protection to enclosed areas.)

Section 403.3.2; change to read as follows:

403.3.2 Water Supply to required Fire Pumps. In all buildings that are more than ~~420~~ 120 feet (128 36.6 m) in building height, ~~and buildings of Type IVA and IVB construction that are more than 120 feet (36.6 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 changed 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.)

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.)

Section 503.1.; add sentence to read as follows:
503.1. General. [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, except as allowed in Section 510.

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

Table 506.2; delete footnote i 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.)

***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 503.1.1)

***Section 708.4.3; change sentence to read as follows:**

708.4.3 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.

***Section 718.3; change sentence to read as follows:**

718.3 Draftstops 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 708.4.3 IBC code.)

***Section 718.4; change sentence to read as follows:**

718.4 Draftstops 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 708.4.3 IBC code.)

***Section 901.6.1.1; add 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 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 nighttime 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.)

***Section 901.6.4; add to read as follows:**

901.6.4 False Alarms and Nuisance Alarms. False alarms and nuisance alarms shall not be given, signaled or transmitted or caused or permitted to be given, signaled or transmitted in any manner.

(Reason: Places the responsibility on the business or property owner to maintain their fire alarm systems in approved condition. Allows the enforcement of "prohibition of false alarms". Replaces text lost from the legacy codes that helps to ensure the maintenance of life safety systems.)

***Section 901.7; change to read as follows:**

901.7 Systems Out of Service. Where a required *fire protection system* is out of service or in the event of an excessive number of activations, the fire department and the *fire code official* shall be notified immediately and, where required by the *fire code official*, the building shall either be evacuated or an *approved fire watch* shall be provided for all occupants left unprotected by the shut down until the *fire protection system* has been returned to service. … *{Remainder of section unchanged}*}

(Reason: Gives fire code official more discretion with regards to enforcement of facilities experiencing nuisance alarm or fire protection system activations necessitating correction/repair/replacement. The intent of the amendment is to allow local jurisdictions to enforce fire watches, etc., where needed to ensure safety of occupants where fire protection systems are experiencing multiple nuisance activations.)

***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.)

***Section 903.2; add paragraph to read as follows and delete the Exception:**

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 hoistways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances.

~~Exception: Spaces or areas in telecommunications buildings used exclusively for telecommunications equipment, associated electrical power distribution equipment, batteries not required to have an automatic sprinkler system by Section 1207 for energy storage systems and standby engines, provided that those spaces or areas are equipped throughout with an automatic smoke detection system in accordance with Section 907.2 and are separated from the remainder of the building by not less than 1-hour fire barriers constructed in accordance with Section 707 of the International Building Code or not less than 2-hour horizontal assemblies constructed in accordance with Section 711 of the International Building Code, or both.~~

(Reason: To ensure firefighter and public safety. This amendment eliminates the shunt trip requirement of

International Building Code Section 3005.5 for the purpose of elevator passenger and firefighter safety. This amendment is contingent on the Building Code amendment eliminating the exceptions to Section 403.3 and Section 3005.4, such that passive fire barriers for these areas are maintained. (The exception deletion is due to the fact that such areas pose an undue fire risk to the structural integrity of the building.)

******Section 903.2.2.1; change exception to read as follows:***

903.2.2.1 Ambulatory care facilities. An automatic sprinkler system shall be installed throughout the entire floor containing an ambulatory care facility where either of the following conditions exist at any time:

1. Four or more care recipients are incapable of self-preservation.

2. One or more care recipients that are incapable of self-preservation are located at other than the level of exit discharge serving such a facility.

In buildings where ambulatory care is provided on levels other than the level of exit discharge, an automatic sprinkler system shall be installed throughout the entire floor as well as all floors below where such care is provided, and all floors between the level of ambulatory care and the nearest level of exit discharge, the level of exit discharge, and all floors below the level of exit discharge.

Exception: Unless otherwise required by this code, floors classified as an open parking garage are not required to be sprinklered.

(Reason: To ensure that parking garages that are otherwise required to have automatic fire sprinkler protection are not unintendedly exempt by this exception.)

******Section 903.2.4.2; change to read as follows:***

903.2.4.2 Group F-1 distilled spirits. An automatic sprinkler system shall be provided throughout a Group F-1 fire area used for the manufacture of distilled spirits involving more than 120 gallons of distilled spirits (>20% alcohol) in the fire area at any one time.

(Reason: To establish a sprinkler criteria limit based on existing maximum allowable quantities provided for flammable liquids in a non-sprinklered space from Chapter 50 and allow very small distillery type operations without sprinkler requirements as has been historically allowed.)

******Section 903.2.9.3; change to read as follows:***

903.2.9.3 Group S-1 distilled spirits or wine. An automatic sprinkler system shall be provided throughout a Group S-1 fire area used for the bulk storage of distilled spirits or wine involving more than 120 gallons of distilled spirits or wine (>20% alcohol) in the fire area at any one time.

(Reason: To establish a sprinkler criteria limit based on existing maximum allowable quantities provided for flammable liquids in a non-sprinklered space from Chapter 50 and allow very small storage operations without sprinkler requirements as has been historically allowed.)

*****Section 903.2.9.4; delete Exception:***

903.2.9.4 Group S-1 upholstered furniture and mattresses. An automatic sprinkler system shall be provided throughout a Group S-1 fire area where the area used for the storage of upholstered furniture or mattresses exceeds 2,500 square feet (232 m^2).

~~**Exception:** Self-service storage facilities not greater than one story above grade plane where all storage spaces can be accessed directly from the exterior.~~

(Reason: Fire departments are unable to regularly inspect the interior of these commercial occupancies and are unaware of the contents being stored.)

******Section 903.2.9.5; add to read as follows:***

903.2.9.5 Self-Service Storage Facility. An automatic sprinkler system shall be installed throughout all self-service storage facilities. The minimum sprinkler system design shall be based on an Ordinary Hazard Group II classification, in accordance with NFPA 13 requirements. Physical construction in compliance with open-grid ceilings as per NFPA 13, such as an open metal grid ceiling or chicken wire that does not obstruct the overhead sprinkler protection, shall be installed to prevent storage from exceeding the lower of either 12 feet above finished floor or 18 inches beneath standard sprinkler head deflectors. At least one sprinkler head shall be provided in each storage unit/room (additional sprinklers may be necessary for compliance with NFPA 13 spacing requirements), regardless of wall height or construction type separating such units.

(Reason: Fire departments are unable to regularly inspect the interior of these commercial occupancies and are unaware of the contents being stored. The physical obstruction specification is to ensure maximum storage heights are not exceeded in these self-storage occupancies where enforcement of such has shown to be historically problematic for fire code officials and building managers.)

****Option A**

Section 903.2.11; change 903.2.11.3 and add 903.2.11.7 and 903.2.11.8, as follows:

903.2.11.3 Buildings 55 Feet or more in Height. An automatic sprinkler system shall be installed throughout buildings that have one or more stories ~~with an occupant load of 30 or more~~, other than penthouses in compliance with Section 1511 of the *International Building Code*, located 55 feet (16 764 mm) or more above the lowest level of fire department vehicle access, measured to the finished floor.

~~Exception:~~

~~1. Occupancies in Group F-2.~~

903.2.11.7 High-Piled Combustible Storage. For any building with a clear height exceeding 12 feet (4572 mm), see Chapter 32 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.

*****Option B**

Section 903.2.11; change 903.2.11.3 and add 903.2.11.7, 903.2.11.8, and 903.2.11.9 as follows:

903.2.11.3 Buildings ~~55~~ 35 feet or more in height. An automatic sprinkler system shall be installed throughout buildings that have one or more stories ~~with an occupant load of 30 or more~~, other than penthouses in compliance with Section 1511 of the *International Building Code*, located ~~55~~ 35 feet (~~16 764~~ 10 668 mm) or more above the lowest level of fire department vehicle access, measured to the finished floor.

~~Exception:~~

~~1. Occupancies in Group F-2.~~

903.2.11.7 High-Piled Combustible Storage. For any building with a clear height exceeding 12 feet (4572 mm), see Chapter 32 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.

903.2.11.9 Buildings Over 6,000 sq. ft. An automatic sprinkler system shall be installed throughout all buildings with a building area 6,000 sq. ft. or greater and in all existing buildings that are enlarged to be 6,000 sq. ft. or greater. For the purpose of this provision, fire walls shall not define separate buildings.

Exception: Open parking garages complying with 903.2.10

(Reason: Provides jurisdictions options as to their desired level of sprinkler protection based on multiple factors including firefighting philosophies/capabilities.)

******Section 903.3.1.1.1; change to read as follows:***

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 or space where sprinklers constitute a serious life or fire hazard because of the nature of the contents, where approved by the fire code official.
2. 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.
3. ~~Rooms or areas that are of noncombustible construction with wholly noncombustible contents.~~
4. ~~Fire service access~~ Elevator machine rooms, ~~and~~ machinery spaces, and hoistways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances.
5. ~~Machine rooms, machinery spaces, control rooms and control spaces associated with occupant evacuation elevators designed in accordance with Section 3008 of the International Building Code.~~

(Reason: Gives more direction to code official. Exception 3 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.)

******Section 903.3.1.1.4; add the following Section:***

903.3.1.1.4 Dry pipe sprinkler systems. Dry pipe sprinkler systems protecting fire areas of Type V construction shall be required to meet the 60 second water delivery time, per NFPA 13, to the system test connection regardless of the system size, unless more stringent criteria are applicable in NFPA 13, and all dry pipe sprinkler systems shall be trip tested to flow/discharge water to verify compliance with this requirement, unless otherwise approved by the fire code official.

(Reason: This provision is limited to Type V construction due to the unique need discharge water on to light weight wood construction members for rapid fire control. This requirement for dry system trip tests to guarantee water delivery times across all system sizes. Faster water delivery improves fire control capabilities by supplying water before the growing fire size overwhelms the fire sprinklers. The water delivery time test aids in identifying any delays in water reaching the fire in dry pipe systems, detecting any blockages in the pipe network, and ensuring the dry pipe valve is in good condition.)

***Section 903.3.1.2.2; change to read as follows:**

903.3.1.2.2 Corridors and balconies ~~in the means of egress~~. Sprinkler protection shall be provided in all corridors and for all balconies. ~~in the means of egress where any of the following conditions apply:~~

~~1. Corridors with combustible floor or walls.~~
~~2. Corridors with an interior change of direction exceeding 45 degrees (0.79 rad).~~
~~3. Corridors that are less than 50 percent open to the outside atmosphere at the ends.~~
~~4. Open-ended corridors and associated exterior stairways and ramps as specified in Section 1027.6, Exception 3.~~
~~5. Egress balconies not complying with Sections 1021.2 and 1021.3.~~

(Reason: Corridor protection is critical to the means of egress, and corridors are regularly utilized for miscellaneous storage, fixtures, artwork, food kiosks and beverage dispensers, and furnishings. Balcony protection is required due to issues with fire exposure via soffit vents and the potential for significant combustible loading.)

***Section 903.3.1.2.3; delete section and replace as follows:**

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

1. Attics that are used or intended for living purposes or storage shall be protected by an automatic sprinkler system.
2. Where fuel-fired equipment is installed in an unsprinklered attic, not fewer than one quick-response intermediate temperature sprinkler shall be installed above the equipment.
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:
    4.1. Provide automatic sprinkler system protection.
    4.2. Provide a heat detection system throughout the attic that is arranged to activate the building fire alarm system.
    4.3. Construct the attic using noncombustible materials.
    4.4. Construct the attic using fire-retardant-treated wood complying with Section 2303.2 of the International Building Code.
    4.5. Fill the attic with noncombustible insulation.

(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.)

***Section 903.3.1.3; change to read as follows:**

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 International Residential Code (IRC) and recognize current state stipulations in this regard.)

****Section 903.3.1.4; add to read as follows:**

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, preaction, or listed antifreeze automatic fire sprinkler systems shall be allowed to protect unheated 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 for sprinklering 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. 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.)

*****Section 903.3.5; add a second paragraph to read as follows:***

Water supply as required for such systems shall be provided in conformance with the supply requirements of the respective NFPA 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 for the region.)

******Section 903.3.9; change to read as follows:***

903.3.9 ~~High-rise~~ Building floor control valves. Approved supervised indicating control valves shall be provided at the point of connection to the riser as indicated below: ~~in high-rise buildings~~

1. In High Rise Buildings, f*loor control assemblies shall be located in protected stairwells, or as otherwise approved by the fire code official.*
2. In all other buildings, floor control assemblies shall be located as approved by the fire code official.

(Reason: Intent is to allow the ability to drain each floor's sprinkler system without draining the entire system, as well as to isolate each floor in the event of an impairment, such that only one floor is impaired at a time.)

******Section 903.4.1; add a second paragraph after the Exceptions to read as follows:***

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. Reference Section

903.3.9 for required floor control assemblies. 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, reduce false alarms, and eliminate undetected tampering of water supplies. Consistent with amendment to IFC 905.9.)

***Section 903.4.3; add second paragraph to read as follows:**

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 and ease of recognition of the FDC location, especially at night.)

****Section 905.3.8; add to read as follows:**

905.3.8 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 (60960 mm) of travel, vertically and horizontally, from the nearest point of fire department vehicle access, Class I standpipes shall be provided.

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

****Section 905.4; change Item 5, and add Item 7 to read as follows:**

5. Where the roof has a slope less than 4 units vertical in 12 units horizontal (33.3-percent slope), each standpipe shall be provided with a two-way ~~a~~ hose connection ~~shall be~~ located to serve the roof or at the highest landing of an ~~interior~~ 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 5 reduces the amount of pressure required to facilitate the required testing of NFPA 14 and 25, and provides backup protection for fire fighter safety. Item 7 allows for the rapid deployment of hose lines to the body of the fire.)

***Section 905.8; change to read as follows:**

905.8 Dry standpipes. Dry standpipes shall not be installed.

Exception: Where subject to freezing and in accordance with NFPA 14. Additionally, 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 Supervisory 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. NFPA 14 requires supervisory air for such, but does not provide pressure criteria for what that means.)

***Section 905.9; add a second paragraph after the exceptions to read as follows:**

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. Reference Section 903.3.9 for required floor control assemblies. 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 903.4.1)

*****Section 906.1(1); delete Exception 3 as follows:***

~~3. In storage areas of Group S occupancies where forklift, powered industrial truck or powered cart operators are the primary occupants,~~
~~fixed extinguishers, as specified in NFPA 10, shall not be required where in accordance with all of the following:~~
~~3.1. Use of vehicle-mounted extinguishers shall be approved by the fire code official.~~
~~3.2. Each vehicle shall be equipped with a 10-pound, 40A:80B:C extinguisher affixed to the vehicle using a mounting bracket approved~~
~~by the extinguisher manufacturer or the fire code official for vehicular use.~~
~~3.3. Not less than two spare extinguishers of equal or greater rating shall be available on-site to replace a discharged extinguisher.~~
~~3.4. Vehicle operators shall be trained in the proper operation, use and inspection of extinguishers.~~
~~3.5. Inspections of vehicle-mounted extinguishers shall be performed daily.~~

(Reason: This provision of only having vehicle-mounted fire extinguishers is not at all consistent with the practice of requiring extinguishers throughout based on travel distance. Often times, the vehicle is what has caused the incident and/or may be the source of the incident, so having the extinguisher vehicle-mounted results in greater potential injury of the user. This assumes the only occupants in the building are on a vehicle, which again, significantly reduces access to fire extinguishers throughout the building to other occupants. Future use of the building/tenancy may change further complicating the issue.)

******Section 907.1.4; add to read as follows:***

907.1.4 Design Standards. Where a new fire alarm system is installed, the devices shall be addressable.

(Reason: Provides for the ability of descriptive identification of alarms.)

******Section 907.2.1; change to read as follows:***

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 ~~where the~~ having an occupant load ~~due to the assembly occupancy is~~ of 300 or more persons, or where the ~~Group A~~ occupant load is 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.

Exceptions: {No change.}

(Reason: Increases the requirement to be consistent with Group B requirement.)

*****Section 907.2.3; change to read as follows:***

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 2 1/2 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.)

******Section 907.2.10.1; change to read as follows:***

907.2.10.1 Public- and Self-Storage Occupancies. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group S public- and self-storage occupancies ~~three stories or greater in height~~ for interior corridors and interior common areas. Visible notification appliances are not required within storage units.

Exception: {No change.}

(Reason: Because of the potential unknown fire load and hazards in self-storage type facilities, which could include flammable liquids for instance, as well as other hazardous materials, prompt evacuation in the event of fire alarm is needed; therefore, notification in the corridors/common areas is critical to all such occupancies, regardless of height.)

*****Section 907.2.13, Exception #3; change to read as follows:***

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.)

*****Section 907.4.2.7; add to read as follows:***

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

(Reason: Helps to reduce false alarms.)

*****Section 907.6.1.1; add to read as follows:***

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.)

***Section 907.6.3; delete all four Exceptions.**

907.6.3 Initiating device identification. The fire alarm system shall identify the specific initiating device address, location, device type, floor level where applicable and status including indication of normal, alarm, trouble and supervisory status, as appropriate.

~~**Exceptions:**~~

1. ~~Fire alarm systems in single-story buildings less than 22,500 square feet (2090 m2) in area.~~
2. ~~Fire alarm systems that only include manual fire alarm boxes, waterflow initiating devices and not more than 10 additional alarm-initiating devices.~~
3. ~~Special initiating devices that do not support individual device identification.~~
4. ~~Fire alarm systems or devices that are replacing existing equipment.~~

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

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

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.)

***Section 910.2.3; add to read as follows:**

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 burn out, rather than extinguish. This is based on legacy language establishing long-standing historical practice.)

***Section 910.4.3.1; change to read as follows:**

910.4.3.1 Makeup Air. Makeup air openings shall be provided within 6 feet (1829 mm) of the floor level. Operation of makeup air openings shall be ~~manual or~~ 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.)

***Section 912.2.3; add to read as follows:**

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.)

***Section 913.2.1; add second paragraph and exception to read as follows:**

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.

> **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 firefighters 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 and as such, provides an acceptable alternative to protect the pathway to the fire pump room.)

***Section 914.3.1.2; add section:**

914.3.1.2 Water Supply to required Fire Pumps. In all buildings that are more than ~~420~~ 120 feet (~~128~~ 36.6 m) in *building height*, ~~and buildings of Type IVA and IVB construction that are more than 120 feet (36.6 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.)

******Section 915 Carbon Monoxide (CO) Detection; delete and replace to read as follows:***

915.1 General. New and existing buildings shall be provided with carbon monoxide (CO) detection in accordance with Sections 915.2 through 915.5.

915.2 Where required. Carbon monoxide detection shall be provided in interior spaces, other than dwelling units or sleeping units, that are exposed to a carbon monoxide source in accordance with Sections 915.2.1 through 915.2.3. Carbon monoxide detection for dwelling units or sleeping units that are exposed to a carbon monoxide source shall be in accordance with Section 915.2.4.

915.2.1 Interior spaces with direct carbon monoxide sources. In all occupancies, interior spaces with a direct carbon monoxide source shall be provided with carbon monoxide detection located in close proximity to the direct carbon monoxide source and in accordance with Section 915.3.
Exception: Where environmental conditions in an enclosed space are incompatible with carbon monoxide detection devices, carbon monoxide detection shall be provided in an approved adjacent location.

915.2.2 Interior spaces adjacent to a space containing a carbon monoxide source. In Groups A, B, E, I, M and R Occupancies, interior spaces that are separated from and adjacent to an enclosed parking garage or an interior space that contains a direct carbon monoxide source shall be provided with carbon monoxide detection if there are communicating openings between the spaces. Detection devices shall be located in close proximity to communicating openings on the side that is furthest from the carbon monoxide source and in accordance with Section 915.3

Exceptions:

1. Where communicating openings between the space containing a direct carbon monoxide source and the adjacent space are permanently sealed airtight, carbon monoxide detection is not required for the adjacent space.
2. Where the fire code official determines that the volume or configuration of the adjacent interior space is such that dilution or geometry would diminish the effectiveness of carbon monoxide detection devices located in such spaces, detection devices additional to those required by Section 915.2.1 shall be located on the side of communicating openings that is closest to the carbon monoxide source.

915.2.3 Interior spaces with forced-indirect carbon monoxide sources. In all occupancies, interior spaces with a forced-indirect carbon monoxide source shall be provided with carbon monoxide detection in accordance with either of the following:

1. Detection in each space with a forced-indirect carbon monoxide source, located in accordance with Section 915.3.
2. Detection only in the first space served by the main duct leaving the forced-indirect carbon monoxide source, located in accordance with Section 915.3, with an audible and visual alarm signal provided at an approved location.

915.2.4 Dwelling units and sleeping units. Carbon monoxide detection for dwelling units and sleeping units shall comply with Sections 915.2.4.1 and 915.2.4.2.

915.2.4.1 Direct carbon monoxide sources. Where a direct carbon monoxide source is located in a bedroom or sleeping room, or a bathroom attached to either, carbon monoxide detection shall be installed in the bedroom or sleeping room. Where carbon monoxide detection is not installed in bedrooms or sleeping rooms, carbon monoxide detection shall be installed outside of each separate sleeping

area in close proximity to bedrooms or sleeping rooms for either of the following conditions:

1. The dwelling unit or sleeping unit has a communicating opening to an attached, enclosed garage.
2. A direct carbon monoxide source is located in the dwelling unit or sleeping unit outside of bedrooms or sleeping rooms.

915.2.4.2 Forced-indirect carbon monoxide sources. Bedrooms or sleeping rooms in dwelling units or sleeping units that are exposed to a forced-indirect carbon monoxide source shall be provided with carbon monoxide detection in accordance with Section 915.2.4.1 or Section 915.2.3.

915.3 Location of detection devices. Carbon monoxide detection devices shall be installed in accordance with manufacturer's instructions in a location that avoids dead air spaces, turbulent air spaces, fresh air returns, open windows, and obstructions that would inhibit accumulation of carbon monoxide at the detection location. Carbon monoxide detection in air ducts or plenums shall not be permitted as an alternative to required detection locations.

915.4 Permissible detection devices. Carbon monoxide detection shall be provided by a carbon monoxide detection system complying with Section 915.4.2 unless carbon monoxide alarms are permitted by Sections 915.4.1.

915.4.1 Carbon monoxide alarms. Carbon monoxide alarms complying with Sections 915.4.1.1 through 915.4.1.3 shall be permitted in lieu of a carbon monoxide detection system in both of the following:

1. Dwelling units and sleeping units.
2. Locations other than dwelling units or sleeping units, where approved, provided that the manufacturer's instructions do not prohibit installation in locations other than dwelling units or sleeping units and that the alarm signal for any carbon monoxide alarm installed in a normally unoccupied location is annunciated by an audible and visual signal in an approved location.

915.4.1.1 Power source. In buildings with a wired power source, carbon monoxide alarms shall receive their primary power from a permanent connection to building wiring, with no disconnecting means other than for overcurrent protection, and shall be provided with a battery backup. In buildings without a wired power source, carbon monoxide alarms shall be battery powered.

Exception: For existing buildings not previously required to have carbon monoxide alarms permanently connected to a wired power source, existing battery-powered and plug-in with battery backup carbon monoxide alarms shall be permitted to remain in service. When replaced, replacement with battery-powered and plug-in with battery backup carbon monoxide alarms shall be permitted.

915.4.1.2 Listings. Carbon monoxide alarms shall be listed in accordance with UL 2034. Combination carbon monoxide/smoke alarms shall also be listed in accordance with UL 217.

915.4.1.3 Interconnection. Where more than one carbon monoxide alarm is installed, actuation of any alarm shall cause all of the alarms to signal an alarm condition.

915.4.2 Carbon monoxide detection systems. Carbon monoxide detection systems shall be installed in accordance with NFPA 72.

915.4.2.1 Fire alarm system integration. Where a building fire alarm system or combination fire alarm system, as defined in NFPA 72, is installed, carbon monoxide detection shall be provided by connecting carbon monoxide detectors to the fire alarm system. Where a building fire alarm system or a combination fire alarm system is not installed, carbon monoxide detection shall be provided by connecting carbon monoxide detectors to a carbon monoxide detection system complying with NFPA 72.

915.4.2.2 Listings. Carbon monoxide detectors shall be listed in accordance with UL 2075. Combination carbon monoxide/smoke detectors shall be listed in accordance with UL 268 and UL 2075.

915.4.2.3 Alarm notification. For other than Group E Occupancies, activation of a carbon monoxide detector shall initiate alarm notification in accordance with any of the following:

1. An audible and visible alarm notification throughout the building and at the control unit.
2. Where specified in an approved fire safety plan, an audible and visible alarm in the signaling zone where the carbon monoxide has been detected and other signaling zones specified in the fire safety plan, and at the control unit.
3. Where a sounder base is provided for each detector, an audible alarm at the activated carbon monoxide detector and an audible and visible alarm at the control unit.

For Group E Occupancies having an occupant load of 30 or less, alarm notification shall be provided in an on-site location staffed by school personnel or in accordance with the notification requirements for other occupancies. For Group E occupancies having an occupant load of more than 30, an audible and visible alarm shall be provided in an on-site location staffed by school personnel.

915.5 Maintenance. Carbon monoxide alarms and carbon monoxide detection systems shall be maintained in accordance with NFPA 72 and the manufacturer's instructions. Carbon monoxide alarms and carbon monoxide detectors that become inoperable or begin producing end-of-life signals shall be replaced.

(Reason: The final version of the 2024 edition text for Section 915 that was approved fell short of clearly conveying requirements. Furthermore, the adopted code text seems to require a level of protection for some occupancies that is excessive and for other occupancies insufficient. This wording matches the approved changes in the 2027 IFC)

*****Section 1006.2.1 change exception 3 to read as follows**;*

Section 1006.2.1 Egress based on occupant load and common path of egress travel distance.

3. Unoccupied rooftop mechanical rooms and penthouses are not required to comply with the common path of egress travel distance measurement.

(Reason: Add "rooftop" to Exception No. 3 to clarify that only such mechanical rooms located on the roof maybe exempted.)

******Table 1010.2.4; amend Table - Manual Bolts, Automatic Flush Bolts and Constant Latching Bolts on the Inactive Leaf of A pair of Doors; to add Group M and A occupancies as follows:***

Add Group M to Line item #1 in Table 1010.2.4: Group B, F, M or S occupancies with occupant load less than 50. [Remainder unchanged]

Add Group A and M to Line item #2 in Table 1010.2.4: Group A, B, F, M or S occupancies where the building is equipped… [Remainder unchanged]

(Reason: 2024 Code revised this information into Table format. It is historically common in our region to see the 2nd leaf locked, when that leaf is not part of the required egress door clear width, such as in a typical Group M. Table 1010.2.4 line item 2 was expanded to Group A due to it being a similar situation for Group B restaurants. When the required door width capacity is met by a single door, the inactive leaf shall be allowed to be locked since it is not required for egress. This intent of the amendment remains unchanged from previous cycle(s) and has been adjusted to reflect the new format in the 2024 IBC.)

****Section 1020.2 Construction; add new exception 6 as follows:**

6. In unsprinklered 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: Similar concept was previously in UBC. This scenario occurs primarily in existing, non-sprinklered buildings, which under current IBC would be required to have a fire resistance rated corridor. New exception provides a cost-effective solution for single tenant space in lieu of the base IBC requirement to retrofit a fire sprinkler system throughout the building.)

****Section 1030.1.1.1 Spaces under grandstands and bleachers; delete this section.**
(Reason: Unenforceable.)

****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 2018 to mean components that are specifically addressed by TDLR shall be exempt.)

****Section 2702.5; added to read as follows:**

Section 2702.5 Designated Critical Operations Areas (DCOA): In areas within a facility or site requiring continuous operation for the purpose of public safety, emergency management, national security or business continuity, the power systems shall comply with NFPA 70 Article 708.

(Reason: Identifying these areas of critical operations in the building code ensures designers are advised of the requirements outlined in the National Electrical Code which defines specific Critical Operations Power System (COPS) requirements.)

*****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.)

*****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.)

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

****Add Section 2902.1.4 to read as follows:**

2902.1.4 Additional fixtures for food preparation facilities. In addition to the fixtures required in this Chapter, all food service facilities shall be provided with additional fixtures set out in this section.

2902.1.4.1 Hand washing lavatory. At least one hand washing lavatory shall be provided for use by employees that is accessible from food preparation, food dispensing and ware washing areas. Additional hand washing lavatories may be required based on convenience of use by employees.

2902.1.4.2 Service sink. In new or remodeled food service establishments, at least one service sink or one floor sink shall be provided so that it is conveniently located for the cleaning of mops or similar wet floor cleaning tool and for the disposal of mop water and similar liquid waste. The location of the service sink(s) and/or mop sink(s) shall be approved by the **<Jurisdiction's>** health department.

(Reason: Coordinates Health law requirements with code language for consistent regional practice.)

*****Section 3002.1 Hoistway Enclosure Protection required. Add pointer and exception as follows:**

A hoistway for elevators, dumbwaiters and other vertical-access devices shall comply with Sections 712 and 713. Where the hoistway is required to be enclosed, it shall be constructed as a shaft enclosure in accordance with 713. Refer to 712.1.10 for elevators in parking garages.

Exception:

1. Elevators completely located within atriums shall not require hoistway enclosure protection.

(Reason: Provides specific Code recognition for elevators completely within atriums. Amendment needed since specific Code language does not currently exist for elevators within atriums. A pointer has been added to the exception for enclosure requirements in parking garages.)

*****3004.2.1 Enclosure.** ***Add text to read as follows:***

Escalator floor openings shall be enclosed with shaft enclosures complying with Section 712 and 713.

(Reason: Section 3004.2.1 does not acknowledge the multitude of ways in which IBC allows escalators in vertical openings. The addition of 712 to the base requirement sends the users to the escalator opening protection requirements contained in Section 712.)

*****Section 3005.4 Machine rooms, control rooms, machinery spaces and control spaces; Delete existing IBC exceptions and replace with two new NCTCOG exceptions as follows:**

Exceptions:

1. For other than FSAE and occupant evacuation elevators, elevator machine rooms, control rooms, machinery spaces and control spaces completely located within atriums shall not require enclosure protection.

2. For other than FSAE and occupant evacuation elevators, 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 IBC Exceptions to Section 3005.4 and replaces them with new NCTCOG exceptions. The fire rating of these enclosures is permitted to be omitted by the above added NCTCOG exceptions where allowed by other provisions of the code such as in atriums and parking structures. Added "for other than FSAE and occupant evacuation elevators" in recognition of these special elevators requiring maximum code required protection and for consistency with IBC existing

language in the deleted exceptions. See companion change to eliminate fire sprinklers to eliminate the need for shunt trip system.)

*****Section 3005.5: Add a new subsection to Section 3005.5.1 as follows:**

3005.5.1 Fire Protection in Machine rooms, control rooms, machinery spaces and control spaces.

3005.5.1.1 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 903.3.1.1.1 and as prohibited by Section 3005.5.1.1.1.

3005.5.1.1.1 Prohibited locations. Automatic sprinklers shall not be installed in machine rooms, elevator machinery spaces, control rooms, control spaces and elevator hoistways.

3005.5.1.1.2 Automatic Sprinkler system monitoring. The automatic 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.

3005.5.1.2 Water protection. An approved method to prevent water from infiltrating into the hoistway enclosure from the operation of the automatic sprinkler system outside the elevator lobby shall be provided.

3005.5.1.3 Omission of Shunt trip. Means for elevator shutdown in accordance with Section 3005.5 shall not be installed.

(Reason: Firefighter 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, 3007.3, and 3007.4 for Fire Service Access Elevators and Sections 3008.2, 3008.3 and 3008.4 for Occupant Evacuation Elevators except where amended by the NCTOG Amendments.)

****Section 3005; add Section 3005.7 as follows:**

3005.7 Storage. Storage shall not be allowed within the elevator machine room, control room, machinery spaces and or control spaces. Provide approved signage at each entry to the above listed locations stating: "No Storage Allowed".

(Reason: Reinforces the need to maintain space clean and free of combustibles. See companion change to eliminate fire sprinklers therein, Section 3005.5.1.)

Option A
****Section 3006.2, Hoistway opening protection required;** Insert new text in item 5 as follows:

5. The building is a high rise and the elevator hoistway is more than 75 feet (22 860 mm) in height. The height of the hoistway shall be measured from the lowest floor at or above grade to the highest floors served by the hoistway.

Option B
****Section 3006.2, Hoistway opening protection required;** Revise text in item 5 as follows:

5. The building is a high rise and the elevator hoistway is more than ~~75 feet (22 860 mm)~~ 55 feet (16 764 mm) in height. The height of the hoistway shall be measured from the lowest floor at or above grade to the highest floors served by the hoistway.

(Reason: 2024 IBC text does not address hoistways that are greater than 75'-0" in height that are both below grade and above grade but not located above the high-rise classification nor does the IBC address hoistways wholly located above grade such as those that serve sky lobbies.)

****Section 3007.3 and Section 3008.3: Revise text by deleting "enclosed" as follows:**

3007.3 Water Protection. Water from the operation of an automatic sprinkler system outside the elevator ~~enclosed~~ lobby shall be prevented from infiltrating into the hoistway enclosure in accordance with an approved method.

3008.3 Water Protection. Water from the operation of an automatic sprinkler system outside the elevator ~~enclosed~~ lobby shall be prevented from infiltrating into the hoistway enclosure in accordance with an approved method.

(Reason: The lobbies for FSAE and or OEE elevators may be open (i.e., at ground level), or may not require a lobby enclosure on those upper floors with secondary cab entry doors opening into a nonrequired FSAE or OEE lobby. Regardless of whether or not the lobby is enclosed, the objective is to preclude fire sprinkler water from entering into the hoistway serving FSAE and OEE elevators. The deletion of "enclosed" clarifies the original intent of this provision and is consistent with ICC interpretations. Added the word "elevator" to clarify which type of lobbies.)

End

DRAFT