



North Central Texas  
Council of Governments

## Recommended Amendments to the 2021 International Building Code

North Central Texas Council of Governments Region

The following sections, paragraphs, and sentences of the *2021 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 2018 edition of the code and a triple asterisk (\*\*\*) identifies a new or revised amendment with the 2021 code.

### Explanation of Options A and B:

Please note that as there is a wide range in fire fighting 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 fire fighting 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. The former ICC Electrical Code is now Appendix K Chapter 27 of this code but no longer called by that name.)*

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

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

*(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 and 103.1; amend to insert the Department Name**

#### **CODE COMPLIANCE AGENCY [INSERT OFFICIAL BUILDING DEPARTMENT NAME OF JURISDICTION]**

**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 [A] 104.2.1 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 104.10.1; 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 104.2.1, 104.10.1, 110.3.12.1, 1612, and 3114 are all inter-connected related to flood hazard areas, and amendments or deletions should be considered as a whole.)*

**\*\*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<sup>2</sup>).
- ~~2.~~ Fences not over 7 feet (1829 mm) high.
- ~~3.~~ 1. (Remainder Unchanged)
- ~~4.~~ 2. (Remainder Unchanged)
- ~~5.~~ 3. (Remainder Unchanged)
- ~~6.~~ 4. (Remainder Unchanged)
- ~~7.~~ 5. (Remainder Unchanged)
- ~~8.~~ 6. (Remainder Unchanged)
- ~~9.~~ 7. (Remainder Unchanged)
- ~~10.~~ Shade cloth structures constructed for nursery or agricultural purposes, not including service systems.
- ~~11.~~ 8. (Remainder Unchanged)
- ~~12.~~ 9. (Remainder Unchanged)
- ~~13.~~ 10. (Remainder Unchanged)

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

**\*\*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 110.3.5; Lath, gypsum board and gypsum panel product inspection; Delete exception**

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

*(Reason: Lath or gypsum board inspections are not typically performed in this area. Deleting the exception would then require all gypsum panels to be inspected; this issue is resolved by leaving the exception intact.)*

**\*\*Section 202; amend definition of Ambulatory Care Facility as follows:**

**AMBULATORY CARE FACILITY.** Buildings or portions thereof used to provide medical, surgical, psychiatric, nursing or similar care on a less than 24-hour basis to ~~individuals~~ 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 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.)*

**\*\*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 202; amend definition of HIGH-RISE BUILDING to read as follows:**

**Option A**

**\*\*Section 202; {No amendment necessary}**

**Option B**

**\*\*Section 202; amend definition to read as follows:**

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

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

**\*\*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.)*

**\*\*Section 307.1.1; add the following sentence to Exception 4:**

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

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

**\*\*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:**

**[F] 403.3.2 Water supply to required fire pumps.** In buildings that are more than 420 ~~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 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 403.3.2; change to read as follows:**

**Section 404.10 Exit Stairways in an atrium.** Where an atrium contains an ~~interior~~ exit access stairway all the following shall be met:

*[Remainder Unchanged]*

*(Reason: The five provisions within Section 404.10 are applicable to exit access stairways, not interior exit stairways. As printed, this is an error, that if left uncorrected, would change among other core code provisions, how to measure travel distance to an enclosed exit stairway. There is use of the terms "exit stairway in an atrium" vs. "interior exit stairway" vs. "exit access stairway" that will cause confusion as to which provisions are applicable.)*

**\*\*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 423.5.1; change to read as follows:**

**423.5.1 Required occupant capacity.** The required occupant capacity of the storm shelter shall include all of the buildings on the site and shall be the ~~greater of the following:~~



1. ~~The Total occupant load of the classrooms, vocational rooms and offices in the Group E occupancy.~~
2. ~~The occupant load of the largest indoor assembly space that is associated with the Group E occupancy.~~

**Exceptions:**

1. Where a new building is being added on an existing Group E site, and where the new building is not of sufficient size to accommodate the required occupant capacity of the storm shelter for all of the buildings on the site, the storm shelter shall at a minimum accommodate the required occupant capacity for the new building.
2. Where approved by the building official, the required occupant capacity of the shelter shall be permitted to be reduced by the occupant capacity of any existing storm shelters on the site.
3. Where approved by the building official, the actual number of occupants for whom each occupied space, floor or building is designed, although less than those determined by occupant load calculation, shall be permitted to be used in the determination of the required design occupant capacity for the storm shelter.

*Reason: The language in the new exception is parallel to the language in Chapter 10 that gives an AHJ similar authority for fire egress occupant load, clarifying that an AHJ has the authority to reduce the required shelter occupant capacity based on rationale provided by a School District.)*

**\*\*\*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. sprinkling 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 708.4.2; change sentence to read as follows:**

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

**Exceptions:**





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

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

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

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

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

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

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

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

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

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

**\*\*Section 901.6.1; add Section 901.6.1.1 to read as follows:**

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

1. The piping between the Fire Department Connection (FDC) and the standpipe shall be backflushed or inspected by approved camera when foreign material is present or when caps are missing, and also hydrostatically tested for all FDC's on any type of standpipe system. Hydrostatic testing shall also be conducted in accordance with NFPA 25 requirements for the different types of standpipe systems.
2. For any manual (dry or wet) standpipe system not having an automatic water supply capable of flowing water through the standpipe, the tester shall connect hose from a fire hydrant or portable pumping system (as approved by the fire code official) to each FDC, and flow water through the standpipe system to the roof outlet to verify that each inlet connection functions properly. Confirm that there are no open hose valves prior to introducing water into a dry standpipe. There is no required



North Central Texas  
Council of Governments

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 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 for telecommunications buildings:**

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. 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 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 3005.4, such that passive fire barriers for these areas are maintained. The exception deletion is due to the fact that such telecom areas pose an undue fire risk to the structural integrity of the building.)*

**\*\*\*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 (>16% 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 (>16% 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 and 903.2.9.5; delete Exception to 903.2.9.4 and add Section 903.2.9.5 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.

*(Reason: Fire departments are unable to regularly inspect the interior of 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.)*

**\*\*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 1510 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.

**—Exceptions:**

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



North Central Texas  
Council of Governments

**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 1510 of the *International Building Code*, located ~~55 35 feet (46 764 10 668 mm)~~ or more above the lowest level of fire department vehicle access, measured to the finished floor.

**Exceptions:**

- ~~2. 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 in compliance with Section 406.5 of the *International Building Code* where all of the following conditions apply:

- a. The structure is freestanding.
- b. The structure does not contain any mixed uses, accessory uses, storage rooms, electrical rooms, elevators or spaces used or occupied for anything other than motor vehicle parking.
- c. The structure does not exceed 3 stories.
- d. An approved fire apparatus access road is provided around the entire structure.

*(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. Any room where the application of water, or flame and water, constitutes a serious life or fire hazard.
2. Any room or space where sprinklers are considered undesirable because of the nature of the contents, when approved by the fire code official.
3. Generator and transformer rooms, under the direct control of a public utility, separated from the



North Central Texas  
Council of Governments

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. ~~In rooms or areas that are of noncombustible construction with wholly noncombustible contents.~~
5. ~~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.
6. {Delete.}

*(Reason: Gives clarification. 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.)*

**\*\*\*Section 903.3.1.2; change to read as follows:**

**903.3.1.2 NFPA 13R sprinkler systems.** Automatic sprinkler systems in Group R occupancies shall be permitted to be installed throughout in accordance with NFPA 13R where the Group R occupancy meets all of the following conditions:

1. Four stories or less above grade plane.
2. The floor level of the highest story is ~~30~~ 35 feet (9144 10668 mm) or less above the lowest level of fire department vehicle access.
3. The floor level of the lowest story is ~~30~~ 35 feet (9144 10668 mm) or less below the lowest level of fire department vehicle access.

{No change to remainder of section.}

*(Reason: The change to the 2021 IFC over-reached to limit 13R systems to 30 ft. high at topmost floor level, which basically results in limiting 13R systems to 3 story buildings in reality. This change to 35 ft. would still allow 13R systems in 4 story apartment buildings, as has been allowed historically and as intended by 13R's scope.)*

**\*\*\*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:~~  
{Delete the rest of this section.}

*(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.



North Central Texas  
Council of Governments

- 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:**

**[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, preaction, 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 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. 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.)*

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



North Central Texas  
Council of Governments

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 for the region.)*

**\*\*Section 903.4; 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. 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.)*

**\*\*Section 903.4.2; 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 905.2; change to read as follows:**

**905.2 Installation Standard.** Standpipe systems shall be installed in accordance with this section and NFPA 14. 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.)*

**\*\*\*Section 905.3; add Section 905.3.9 and exception to read as follows:**

**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 (60960 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, semi-automatic dry, and manual dry standpipes are allowed as provided for in NFPA 14 where approved by the fire code official.
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 in larger structures.)*

**\*\*Section 905.4; change Items 1, 3, and 5, and add Item 7 to read as follows:**

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

**Exception:** {No change.}



North Central Texas  
Council of Governments

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 interior exit stairway hose connection by a {remainder of text unchanged}
4. {No change.}
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 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.)*

**\*\*\*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. This is a long-standing regional requirement.)*

**\*\*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. 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.)*

**\*\*\*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.~~





North Central Texas  
Council of Governments

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

**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.)*

**\*\*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~~ 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.

**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.)*

**\*\*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:**



North Central Texas  
Council of Governments

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; change to read as follows:**

**907.2.10 Group S.** 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; add Section 907.4.2.7 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; add Section 907.6.1.1 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.**



*(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. This was moved from 907.6.5.3 in the 2012 IFC and reworded to match new code language and sections (legacy language).*

*(Reason: Deleted Previous code amendment Section 909.22, For removal because it is already in the code in Sections 909.20.5, 909.20.6, 909.20.6.1, 909.20.6.2, and 909.20.6.3.)*

**\*\*Section 910.2; change read and change Exception 2 and 3 to read as follows:**

**910.2 Where required.** Smoke and heat vents or a mechanical smoke removal system shall be installed as required by Sections 910.2.1, 910.2.2, and 910.3.2.

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 ~~not~~ be required in areas of buildings equipped with control mode special application sprinklers with a response time index of  $50(m^*S)^{1/2}$  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.)*

**\*\*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<sup>2</sup>) 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.)*



North Central Texas  
Council of Governments

**\*\*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 m<sup>2</sup> per 0.4719 m<sup>3</sup>/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; add Section 912.2.3 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 Section 913.2.1.1 and exception to read as follows:**

**913.2.1.1 Fire Pump Room Access.** 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 IFC 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 IFC 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.)*

**\*\*\*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.)*

**\*\*Section 1009.8 Two Way Communication; add the following Exception 7:**

[Text Remains]



North Central Texas  
Council of Governments

**Exceptions:**

7. Buildings regulated under State Law and built in accordance with State registered plans, including variances or waivers granted by the State, shall be deemed to be in compliance with the requirements of Section 1009 and Chapter 11.

*(Reason: To accommodate buildings regulated under Texas State Law and to be consistent with amendments in Chapter 11.)*

**\*\*Section 1010.2.5 Bolt Locks; amend exceptions 3 and 4 as follows:**

**Exceptions:**

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

4. *Where a pair of doors serves a Group A, B, F, M or S occupancy (remainder unchanged)*

*(Reason: It is 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. Exception No. 4 was expanded to Group A due to it being a similar situation for Group A restaurants.)*

**\*\*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 1809.5.1 Frost Protection at required exits; delete this section**

*(Reason: frost protection at exit doors is not needed in our climate zone )*

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



North Central Texas  
Council of Governments

**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 exceptions as follows:**

**Exceptions:**

1. Elevators completely located within atriums shall not require hoistway enclosure protection.
2. Elevators in open or enclosed parking garages that serve only the parking garage, shall not require hoistway enclosure protection.





North Central Texas  
Council of Governments

*(Reason: Provides specific Code recognition that elevators within atriums and within parking garages do not require hoistway enclosure protection. Amendment needed since specific Code language does not currently exist.)*

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

**Exceptions:**

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

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

**\*\*\*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 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.

**3005.5.1.2 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.)*

**\*\*Section 3005.8; add Section 3005.8 as follows:**

**3005.8 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."



North Central Texas  
Council of Governments

*(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 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 as follows:

5. The building is a high rise and the elevator hoistway is more than ~~75 foot (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: 2018 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 ~~enclosed~~ lobby shall be prevent 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 ~~enclosed~~ lobby shall be prevent 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.)*

End



North Central Texas  
Council of Governments

**Recommended Amendments to the  
2021 International Residential Code**  
North Central Texas Council of Governments Region

The following sections, paragraphs, and sentences of the *2021 International Residential Code* are hereby amended as follows: Standard type is text from the IRC. Underlined type is text inserted. ~~Lined through type is deleted text from IRC.~~ A double asterisk at the beginning of a section identifies an amendment carried over from the 2018 edition of the code and a triple asterisk identifies a new or revised amendment with the 2021 code.

In 2009, **the State Legislature enacted SB 1410 prohibiting cities from enacting fire sprinkler mandates in residential dwellings.** However, jurisdictions with ordinances that required sprinklers for residential dwellings prior to and enforced before January 1, 2009, may remain in place. Reference; Section R313 Automatic Fire Sprinkler Systems.

The energy provisions in IRC Chapter 11 is deleted in its entirety.  
**Reference the 2021 IECC for energy code provisions and recommended amendments.**

**\*\*Section R102.4; change to read as follows:**

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

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

**\*\* Section R103 and R103.1 amend to insert the Department Name**

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

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

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

**\*\*Section R104.10.1 Flood Hazard areas; delete this section.**

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

**\*\*Section R105.3.1.1& R106.1.4; delete these sections.**

*(Reason: Floodplain provisions are addressed locally.)*

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

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

**\*\*\*Section R202; change definition of "Townhouse Unit" to read as follows:**



**North Central Texas  
Council of Governments**

**TOWNHOUSE UNIT.** A single-family dwelling unit separated by property lines in a townhouse that extends from foundation to roof and that has a yard or public way on not less than two sides.

(Reason: To distinguish Townhouse Units within a Townhouse building on separate lots.)

**\*\*\*Table R301.2 (1); fill in as follows:**

GROUND SNOW LOAD	WIND DESIGN				SEISMIC DESIGN CATEGORY <sup>f</sup>	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMPE <sup>e</sup>	ICE BARRIER UNDER-LAYMENT <sup>h</sup>	FLOOD HAZARDS <sup>g</sup>	AIR FREEZING INDEX <sup>i</sup>	MEAN ANNUAL TEMP <sup>j</sup>
	SPEED <sup>d</sup> (MPH)	Topographic Effects <sup>k</sup>	Special Wind Region <sup>l</sup>	Windborne Debris Zone <sup>m</sup>		Weathering <sup>a</sup>	Frost Line Depth <sup>b</sup>	Termite <sup>c</sup>					
5 lb/ft	115 (3 sec-gust)/ 76 fastest mile	No	No	No	A	Moderate	6"	Very Heavy	22 <sup>o</sup> F	No	Local Code	150	64.9 <sup>o</sup> F

**Delete remainder of table Manual J Design Criteria and footnote N**

(Reason: To promote regional uniformity. Manual J is utilized by third party and not part of performed plan reviews. This is reference table only, not needed.)

**\*\*Section R302.1; add exception #6 to read as follows:**

**Exceptions:** {previous exceptions unchanged}

6. Open non-combustible carport structures may be constructed when also approved within adopted ordinances.

(Reason: Refers to other ordinances, such as zoning ordinances.)

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

**Exceptions:**

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

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

**\*\*\*Section R302.2.6; delete exception #6:**

**Exceptions:** {previous exceptions unchanged}

- ~~6. Townhouse units protected by a fire sprinkler system complying with Section P2904 or NFPA 13D.~~

( Reason: To remain consistent with separated townhouse units and property lines.)



North Central Texas  
Council of Governments

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

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

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

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

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

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

**\*\*\*R307.3 Blocking.** Required at one toilet at grade level. Blocking per Sec. R307.4 and Figure 307.4, shall be installed at rear wall and one wall adjacent to toilet at the lowest living level where a toilet is provided.

**\*\*\*R307.4 Blocking.** Blocking may be 1/2" plywood or equivalent or 2 x solid wood blocking flush with wall.

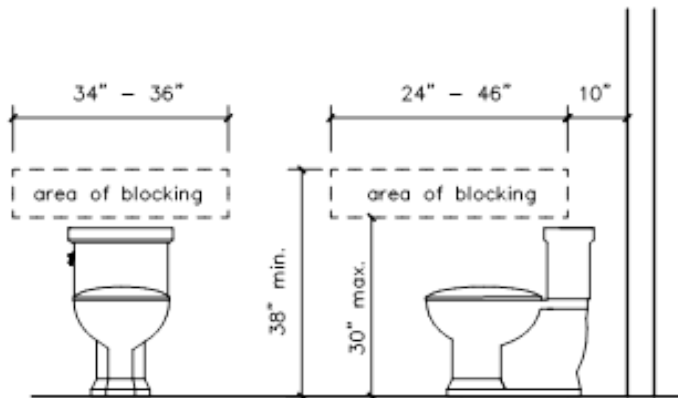


Figure 307.4

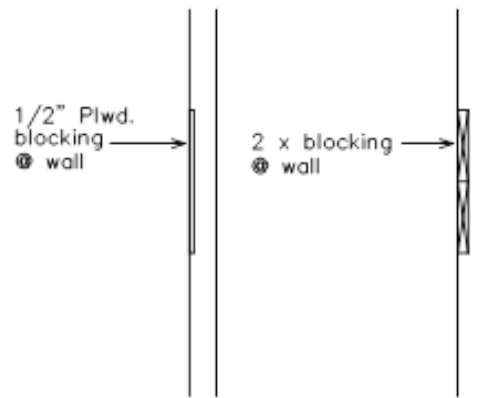


Figure 307.4

*(Reason: Blocking at initial construction allows for ease of use for future grab bar installation if desired for homeowners. Ties into Dallas Builders Association of Universal Design Elements concepts for CAPS (Certified Aging in Place Specialists) professionals.)*

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

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



North Central Texas  
Council of Governments

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

**Exception:**

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

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

**\*\*Section R322 Flood Resistant Construction; deleted section.**

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

**\*\*\*Section 327.1.1; add to read as follows:**

**Section 327.1.1 Adjacency to Structural Foundation.** Depth of the swimming pool and spa shall maintain a ratio of 1:1 from the nearest building foundation or footing of a retaining wall.

**Exception:**

A sealed engineered design drawing of the proposed new structure shall be submitted for approval.

*(Reason: To clarify specific distances for pools and spas.)*

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

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

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

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

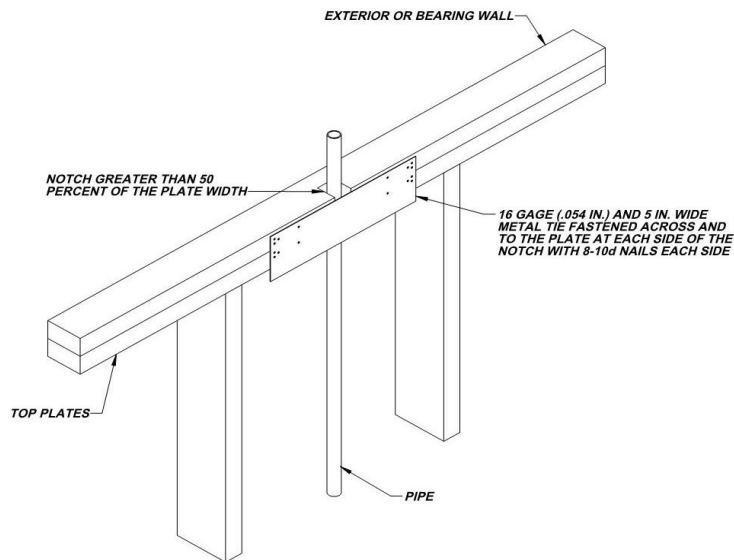
**\*\*Section R602.6.1; amend the following:**

**R602.6.1 Drilling and notching of top plate.** When piping or ductwork is placed in or partly in an exterior wall or interior load-bearing wall, necessitating cutting, drilling or notching of the top plate by more than 50 percent of its width, a galvanized metal tie not less than 0.054 inch thick (1.37 mm) (16 Ga) and ~~4 1/2 inches (38 mm)~~ 5 inches (127 mm) wide shall be fastened across and to the plate at each side of the opening with not less than eight 10d (0.148 inch diameter) having a minimum length of 1 1/2 inches (38 mm) at each side or equivalent. Fasteners will be offset to prevent splitting of the top plate material. The metal tie must extend a minimum of 6 inches past the opening. See figure R602.6.1. *{remainder unchanged}*

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

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





(Amendment  
forward to

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

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

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

1. When studs are 16 in (407 mm) o.c., stud ties shall be spaced no further apart than 24 in (737 mm) vertically starting approximately 12 in (381 mm) from the foundation; or
2. When studs are 24 in (610 mm) o.c., stud ties shall be spaced no further apart than 16 in (483 mm) vertically starting approximately 8 in (254 mm) from the foundation.

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

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

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

**Exceptions:**

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

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



North Central Texas  
Council of Governments

**\*\* Chapter 11 [RE] – Energy Efficiency is deleted in its entirety; Reference the 2021 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 2021 International Energy Conservation Code should be referenced for residential energy provisions. This approach simply minimizes the number of amendments to the IRC.)*

**\*\*Section M1305.1.2; change to read as follows:**

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

1. A permanent stair.
2. A pull down stair with a minimum 300 lb (136 kg) capacity.
3. An access door from an upper floor level.

Exceptions: [remaining text unchanged]

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

**\*\*Section M1411.3; change to read as follows:**

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

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

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

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

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

*(Reason: Reflects standard practice in this area.)*

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

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

*(Reason: Reflects standard practice in this area.)*

**\*\*M1503.6 Makeup Air Required; amend and add exception as follows:**



North Central Texas  
Council of Governments

**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<sup>3</sup>/s) shall be mechanically or passively provided with makeup air at a rate approximately equal to the difference between exhaust air rate and 400 cubic feet per minute. Such makeup air systems shall be equipped with not fewer than one damper complying with Section M1503.6.2.

**Exception:** Makeup air is not required for exhaust systems installed for the exclusive purpose of space cooling and intended to be operated only when windows or other air inlets are open. Where all appliances in the house are of sealed combustion, power-vent, unvented, or electric, the exhaust hood system shall be permitted to exhaust up to 600 cubic feet per minute (0.28 m<sup>3</sup>/s) without providing makeup air. Exhaust hood systems capable of exhausting in excess of 600 cubic feet per minute (0.28 m<sup>3</sup>/s) shall be provided with a makeup air at a rate approximately to the difference between the exhaust air rate and 600 cubic feet per minute.

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

**\*\*Section M2005.2; change to read as follows:**

**M2005.2 Prohibited locations.** Fuel-fired water heaters shall not be installed in a room used as a storage closet. Water heaters located in a bedroom or bathroom shall be installed in a sealed enclosure so that *combustion air* will not be taken from the living space. Access to such enclosure may be from the bedroom or bathroom when through a solid door, weather-stripped in accordance with the exterior door air leakage requirements of the *International Energy Conservation Code* and equipped with an *approved* self-closing device. Installation of direct-vent water heaters within an enclosure is not required.

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

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

*(Reason: This provision does not reflect standard practice in this area.)*

**\*\*Section G2415.2 (404.2) CSST; add a second paragraph to read as follows:**

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

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

*(Reason: To protect homeowners and plumbers.)*

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

**G2415.12 (404.12) Minimum burial depth.** Underground *piping systems* shall be installed a minimum depth of ~~42 inches (305 mm)~~ 18 inches (457 mm) below grade, ~~except as provided for in Section G2415.12.1.~~

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

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

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



North Central Texas  
Council of Governments

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

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

**\*\*Section G2417.4; change to read as follows:**

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

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

**\*\*Section G2417.4.1; change to read as follows:**

**G2417.4.1 (406.4.1) Test pressure.** The test pressure to be used shall be no less than 3 psig (20 kPa gauge), or at the discretion of the Code Official, the piping and valves may be tested at a pressure of at least six (6) inches (152 mm) of mercury, measured with a manometer or slope gauge, irrespective of design pressure. Where the test pressure exceeds 125 psig (862 kPa gauge), the test pressure shall not exceed a value that produces a hoop stress in the piping greater than 50 percent of the specified minimum yield strength of the pipe. For tests requiring a pressure of 3 psig, diaphragm gauges shall utilize a dial with a minimum diameter of three and one half inches (3 ½”), a set hand, 1/10 pound incrementation and pressure range not to exceed 6 psi for tests requiring a pressure of 3 psig. For tests requiring a pressure of 10 psig, diaphragm gauges shall utilize a dial with a minimum diameter of three and one-half inches (3 ½”), a set hand, a minimum of 2/10 pound incrementation and a pressure range not to exceed 20 psi. For welded piping, and for piping carrying gas at pressures in excess of fourteen (14) inches water column pressure (3.48 kPa) (1/2 psi) and less than 200 inches of water column pressure (52.2 kPa) (7.5 psi), the test pressure shall not be less than ten (10) pounds per square inch (69.6 kPa). For piping carrying gas at a pressure that exceeds 200 inches of water column (52.2 kPa) (7.5 psi), the test pressure shall be not less than one and one-half times the proposed maximum working pressure.

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

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

**\*\*Section G2417.4.2; change to read as follows:**

**G2417.4.2 (406.4.2) Test duration.** The test duration shall be held for a length of time satisfactory to the *Building Official*, but in no case for ~~be not~~ less than 40-fifteen (15) minutes. For welded *pipng*, and for *pipng* 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.)*



North Central Texas  
Council of Governments

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

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

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

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

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

*(Reason: Reflects regional practice and provides an additional measure of convenience.)*

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

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

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

*(Reason: To require adequate access to regulators.)*

**\*\*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.)*

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

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

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

*(Reason: Gives code official discretion.)*

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

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



North Central Texas  
Council of Governments

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

**\*\*Section P2603; add to read as follows:**

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

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

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

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

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

**\*\*\*Section P2604; add to read as follows:**

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

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

**\*\* Section P2801; change to read as follows:**

**P2801.6 Required pan.**

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

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

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

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





North Central Texas  
Council of Governments

**\*\*Section P2801.6.1; change to read as follows:**

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

*(Reason: Regionally accepted practice.)*

**\*\* Section P2804.6.1; change to read as follows:**

**Section P2804.6.1 Requirements for discharge piping.** The discharge piping serving a pressure relief valve, temperature relief valve or combination thereof shall:

1. Not be directly connected to the drainage system.
2. Discharge through an air gap ~~located in the same room as the water heater.~~
3. Not be smaller than the diameter of the outlet of the valve served and shall discharge full size to the air gap.
4. Serve a single relief device and shall not connect to piping serving any other relief device or equipment.

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

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

[remainder unchanged]

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

**\*\*Section P2902.5.3; change to read as follows:**

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

*(Reason: To provide clarity.)*

**\*\*Section P3003.9; change to read as follows:**

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



North Central Texas  
Council of Governments

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

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

*(Reason: to keep the “process of joining PVC pipe”.)*

**\*\*Section P3111 Combination waste and vent systems; delete this section in its entirety.**

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

**\*\*Section P3112.2 Vent Connection; delete and replace with the following:**

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

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

**END**



North Central Texas  
Council of Governments

**Recommended Amendments to the 2021  
International Existing Building Code**  
North Central Texas Council of Governments Region

The following sections, paragraphs, and sentences of the 2021 *International Existing Building Code* are hereby amended as follows: Standard type is text from the IEBC. Underlined type is text inserted. ~~Lined through type is deleted text from IEBC.~~ A double asterisk (\*\*) at the beginning of a section identifies an amendment carried over from the 2018 edition of the code and a triple asterisk (\*\*\*) identifies a new or revised amendment with the 2021 code.

**\*\*Section 102.4; change to read as follows:**

**[A] 102.4 Referenced codes and standards.** The codes, when specifically adopted, and standards referenced in this code shall be considered part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections 102.4.1 and 102.4.2. {No change to rest of section.}

*(Reason: To not inadvertently adopt other codes (i.e., Wildland Urban Interface Code etc....) by reference.)*

**\*\*\*Section 110.2; delete number 11 as follows:**

~~11. Where an automatic sprinkler system is provided, and whether an automatic sprinkler system is required.~~

*(Reason: This has not been historically required on C.O.'s creating inconsistency and is not easily implemented to modify C.O.'s, and is short sided in only identifying one fire protection system. Further, the svstem must be maintained whether voluntarilv installed or not.)*

**\*\*\*Section 202; amend definition of Existing Building as follows:**

**Existing Building** - A building, structure, or space with an approved final inspection issued under a code edition which is at least 2 published code editions preceding the currently adopted building code; a building, structure or space that is undergoing a change of occupancy or use. ~~erected prior to the date of adoption of the appropriate code, or one for which a legal building permit has been issued.~~

**\*\*\*Section 202; amend definition of Existing Structure as follows:**

**Existing Structure**- A building, structure, or space, with an approved final inspection issued under a code edition which is at least 2 published code editions preceding the currently adopted building code; a building, structure or space that is undergoing a change of occupancy or use. ~~erected prior to the date of adoption of the appropriate code, or one for which a legal building permit has been issued.~~

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

**\*\*\*Section 306.1; add exceptions to read as follows:**

**Exceptions:**

- 1. 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.**
- 2. If the cost of the project is less than \$50K, it must comply with ICC A117.1, or it shall be reviewed and inspected to the Texas Accessibility Standards by a Registered Accessibility Specialist.**

*(Reason: To coordinate with the IBC and State Law for accessibility.)*



**\*\*\*Section 306.2; add exception to read as follows:**

Exception: Projects subject to the Texas Accessibility Standards as adopted by the Texas Department of Licensing and Regulation are exempt from this section. Projects with a valuation of less than \$50,000.00 (which are subject to the Texas Accessibility Standards) may be accepted as equivalent to this section where reviewed and inspected to the Texas Accessibility Standards by a Texas Department of Licensing and Regulation Registered Accessibility Specialist when a plan review report and a compliant inspection report are provided to the building code official.

*(Reason: To coordinate with the IBC and State Law for accessibility.)*

**\*\*\*Section 306.5.1; add to read as follows:**

**306.5.1 Complete change of occupancy.** Where an entire building undergoes a change of occupancy, it shall comply with Section 305.4.1 and shall have all of the following accessible features:

1. Not fewer than one accessible building entrance.
2. Not fewer than one accessible route from an accessible building entrance to primary function areas.
3. Signage complying with Section 1111 of the International Building Code.
4. Accessible parking, where parking is being provided.
5. Not fewer than one accessible passenger loading zone, where loading zones are provided.
6. Not fewer than one accessible route connecting accessible parking and accessible passenger loading zones to an accessible entrance.
7. At least one accessible family or assisted use toilet room shall be provided in accordance with Chapter 11 of the International Building Code.

Where it is technically infeasible to comply with the new construction standards for any of these requirements for a change of group or occupancy, Items 1 through 6 shall conform to the requirements to the maximum extent technically feasible.

Exception: The accessible features listed in Items 1 through 6 are not required for an accessible route to Type B units.

*(Reason: Maintains legacy language from the 2018 IEBC to identify accessibility criteria for changes of occupancy, and adds the required accessible toilet for disabled occupants, as per previous 2018 IEBC amendments.)*

**\*\*Section 401.3 Flood Hazard Areas; delete this section.**

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

**\*\*Section 405.2.6 Flood Hazard Areas; delete this section.**

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

**\*\*Section 406.1; add a code reference to read as follows:**

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

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

**\*\*Section 502.3 Flood Hazard Areas; delete this section.**

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



North Central Texas  
Council of Governments

**\*\*\*Section 503.2 Flood hazard areas; delete this section.**

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

**\*\*\*Section 503.16; add exception to read as follows:**

**Exception:** Compliance with the Texas Accessibility Standards is not considered equivalent compliance for the purpose of enforcement of this code section.

*(Reason: TAS does not address this criteria in their evaluation, and it is justifiably required for alterations in existing buildings.)*

**\*\*Section 504.1.2; change to read as follows:**

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

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

**\*\*Section 504.1.3; delete this section:**

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

*(Reason: To generally require a higher level of egress protection and consistent with regional practice.)*

**\*\*Section 507.3 Flood Hazard Areas; delete this section.**

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

**\*\*Section 701.3 Flood Hazard Areas; delete this section.**

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

**\*\*\*Section 702.4; add exception 2 to read as follows:**

2. Operable windows with openings that are provided with window fall prevention devices that comply with ASTM F2090.

*(Reason: Maintains legacy language of the 2018 IFC to identify fall prevention devices as acceptable alternate/exception.)*

**\*\*Section 702.7; add a code reference to read as follows:**

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

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

**\*\*Section 802.5.1; change to read as follows:**

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

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

**\*\*Section 803.1; add sentence to read as follows:**

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

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

**\*\*Section 803.2.6; change exception to read as follows:**

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

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

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

**\*\*Section 803.3; change section to read as follows:**

**803.3 Standpipes.** Refer to Section 1103.6 of the Fire Code for retroactive standpipe requirements.  
{Delete rest of Section 803.3.}

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

**\*\*Section 804.2; delete Exception #1 as follows:**

**Exceptions:** ~~1. Where the work area and the means of egress serving it complies with NFPA101.~~  
~~2. [Remain unchanged]~~

*(Reason: NFPA 101 is not a commonly adopted code in the region and enforcement would be problematic, especially due to contradictions with the requirements of the IBC.)*





**\*\*Section 804.4.1.2; change to read as follows:**

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

*(Reason: Higher level of safety by not allowing new fire escapes and consistent with regional practice.)*

**\*\*Section 804.4.1.2.1; change to read as follows:**

**804.4.1.2.1 Fire Escape access and details - ...**

1. [Remain unchanged]
2. Access to a ~~new~~ fire escape shall be through a door...
3. ~~Newly constructed fire escapes shall be permitted only where exterior stairways cannot be utilized because of lot lines limiting the stairway size or because of the sidewalks, alleys, or roads at grade level.~~
4. [Remain unchanged]
5. In all buildings of Group E occupancy up to and including the 12<sup>th</sup> grade, buildings of Group I occupancy, ~~rooming~~ boarding houses, and childcare centers, ladders of any type are prohibited on fire escapes used as a required means of egress.

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

**\*\*Section 804.6.2 Transoms; add language to read as follows:**

**804.6.2 Transoms.** In all buildings of Group B, E, I-1, I-2, R-1 and R-2 occupancies, ....[Remainder unchanged]

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

**\*\*Section 904.1; add sentence to read as follows:**

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

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

**\*\*Section 904.1.1; change to read as follows:**

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

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



**\*\*\*Section 1011.2.1: change to read as follows:**

**1011.2.1 Fire sprinkler system.** Where a change in occupancy classification occurs or where there is a *change of occupancy* within a space where there is a different fire protection system threshold requirement in Chapter 9 of the *International Building Code* that requires an automatic fire sprinkler system to be provided based on the new occupancy in accordance with Chapter 9 of the *International Building Code*. The installation of the automatic sprinkler system shall be required within the area of the *change of occupancy* and areas of the building not separated horizontally and vertically from the *change of occupancy* by one of the following:

1. ~~Nonrated permanent partition and horizontal assemblies.~~
2. ~~Fire partition.~~
3. ~~Smoke partition.~~
4. ~~Smoke barrier.~~
5. Fire barrier, as required by Section 707 of the IBC.
6. Fire wall, as required by Section 706 of the IBC.

**Exceptions:** [Remain unchanged.]

*(Reason: Maintains legacy language requiring at least fire barrier separation between a newly sprinklered more hazardous 'change of occupancy' from non-sprinklered existing occupancies, as is required for fire area separation by the IBC.)*

**\*\*\*Section 1102.2.1; add to read as follows:**

**1102.2.1 Fire Separations.** Where fire separations are utilized to allow additions without exceeding the allowable area provisions of Chapter 5 of the IBC for either the existing building or the new addition, the decreased clear space where the two buildings adjoin shall be accounted for in such calculation relative to the allowable frontage increase.

*(Reason: This issue of evaluating allowable area for additions is commonly miscalculated due to the above issue. This amendment provides clarification but is not more stringent than what is currently required by the Building Code as to allowable area calculations.)*

**\*\*Section 1103.3 Flood Hazard Areas; delete this section.**

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

**\*\*Section 1201.4 Flood Hazard Areas; delete this section.**

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

**\*\*Section 1301.3.2; change to read as follows:**

**1301.3.2 Compliance with other codes.** Buildings that are evaluated in accordance with this section shall comply with the International Fire Code. ~~and International Property Maintenance Code.~~

*(Reason: NCTCOG does not currently recommend, nor review the IPMC for recommended amendments at this time.)*

**\*\*Section 1301.3.3 Compliance with Flood Hazard Provisions; delete this section.**

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



North Central Texas  
Council of Governments

**\*\*Section 1402.6 Flood Hazard Areas; delete this section.**

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

**\*\*\*Section 1509; delete Section 1509.1 through 1509.5 and add Section 1509.1 to read as follows:**

**1509.1 When required.** An approved water supply for fire protection, either temporary or permanent, shall be made available as soon as combustible material arrives on the site. The water supply design and the timing of the water supply installation relative to building construction shall comply with the adopted Fire Code.

*(Reason: Maintains legacy language for the water supply and ensures adequate water supply as required by the Fire Code for construction that is already well-established. The changes in the published 2021 IEBC drastically reduce the required water supply of the Fire Code without adequate or reasonable justification.)*

**END**



North Central Texas  
Council of Governments

**Recommended Amendments to the  
2021 International Energy Conservation Code  
And the energy provisions of the  
2021 International Residential Code**  
North Central Texas Council of Governments Region  
(Climate Zone 2 & 3 of the IECC)

The following sections, paragraphs, and sentences of the *2021 International Energy Conservation Code* (IECC) are hereby amended as follows: Standard type is text from the IECC. Underlined type is text inserted. ~~Lined through type is deleted text from IECC.~~ A double (\*\*) asterisk at the beginning of a section identifies an amendment carried over from the 2018 edition of the code and a triple (\*\*\*) asterisk identifies a new or revised amendment with the 2021 code. Section numbers in parenthesis represent the corresponding numbers of the energy provisions of the *2021 International Residential Code* for parallel amendments.

## 2021 IECC (Energy Provisions of the 2021 IRC)

**\*\*\*Section 105.2 Required Inspections; Changed numbering and to read as follows:**

***R105.2.1 Footing and foundation inspection.***

Inspections associated with footings and foundations shall verify compliance with the code as to R-value, location, thickness, depth of burial and protection of insulation as required by the code and approved plans and specifications.

***R105.2.2 Framing and Air Barrier rough-in inspection.***

Inspections at framing and rough-in shall be made before application of interior finish insulation and shall verify compliance with the code as to: ~~types of insulation and corresponding R-values and their correct location and proper installation; fenestration properties such as U-factor and SHGC and proper installation;~~ air leakage controls as required by the code; and approved plans and specifications.

***R105.2.3 Insulation and Fenestration rough-in inspection.***

Inspections at framing and rough-in shall be made before application of interior finish and shall verify compliance with the code as to: types of insulation and corresponding R-values and their correct location and proper installation; fenestration properties such as U-factor and SHGC and proper installation.

***R105.2.34 Plumbing rough-in inspection.***

Inspections at plumbing rough-in shall verify compliance as required by the code and approved plans and specifications as to types of insulation and corresponding R-values and protection and required controls.

***R105.2.45 Mechanical rough-in inspection.***

Inspections at mechanical rough-in shall verify compliance as required by the code and approved plans and specifications as to installed HVAC equipment type and size, required controls, system insulation and corresponding R-value, system air leakage control, programmable thermostats, dampers, whole-house ventilation, and minimum fan efficiency.

**Exception:** Systems serving multiple dwelling units shall be inspected in accordance with Section C105.2.4.

***R105.2.56 Final inspection.***



North Central Texas  
Council of Governments

The building shall have a final inspection and shall not be occupied until approved. The final inspection shall include verification of the installation of all required building systems, equipment and controls and their proper operation and the required number of high-efficacy lamps and fixtures.

**\*\*Section C102/R102 General; add Section C102.1.2 and R102.1.2 (N1101.4.1) to read as follows:**

**C102.1.2 Alternative compliance.** A building certified by a national, state, or local accredited energy efficiency program and determined by the Energy Systems Laboratory to be in compliance with the energy efficiency requirements of this section may, at the option of the Code Official, be considered in compliance. The United States Environmental Protection Agency's Energy Star Program certification of energy code equivalency shall be considered in compliance.

**R102.1.2 (N1101.4.1) Alternative compliance.** A building certified by a national, state, or local accredited energy efficiency program and determined by the Energy Systems Laboratory to be in compliance with the energy efficiency requirements of this section may, at the option of the Code Official, be considered in compliance. The United States Environmental Protection Agency's Energy Star Program certification of energy code equivalency shall be considered in compliance. Regardless of the program or the path to compliance, each 1- and 2-family dwelling shall be tested for air and duct leakage as prescribed in Section R402.4.1.2 (N1102.4.1.2) and R403.3.3 (N1103.3.3) respectively.

*(Reason: This amendment is added to allow alternative compliance in accordance with Texas HB 1365, 78<sup>th</sup> Legislature. Codified in Chapter 388 Texas Building Energy Performance Standards: §388.003(i). The last sentence to Section R102.1.2 (N1101.4.1) was added to ensure that every house is tested in accordance with the mandatory provisions of the code.)*

**Section R202 (N1101.6) Definitions; add the following definition:**

**\*\*PROJECTION FACTOR.** The ratio of the horizontal depth of the overhang, eave or permanently attached shading device, divided by the distance measured vertically from the bottom of the fenestration glazing to the underside of the overhang, eave or permanently attached shading device.

*(Reason: The amendment to Section 402.3.2 (N1102.3.2) Glazed fenestration SHGC was proposed by the TAB. ESL determined the proposal to be not less restrictive than the 2015 IECC. This added definition is necessary as part of that amendment. The amendment will provide additional options for SHGC selection.)*

**Section R202 (N1101.6) Definitions; add the following definition:**

**\*\*DYNAMIC GLAZING.** Any fenestration product that has the fully reversible ability to change its performance properties, including U-factor, solar heat gain coefficient (SHGC), or visible transmittance (VT).

*(Reason: This term is referenced in Section R402.3.2. This definition of DYNAMIC GLAZING is also found in the Commercial provisions of the code.)*

**\*\*\*Table 402.1.2 Maximum Assembly/Climate Zone items: amend table as follows.**

Climate Zone	Fenestration U-Factor <sup>f</sup>	Ceiling U-Factor
2	.40	0.26-0.29



North Central Texas  
Council of Governments

3	<b>0.30 0.32</b>	<b>0.26-0.29</b>
---	------------------	------------------

\*\*\*Table 402.1.3 Insulation/Climate Zone items: amend table as follows.

Climate Zone	Fenestration U-Factor <sup>b,i</sup>	Ceiling R-Value	Wood Frame Wall R-Value	Slab R-Value & Depth
2	.40	49-42	13 or 0 + 10	0
3	<b>0.30 0.32</b>	49-42	<b>19 or 13+53ci, 0+15</b>	<b>10ci, 2-ft 0</b>

(Reason: Amended table to meet current building techniques, market conditions and product availability. Amended to avoid conflict between North Texas termite zone and slab R value in code.)

\*\*\*Section C402.5.2 Dwelling and sleeping unit enclosure testing. Added the underlined to read as follows

C402.5.2 Dwelling and sleeping unit enclosure testing. The building thermal envelope shall be tested in accordance with ASTM E779, ANSI/RESNET/ICC 380, ASTM E1827 or an equivalent method approved by the code official. The measured air leakage shall not exceed 0.30 cfm/ft<sup>2</sup> (1.5 Us m<sup>2</sup>) of the testing unit enclosure area at a pressure differential of 0.2 inch water gauge (50 Pa). Where multiple dwelling units or sleeping units or other occupiable conditioned spaces are contained within one building thermal envelope, each unit shall be considered an individual testing unit, and the building air leakage shall be the weighted average of all testing unit results, weighted by each testing unit's enclosure area. Units shall be tested separately with an unguarded blower door test as follows:

1. Where buildings have fewer than eight testing units, each testing unit shall be tested.
2. For buildings with eight or more testing units, the greater of seven units or 20 percent of the testing units in the building shall be tested, including a top floor unit, a ground floor unit, a middle floor unit, and a unit with the largest testing unit enclosure area. For each tested unit that exceeds the maximum air leakage rate, an additional two three units shall be tested, including a mixture of testing unit types and locations.

(Reason: For many multifamily (R2 classifications) projects, it is very costly and time consuming to test each dwelling unit for projects where there may be dozens of dwelling units in each building. Considering that the same tradesman generally constructs a building, it is reasonable to deem that construction practices are consistent and that if a reasonable sampling of units tested pass then all units would pass. These amendments are in line with RESNET sampling guidelines.)

\*\*\*Section R402.4.1 Building thermal envelope; add section R402.4.1.4 to read as follows

R402.4.1.4 Sampling options for R2 multifamily dwelling units. For buildings with eight or more testing units that must be tested as required by R402.4.1.2 or R402.4.1.3, the greater of seven units or 20 percent of the testing units in the building shall be tested, including a top floor unit, a ground floor unit, a middle floor unit, and a unit with the largest testing unit enclosure area. For each tested unit that exceeds the maximum air leakage rate, an additional three units shall be tested, including a mixture of testing unit types and locations. Where buildings have fewer than eight testing units, each testing unit shall be tested.

(Reason: For many multifamily (R2 classifications) projects, it is very costly and time consuming to test each dwelling unit for projects where there may be dozens of dwelling units in each building. Considering





North Central Texas  
Council of Governments

*that the same tradesman generally constructs a building, it is reasonable to deem that construction practices are consistent and that if a reasonable sampling of units tested pass then all units would pass. These amendments are in line with the commercial provisions of the commercial 2021 IECC and RESNET sampling guidelines.)*

**\*\*\*Section R403.3 Ducts; add section R403.3.8 to read as follows**

R403.3.8 Sampling options for R2 multifamily dwelling units. For buildings with eight or more testing units that must be tested as required by R403.3.5, the greater of seven units or 20 percent of the testing units in the building shall be tested, including a top floor unit, a ground floor unit, a middle floor unit, and a unit with the largest testing unit floor area. For each tested unit that exceeds the maximum duct leakage rate, an additional three units shall be tested, including a mixture of testing unit types and locations. Where buildings have fewer than eight testing units, each testing unit shall be tested.

*(Reason: For many multifamily (R2 classifications) projects, it is very costly and time consuming to test each dwelling unit for projects where there may be dozens of dwelling units in each building. Considering that the same tradesman generally constructs a building, it is reasonable to deem that construction practices are consistent and that if a reasonable sampling of units tested pass then all units would pass. These amendments are in line with the commercial provisions of the commercial 2021 IECC and RESNET sampling guidelines.)*

**\*\*\*Section R403.6 Mechanical Ventilation; add section R403.6.4 to read as follows**

R403.6.4 Sampling options for R2 multifamily dwelling units. For buildings with eight or more testing units that must be tested as required by R403.6.3, the greater of seven units or 20 percent of the testing units in the building shall be tested, including a top floor unit, a ground floor unit, a middle floor unit, and a unit with the largest testing unit floor area. For each tested unit that does not meet the minimum ventilation rate, an additional three units shall be tested, including a mixture of testing unit types and locations. Where buildings have fewer than eight testing units, each testing unit shall be tested.

*(Reason: For many multifamily (R2 classifications) projects, it is very costly and time consuming to test each dwelling unit for projects where there may be dozens of dwelling units in each building. Considering that the same tradesman generally constructs a building, it is reasonable to deem that construction practices are consistent and that if a reasonable sampling of units tested pass then all units would pass. These amendments are in line with the commercial provisions of the commercial 2021 IECC IECC and RESNET sampling guidelines.)*

**\*\*\*R405.2 Performance-based compliance. Added to underlined to read as follows.**

R405.2 Performance-based compliance. Compliance based on total building performance requires that a *proposed design* meets all of the following:

1. The requirements of the sections indicated within Table R405.2.
2. The building thermal envelope greater than or equal to levels of efficiency and solar heat gain coefficients in Table R402.1.1 or R402.1.3 of the 2009 *International Energy Conservation Code*.
3. An annual energy cost that is less than or equal to the annual energy cost of the 2021 standard reference design or 8% less than the annual energy cost of the 2018 standard reference design. Energy prices shall be taken from a source *approved by the code official*, such as the Department of Energy, Energy Information Administration's State Energy Data



North Central Texas Council of Governments

System Prices and Expenditures reports. Code officials shall be permitted to require time-of-use pricing in energy cost calculations.

Exception: The energy use based on source energy expressed in Btu or Btu per square foot of conditioned floor area shall be permitted to be substituted for the energy cost. The source energy multiplier for electricity shall be 3.16. The source energy multiplier for fuels other than electricity shall be 1.1.

(Reason: At the time of the approval of these recommended amendments, software to calculate and show compliance with section R405 of the 2021 IECC was not available. The underlined amendment allows an alternative option to show compliance until software is available.)

\*\*\*Section R401.2.5 Additional Energy efficiency; deleted in its entirety.

(Reason: The deletion is based on the Complexity of the section and lack of tools to verify compliance and due to conflict with HB2439, 86th Regular Session)

\*\*\*Section R408 ADDITIONAL EFFICIENCY PACKAGE OPTIONS; deleted in its entirety.

(Reason: The deletion is based on the omission of R401.2.5 and R408 no longer applies and due to conflict with HB2439, 86th Regular Session.)

\*\*\* Section R402.4.6 Electrical and Communication outlet boxes. Delete after the first sentence to read as follows.

\*\*\*R402.4.6 Electrical and communication outlet boxes (air-sealed boxes). Electrical and communication outlet boxes installed in the building thermal envelope shall be sealed to limit air leakage between conditioned and unconditioned spaces. ~~Electrical and communication outlet boxes shall be tested in accordance with NEMA OS 4, Requirements for Air Sealed Boxes for Electrical and Communication Applications, and shall have an air leakage rate of not greater than 2.0 cubic feet per minute (0.944 L/s) at a pressure differential of 1.57 psf (75 Pa). Electrical and communication outlet boxes shall be marked "NEMA OS 4" or "OS 4" in accordance with NEMA OS 4. Electrical and communication outlet boxes shall be installed per the manufacturer's instructions and with any supplied components required to achieve compliance with NEMA OS 4.~~

(Reason: Allow for alternatives and Avoid requiring proprietaries products.)

\*\*\*Section R404.2 Interior Lighting Controls; deleted in its entirety.

(Reason: The deletion is to eliminate confusion as the intent does not reflect what is written.)

\*\*TABLE R406.4 (N1106.4) MAXIMUM ENERGY RATING INDEX; amend to read as follows:

TABLE R406.4 (N1106.4) 1
MAXIMUM ENERGY RATING INDEX

Table with 2 columns: CLIMATE ZONE, ENERGY RATING INDEX. Rows for climate zones 2 and 3.

1 This table is effective until August 31, 2022.

TABLE R406.4 (N1106.4) 2
MAXIMUM ENERGY RATING INDEX



North Central Texas  
Council of Governments

CLIMATE ZONE	ENERGY RATING INDEX
2	52-59
3	52-59

<sup>2</sup> The table is effective from September 1, 2022 to August 31, 2025.

**TABLE R406.4 (N1106.4) <sup>3</sup>  
MAXIMUM ENERGY RATING INDEX**

CLIMATE ZONE	ENERGY RATING INDEX
2	52-57
3	52-57

<sup>3</sup> The table is effective from September 1, 2025 to August 31, 2028.

**TABLE R406.4 (N1106.4) <sup>3</sup>  
MAXIMUM ENERGY RATING INDEX**

CLIMATE ZONE	ENERGY RATING INDEX
2	52-55
3	52-55

<sup>4</sup> This table is effective on or after September 1, 2028.

*(Reason: The tables reflect the values and timetable set forth in HB 3215, 87<sup>th</sup> Regular Session Codified in Chapter 388 Texas Building Energy Performance Standards: §388.003.)*

**NOTE : HB 3215 was signed into law by the Governor on June 14, 2021 as part of the 87<sup>th</sup> Regular Session Codified in Chapter 388 Texas Building Energy Performance Standards: §388.003 (i), (j), and (k).** HB 3215 now allows a **Home Energy Rating System Index (ex. HERS Index)** utilizing ANSI/RESNET/ICC Standard 301 (as it existed on January 1, 2021) shall be considered in compliance with State law provided that:

- *The home includes compliance with the Mandatory requirements of 2018 IECC Section R406.2.*
- *The home includes compliance with Building thermal envelope provisions of Table R402.1.2 or Table R402.1.4 of the 2018 IECC*

**END**



North Central Texas  
Council of Governments

**Recommended Regional Amendments to the  
2021 International Swimming Pool and Spa Code**  
North Central Texas Council of Governments Region

The following sections, paragraphs, and sentences of the *2021 International Swimming Pool and Spa Code* are hereby amended as follows: Standard type is text from the ISPSC. Underlined type is text inserted. ~~Lined through type is deleted text from ISPSC.~~ A double asterisk at the beginning of a section identifies an amendment carried over from the 2018 edition of the code. A triple asterisk (\*\*\*) identifies a new or revised amendment with the 2021 ISPSC code.

**\*\*Section 102.9; Change to read as follows:**

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

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

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

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

**\*\*\*Section 113.4 Violation penalties; Changed to read as follows:**

**113.4 Violation penalties.** Any person who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter or repair a pool or spa in violation of the *approved* construction documents or directive of the *code official*, or of a permit or certificate issued under the provisions of this code ~~may be punishable for each day of the violation set forth by the *authority having jurisdiction*.~~ shall be guilty of a ~~[SPECIFY OFFENSE]~~, punishable by a fine of not more than ~~[AMOUNT]~~ dollars or by imprisonment not exceeding ~~[NUMBER OF DAYS]~~, or both such a fine and imprisonment. ~~Each day that a violation continues after due notice has been served shall be deemed a separate offense.~~

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

**\*\*\*Section 305; Change to read as follows:**

**305.1 General.**

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



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

**\*\* Add subsection 305.2.7.1; to read as follows:**

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

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

**\*\*\*Section 305.4 structure wall as a barrier; Changes as follows:**

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

1. Remainder Unchanged
2. Remainder Unchanged
3. Remainder Unchanged
4. Remainder unchanged
5. Remainder unchanged
6. Remainder unchanged

*(Reason: To clarify specific Texas Health and Safety Code Chapter 757.007.*

**\*\*Section 305.6; Change to read as follows:**

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

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

**\*\*Section 307.1.4 Accessibility; Add exception to Section to 307.1.4 as follows:**

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

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

**\*\*\*Section 307.2.2.2; add to read as follows:**

**Section 307.2.2.2. Adjacency to Structural Foundation.** Depth of the swimming pool and spa shall maintain a ratio of 1:1 from the nearest building foundation or footing of a retaining wall.



Exception:

A sealed engineered design drawing of the proposed new structure shall be submitted for approval.

*(Reason: To clarify specific distances for pools and spas, correlates with IRC 327.1.)*

**\*\*Section 310; Change to read as follows:**

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

*[Remainder unchanged]*

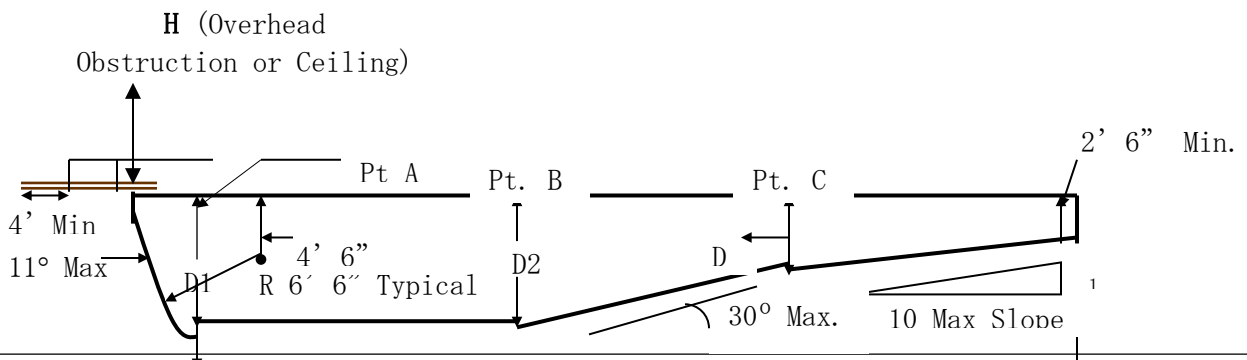
*(Reason: To clarify specific Texas statutes which regulate public pools and spas.)*

**\*\* Section 402.12; Change to read as follows:**

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

ADD: Figure: 25 TAC §265.186 (e) (6)

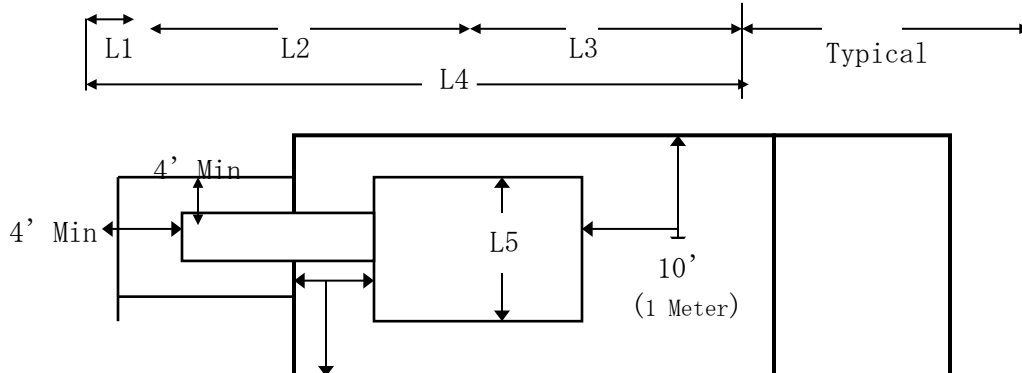
Maximum Diving Board Height Over Water	¾ Meter	1 Meter	3 Meters
Max. Diving Board Length	12 ft.	16 ft.	16 ft.
Minimum Diving Board Overhang	2 ft. 6 in.	5 ft.	5 ft.
D1 Minimum	8 ft. 6 in.	11 ft. 2 in.	12 ft. 2 in.
D2 Minimum	9 ft.	10 ft. 10 in.	11 ft. 10 in.
D3 Minimum	4 ft.	6 ft.	6 ft.
L1 Minimum	4 ft.	5 ft.	5 ft.
L2 Minimum	12 ft.	16 ft. 5 in.	19 ft. 9 in.
L3 Minimum	14 ft. 10 in.	13 ft. 2 in.	13 ft. 11 in.
L4 Minimum	30 ft. 10 in.	34 ft. 7 in.	38 ft. 8 in.
L5 Minimum	8 ft.	10 ft.	13 ft.
H Minimum	16 ft.	16 ft.	16 ft.
From Plummet to Pool Wall at Side	9 ft.	10 ft.	11 ft. 6 in.
From Plummet to Adjacent Plummet	10 ft.	10 ft.	10 ft.







North Central Texas  
Council of Governments



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

**\*\*Section 411.2.1 & 411.2.2; Change to read as follows:**

**411.2.1 Tread dimensions and area.** Treads shall have a minimum unobstructed horizontal depth (i.e., horizontal run) of 12 inches and a minimum width of 20 inches, ~~not be less than 24 inches (607mm) at the leading edge. Treads shall have an unobstructed surface area of not less than 240 square inches (154838mm<sup>2</sup>) and an unobstructed horizontal depth of not less than 10 inches (254 mm) at the center line.~~

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

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

**\*\*Section 411.5.1 & 411.5.2; Change to read as follows:**

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

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

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

1. Unchanged
2. Unchanged
3. Unchanged
4. Unchanged
5. The leading edge shall be visually set apart and provided with a horizontal solid or broken stripe at least 1 inch wide on the top surface along the front leading edge of each step. This stripe shall be.



plainly visible to persons on the pool deck. The stripe shall be a contrasting color to the background on which it is applied, and the color shall be permanent in nature and shall be a slip-resistant surface.

6. Unchanged
7. Unchanged

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

**\*\*Section 610.5.1; Change to read:**

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

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

**\*\*Section 804 Diving Water Envelopes; Change to read as follows:**

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

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

**END**



North Central Texas  
Council of Governments

**Recommended Amendments to the  
2021 International Plumbing Code**  
North Central Texas Council of Governments Region

The following sections, paragraphs, and sentences of the *2021 International Plumbing Code* are hereby amended as follows: Standard type is text from the IPC. Underlined type is text inserted. ~~Lined through type is deleted text from the IPC.~~ A double asterisk at the beginning of a section identifies an amendment carried over from the 2018 edition of the code and a triple asterisk identifies a new or revised amendment with the 2021 edition of the code.

Note: Historically NCTCOG has limited Chapter 1 amendments in order to allow each city to insert their local policies and procedures. We now have suggested certain items to be brought to the attention of cities considering adoption of the code that may be of concern to several jurisdictions. **It is still intended to be discretionary to each city to determine which Chapter 1 amendments to include.**

**\*\*\*Table of Contents, Chapter 7, Section 713; change to read as follows:**

714-713    Engineered Computerized Drainage Design . . . . . 69-7-12

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

**\*\*\*Section 102.8; change to read as follows:**

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

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

**\*\*\*Section 305; change to read as follows:**

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

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

**\*\*Section 305.4.1; changed to read as follows:**

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

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

**\*\*\*Section 306.2.4; added to read as follows:**

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

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

**\*\*Section 413.4; change to read as follows:**

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

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

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

**\*\*Section 608.17.5; change to read as follows:**

**608.17.5 Connections to lawn irrigation systems.**

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

*(Reason: To recognize regional practices.)*

**Section 703.6; Delete**

*(Reason: not a standard practice in this region)*

**\*\*Section 704.5; added to read as follows:**

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

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

**\*\*\*Section 712.4.3; add Section 712.4.3 to read as follows:**

**712.4.3 Dual Pump System.** All sumps shall be automatically discharged and, when in any “public use” occupancy where the sump serves more than 10 fixture units, shall be provided with dual pumps or ejectors arranged to function independently in case of overload or mechanical failure. For storm drainage sumps and pumping systems, see Section 1113.

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

**\*\*Section 713, 713.1; change to read as follows:**

### **SECTION 713 ENGINEERED COMPUTERIZED DRAINAGE DESIGN**

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

*(Reason: Code was too restrictive.)*

**\*\*\*Section 903.1.1; change to read as follows:**

~~**903.1 Roof extension**~~ **903.1.1 Roof extension unprotected.** Open vent pipes that extend through a roof shall terminate not less than six (6) inches (152 mm) above the roof. ~~Where a roof is to be used for assembly or as a promenade, observation deck, sunbathing deck or similar purposes, open vent pipes shall terminate not less than 7 feet (2134 mm) above the roof.~~

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

**\*\*Section 1109; delete this section.**

**\*\*\*Section 1202.1; delete Exceptions 1 and 2.**

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

**END**



North Central Texas  
Council of Governments

## Recommended Amendments to the 2021 International Fuel Gas Code

North Central Texas Council of Governments Region

The following sections, paragraphs, and sentences of the *2021 International Fuel Gas Code* are hereby amended as follows: Standard type is text from the IFGC. Underlined type is text inserted. ~~Lined through type is deleted text from IFGC.~~ A double asterisk at the beginning of a section identifies an amendment carried over from the 2018 edition of the code and a triple asterisk identifies a new or revised amendment with the 2021 code.

### **\*\*Section 101.2**

*{Local amendments to Section 101.2 may be necessary to correspond with the State Plumbing Licensing Law.}*

### **\*\*Section 102.2; add an exception to read as follows:**

**Exception:** Existing dwelling units shall comply with Section 621.2.

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

### **\*\*\*Section 102.8; change to read as follows:**

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

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

### **\*\*Section 306.5; change to read as follows:**

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

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

### **\*\*Section 306.5.1; change to read as follows:**

**[M] 306.5.1 Sloped roofs.** Where appliances, *equipment*, fans or other components that require service are installed on a roof having a slope of 3 units vertical in 12 units horizontal (25-percent slope) or greater



and having an edge more than 30 inches (762 mm) above grade at such edge, a catwalk at least 16 inches in width with substantial cleats spaced not more than 16 inches apart shall be provided from the roof access to a level platform at the appliance. The level platform shall be provided on each side of the appliance to which access is required for service, repair or maintenance. The platform shall be not less than 30 inches (762 mm) in any dimension and shall be provided with guards. The guards shall extend not less than 42 inches (1067 mm) above the platform, shall be constructed so as to prevent the passage of a 21-inch-diameter (533 mm) sphere and shall comply with the loading requirements for guards specified in the *International Building Code*.

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

**\*\*Section 401.5; add a second paragraph to read as follows:**

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

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

*(Reason: To protect homeowners and plumbers.)*

**\*\*Section 404.12; change to read as follows:**

**404.12 Minimum burial depth.** Underground piping systems shall be installed a minimum depth of ~~42~~ **18** inches (~~305~~ **458** mm) top of pipe below grade, ~~except as provided for in Section 404.12.1.~~

**404.12.1 Delete in its entirety.**

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

**\*\*\*Section 406.4; change to read as follows:**

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

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

**\*\*\*Section 406.4.1; change to read as follows:**

**406.4.1 Test pressure.** The test pressure to be used shall be no less than ~~4 1/2 times the proposed maximum working pressure, but no less than 3~~ **3** psig (20 kPa gauge), or at the discretion of the Code Official, the piping and valves may be tested at a pressure of at least six (6) inches (152 mm) of mercury, measured with a manometer or slope gauge, irrespective of design pressure. Where the test pressure exceeds 125 psig (862 kPa gauge), the test pressure shall not exceed a value that produces a hoop stress in the piping greater than 50 percent of the specified minimum yield strength of the pipe. For tests requiring a pressure of 3 psig, diaphragm gauges shall utilize a dial with a minimum diameter of three and one half inches (3 1/2"), a set hand, 1/10 pound incrementation and pressure range not to exceed 15 psi for tests requiring a pressure of 3 psig. For tests requiring a pressure of 10 psig, diaphragm gauges shall utilize a dial with a minimum diameter of three and one-half inches (3 1/2"), a set hand, a minimum of 2/10 pound incrementation and a pressure range not to exceed 50 psi. For welded piping, and for piping carrying gas at pressures in excess of fourteen (14) inches water column pressure (3.48 kPa) (1/2 psi) and less than 200 inches of water column pressure (52.2 kPa) (7.5 psi), the test pressure shall not be less than ten (10) pounds per square inch (69.6 kPa). For piping carrying gas at a pressure that exceeds

200 inches of water column (52.2 kPa) (7.5 psi), the test pressure shall be not less than one and one-half times the proposed maximum working pressure.

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

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

**\*\*Section 409.1; add Section 409.1.4 to read as follows:**

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

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

**\*\*Section 410.1; add a second paragraph and exception to read as follows:**

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

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

*(Reason: To require adequate access to regulators.)*

**\*\*Section 621.2; add exception as follows:**

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

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

*(Reason: Gives code official discretion.)*

**END**



North Central Texas  
Council of Governments

## Recommended Amendments to the 2021 International Mechanical Code North Central Texas Council of Governments Region

The following sections, paragraphs, and sentences of the *2021 International Mechanical Code* (IMC) are hereby amended as follows: Standard type is text from the IMC. Underlined type is text inserted. ~~Lined through type is deleted text from the IMC.~~ A double asterisk at the beginning of a section identifies an amendment carried over from the 2018 edition of the code and a triple asterisk identifies a new or revised amendment of the 2021 edition of the code.

Note: Historically the North Central Texas Council of Governments (NCTCOG) has limited Chapter 1 amendments in order to allow each city to insert their local policies and procedures. We now have suggested certain items to be brought to the attention of cities considering adoption of the code that may be of concern to several jurisdictions. **It is still intended to be discretionary to each city to determine which Chapter 1 amendments to include.**

### \*\*\*Section 102.8; change to read as follows:

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

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

### \*\*Section 306.5; change to read as follows:

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

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

### \*\*Section 306.5.1; change to read as follows:

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

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

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

**\*\*Section 501.3; add an exception to read as follows:**

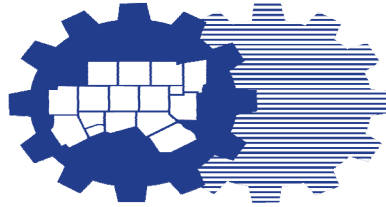
**501.3 Exhaust Discharge.** The air removed by every mechanical exhaust system shall be discharged outdoors at a point where it will not cause a public nuisance and not less than the distances specified in Section 501.3.1. The air shall be discharged to a location from which it cannot again be readily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

**Exceptions:**

1. Whole-house ventilation-type attic fans shall be permitted to discharge into the attic space of dwelling units having private attics.
2. Commercial cooking recirculating systems.
3. Where installed in accordance with the manufacturer's instructions and where mechanical or natural ventilation is otherwise provided in accordance with Chapter 4, listed and labeled domestic ductless range hoods shall not be required to discharge to the outdoors.
4. Toilet room exhaust ducts may terminate in a warehouse or shop area when infiltration of outside air is present.

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

**END**



## North Central Texas Council of Governments

### Recommended Amendments to the 2020 National Electrical Code North Central Texas Council of Governments

The following articles, paragraphs, and sentences of the *2020 National Electrical Code (NEC)* are hereby amended as follows: Standard type is text from the NEC. Highlighted with gray shading is text inserted. Lined through type is deleted text from NEC. A double asterisk (\*\*) at the beginning of an article identifies an amendment carried over from the 2017 edition of the code and a triple asterisk (\*\*\*) identifies a new or revised amendment with the 2020 code.

---

**\*\*Article 100; add the following to definitions:**

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

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

---

**\*\*Article 110.2; change the following to read as follows:**

**110.2 Approval.** The conductors and equipment required or permitted by this *Code* shall be acceptable only if approved. Approval of equipment may be evident by listing and labeling of equipment by a Nationally Recognized Testing Lab (NRTL) with a certification mark of that laboratory or a qualified third party inspection agency or a field evaluation by a Field Evaluation Body accredited by either the International Code Council International Accreditation Service AC354 or ANSI National Accreditation Board programs and approved by the AHJ.

*Exception: Unlisted equipment that is relocated to another location within a jurisdiction or is field modified is subject to the approval by the AHJ. This approval may be by a field evaluation by a NRTL or qualified third-party inspection agency or a field evaluation by a Field Evaluation Body accredited by either the ICC IAS AC354 or ANAB programs and approved by the AHJ*  
~~Manufacturer's self-certification of any equipment shall not be used as a basis for approval by the AHJ.~~

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

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

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

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

**\*\*\*Article 400.8 Field Identification Required: Change the following to read as follows**

**408.4 Field Identification Required.**

(A) Circuit Directory or Circuit Identification.

Every circuit and circuit modification shall be legibly identified as to its clear, evident, and specific purpose or use. The identification shall include an approved degree of detail that allows each circuit to be distinguished from all others. Spare positions that contain unused overcurrent devices or switches shall be described accordingly. The identification shall be included in a circuit directory that is located on the face or inside of, or in an approved location adjacent and permanently affixed the panel door in the case of a panelboard and at each switch or circuit breaker in a switchboard or switchgear. No circuit shall be described in a manner that depends on transient conditions of occupancy.

*(REASON FOR CHANGE: To add clarity and provide more positive options for enforcement and approval)*

**\*\*\*Article 410.118: Change the following to read as follows**

**410.118 Access to other boxes.**

Luminaires recessed in the ceilings, floors, or walls shall not be used to access outlet, pull, or junction boxes or conduit bodies, unless the box or conduit body is an integral part of the listed luminaire.

*Exception: removable luminaires with a minimum measurement of 22 in. X 22 in. shall be permitted to be used as access to outlet, pull, junction boxes or conduit bodies.*

*REASON FOR CHANGE: To add clarity and provide more positive options for enforcement and approval. This will allow access to boxes not integral with the luminaire. This measurement aligns with the limited access above a lay-in ceiling measurement in 110.26(A)(4).*

**\*\*\*Article 422.31 B: Change the following to read as follows**



## 422.31 B Appliances Rated over 300 Volt-Amperes

(B) Appliances Rated over 300 Volt-Amperes. For permanently connected appliances rated over 300 volt-amperes, the branch-circuit switch or circuit breaker shall be permitted to serve as the disconnecting means where the switch or circuit breaker is within sight from and is readily accessible to the appliance it serves or is capable of being locked in the open position in accordance with 110.25 and is readily accessible to the appliance it serves.

Informational Note No. 1: For appliances employing unit switches, see 422.34.

Informational Note No 2: The following means of access are considered to constitute readily accessible for this code change when conforming to the additional access requirements of the I Codes:

- (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.

*REASON FOR CHANGE: To add clarity and provide more positive options for enforcement and approval)*

**\*\*Article 500.8 (A) (3); change to read as follows:**

### 500.8 Equipment.

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

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

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

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

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

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

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

*(REASON FOR CHANGE: Carry over from previous amendment with change to better define the qualifications for an engineering judgment.)*

**\*\*Article 505.7 (A) changed to read as follows:**

**505.7 Special Precaution.**

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

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

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

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

*(REASON FOR CHANGE: Carry over from previous amendment with change to better define the qualifications for an engineering judgment.)*

**\*\*\*Article 695.6 A 1: Change the following to read as follows**

**695.6 (A) Supply Conductors.**

**(1) Services and On-Site Power Production Facilities.**

Service conductors and conductors supplied by on-site power production facilities shall be physically routed outside a building(s) and shall be installed as service-entrance conductors in accordance with 230.6, 230.9, and Parts III and IV of Article 230. Where supply conductors cannot be physically routed outside of buildings, the conductors shall be permitted to be routed through the building(s) where installed in accordance with 230.6(1) or (2).

~~Exception: The supply conductors within the fire pump room shall not be required to meet 230.6 (1) or (2).~~

*(REASON FOR CHANGE: To add clarity and provide more positive options for enforcement and approval. All Fire Pump rooms are not Fire Rated as on all 4 sides. There are Fault Currents that could exceed 150,000-190,000 amps and protection of these Service Conductors is essential and conflict with other codes specifically 230.70(A)(1).)*

**\*\*\*Article 71.15 A: Change the following to read as follows**

**710.15 General**

**710.15(A) Supply Output.**

Power supply to premises wiring systems fed by stand-alone or isolated microgrid power sources shall ~~be permitted to have less capacity than the calculated load. The capacity of the sum of all sources of the stand-alone supply shall be equal to or greater than the load posed by the largest single utilization equipment connected to the system. Calculated general lighting loads shall not be considered as a single load~~ have adequate capacity to meet the calculated load in accordance with Article 220.

Informational Note: ~~For general-use loads the system capacity can be calculated using the sum of the capacity of the firm sources, such as generators and ESS inverters. For specialty loads intended to be powered directly from a variable source, the capacity can be calculated using the sum of the variable sources, such as PV or wind inverters, or the combined capacity of both firm and variable sources.~~

*(REASON FOR CHANGE: To add clarity and provide more positive options for enforcement and approval. Unless amended, standby systems would not be required to meet any load demanded by their standby definitions.)*

**END**