



## **Recommended Amendments to the 2024 International Fire Code**

North Central Texas Council of Governments Region

The following sections, paragraphs, and sentences of the *2024 International Fire Code* (IFC) are hereby amended as follows: Standard type is text from the IFC. The underlined type is text inserted. ~~Lined through type is deleted text from IFC.~~ A double asterisk (\*\*) at the beginning of a section identifies an amendment carried over from the 2021 edition of the code and a triple asterisk (\*\*\*\*) identifies a new or revised amendment with the 2024 code.

### Notes:

To facilitate adoption, some I-Code sections contain blanks for fill-in information that needs to be supplied by the adopting jurisdiction as part of the adoption legislation. For example, the IFC contains:

Section 101.1. Insert: [name of jurisdiction]

Section 112.4. Insert: [offense, dollar amount, number of days]

Section 1103.5.3. Insert: [date by which sprinkler system must be installed]

For further information or assistance with adoption, including a sample ordinance, jurisdictions should contact the Code Council. Appendices must be specifically adopted by Ordinance and if adopted we have included recommended amendments to the Appendices.

***Red text is rejected as an amendment for Dripping Springs***

***Green text is proposed as an amendment for Dripping Springs***

### **Explanation of Options A and B:**

Please note that as there is a wide range in firefighting philosophies/ capabilities of cities across the region, and as a result, OPTIONS "A" and "B" are provided in the Fire and Building Code amendments. Jurisdictions should choose one of the options in each section based on their firefighting philosophies/ capabilities when adopting these code amendments.

### ***\*\*Section 102.1; change #3 to read as follows:***

3. Existing structures, facilities, and conditions when required in Chapter 11 or in specific sections of this code.

*(Reason: To clarify that there are other provisions in the fire code applicable to existing buildings that are not located in Chapter 11, including but not limited to Section 505 Premises Identification.)*

### ***\*\*\*Section 104.2.3; delete exception as follows:***



### **104.2.3 Alternative materials, design and methods of construction and equipment.**

The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative is not specifically prohibited by this code and has been *approved*.

~~Exception: Performance-based alternative materials, designs or methods of construction and equipment complying with the *International Code Council Performance Code*.~~

*(Reason: To remove the reference to a code that is typically not adopted by jurisdictions within our region)*

#### **\*\*\*Section 104.6; change to read as follows:**

**104.6 Notices and orders.** The *fire code official shall* is authorized to issue necessary notices or orders to ensure compliance with this code. Notices of violations shall be in accordance with Section 113.

*(Reason: To remove the mandatory language to allow more flexibility to the fire code official.)*

#### **\*\*Section 105.3.3; change to read as follows:**

**105.3.3 Occupancy Prohibited before Approval.** The building or structure shall not be occupied prior to the fire code official issuing a permit when required and conducting associated inspections indicating the applicable provisions of this code have been met.

*(Reason: For clarity to allow for better understanding in areas not requiring such permits, such as unincorporated areas of counties. This amendment may be struck by a city.)*

#### **\*\*\*Section 105.6; change to read as follows:**

**105.1 General.** Permits shall be in accordance with Sections 105.1.1 through 105.6.2527.

*(Reason: To reflect the addition of Sections 105.6.26 and 105.6.27 as part of this amendment package.)*

#### **\*\*Section 105.6.26; add to read as follows:**

**105.6.26 Electronic access control systems.** Construction permits are required to install or modify an electronic access control system, as specified in Chapter 10. A separate construction permit is required to install or modify a fire alarm system that may be connected to the access control system. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.

*(Reason: Adds construction permit requirements for electronic access control systems affecting access and/or egress to ensure proper design and installation of such systems. These changes*



reflect the local practices of municipalities in this region.)

**\*\*\*Section 105.6.27; add to read as follows:**

**105.6.27 Electric vehicle (EV) charging stations.** Construction permits are required to install or modify an electric vehicle charging station. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.

(Reason: Adds construction permit requirements for electric vehicle charging stations to ensure proper design and installation of such systems. These changes reflect the local practices of municipalities in this region.)

**\*\*Section 108.3; delete this section in its entirety:**

**108.3 Permit valuations.** The applicant for a permit shall provide an estimated value of the work for which the permit is being issued at the time of application. Such estimated valuations shall include the total value of work, including materials and labor, for which the permit is being issued, such as electrical, gas, mechanical, plumbing equipment and permanent systems. Where, in the opinion of the fire code official, the valuation is underestimated, the permit shall be denied unless the applicant can show detailed estimates acceptable to the fire code official. The fire code official shall have the authority to adjust the final valuation for permit fees.

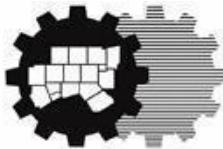
(Reason: Different jurisdictions establish permit fee requirements in different ways, and the majority in this region do not utilize this methodology for establishing Fire Code-required permit fees, as well as have already established and adopted applicable permit fee requirements.)

**\*\*Section 202; amend and add definitions to read as follows:**

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

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

(Reason: To clarify the range of uses included in the definition. [Explanatory note related to Ambulatory Care Facilities: This group of uses includes medical or dental offices where persons are put under for dental surgery or other services. Section 903.2.2.1 will now require such uses to be sprinklered if on other than the floor of exit discharge or if four or more persons are put



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*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 recipient's incapable of self-preservation allowed.)*

**\*\*\*ASSISTED LIVING FACILITIES.** A building or part thereof housing persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment which provides personal 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.)*

**\*\*\*CARBON MONOXIDE SOURCE.** ~~A piece of commonly used equipment or permanently installed appliance, fireplace or process that produces or emits carbon monoxide gas. A combustion process that has the potential to produce carbon monoxide as a product of combustion under normal or abnormal conditions. Carbon monoxide sources include, but are not limited to solid-, liquid-, or gas-fueled appliances, equipment, devices, or systems, such as fireplaces, furnaces, heaters, boilers, cooking equipment, and vehicles with internal combustion engines.~~

*(Reason: Updated to match the approved changes in the 2027 IFC to provide clarity for enforcement.)*

**\*\*\*CARBON MONOXIDE SOURCE, DIRECT.** A permanently installed carbon monoxide source that is located in an interior space.

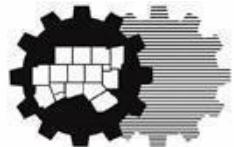
*(Reason: Updated to match the approved changes in the 2027 IFC to provide clarity for enforcement.)*

**\*\*\* CARBON MONOXIDE SOURCE, INDIRECT.** A carbon monoxide source connected to an interior space by a forced air supply duct.

*(Reason: Updated to match the approved changes in the 2027 IFC to provide clarity for enforcement.)*

**\*\*FIRE WATCH.** A temporary measure intended to ensure continuous and systematic surveillance of a building or portion thereof by one or more qualified individuals ~~or standby personnel when required by the fire code official~~, for the purposes of identifying and controlling fire hazards, detecting early signs of unwanted fire, raising an alarm of fire and notifying the fire department.

*(Reason: Clearly defines options to the fire department for providing a fire watch.)*



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**\*\*FIREWORKS.** Any composition or device for the purpose of producing a visible or an audible effect for entertainment purposes by combustion, *deflagration*, or *detonation*, and/or activated by ignition with a match or other heat-producing device that meets the definition of 1.3G fireworks or 1.4G fireworks. ... *{Remaining of text unchanged}*

(Reason: Increased safety from fireworks-related injuries.)

**\*\*Option A**

**HIGH-PILED COMBUSTIBLE STORAGE:** add a second paragraph to read as follows:

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

**\*\*Option B**

**HIGH-PILED COMBUSTIBLE STORAGE:** add a second paragraph to read as follows:

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

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

**\*\*Option A**

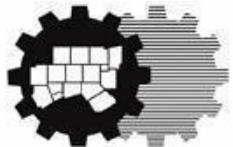
**HIGH-RISE BUILDING. {No Change Required}**

**\*\*\*Option B**

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

(Reason: Allows for additional construction safety features to be provided, based on firefighting response capabilities.)

**\*\*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,



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windshield repair or replacement, shocks, minor part replacement, and other such minor repairs.

*(Reason: To further clarify types of service work allowed in a repair garage, as well as to correspond with the definition in the IBC.)*

**\*\*SELF-SERVICE STORAGE FACILITY.** Real property designed and used to rent or lease individual storage spaces to customers to store and remove personal property on a self-service basis.

*(Reason: To provide a definition that does not exist in the code.)*

**\*\*STANDBY PERSONNEL.** Qualified fire service personnel, approved by the Fire Code Official. When utilized, the number required shall be as directed by the Fire Code Official. Charges for utilization shall be as normally calculated by the jurisdiction.

*(Reason: To provide a definition that does not exist in the code for fire watch accommodations as required by the jurisdiction.)*

**\*\*UPGRADED OR REPLACED FIRE ALARM SYSTEM.** A fire alarm system that is upgraded or replaced includes, but is not limited to the following:

- Replacing one single board or fire alarm control unit component with a newer model
- Installing a new fire alarm control unit in addition to or in place of an existing one
- Conversion from a horn system to an emergency voice/alarm communication system
- Conversion from a conventional system to one that utilizes addressable or analog devices

The following are not considered an upgrade or replacement:

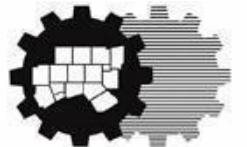
- Firmware updates
- Software updates
- Replacing boards of the same model with chips utilizing the same or newer firmware

*(Reason: This is referenced in several places, but the wording of “upgraded or replaced” is somewhat ambiguous and open to interpretation. Defining it here allows for consistent application across the region.)*

**\*\*\*Section 203.2.3; add a sentence to read as follows:**

**203.2.3 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.)*



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**\*\*\*Section 304.1.1; change to read as follows:**

**304.1.1 Valet trash.** Valet trash collection shall be permitted only where approved. The owner and valet trash collection service provider shall comply with the rules and limitations established by the jurisdiction. Refer to Appendix O for further information.

*(Reason: To provide reference to the appendix which provides additional requirements and guidelines. Note: this appendix must be adopted via ordinance)*

**\*\*307.1.1; change to read as follows:**

**307.1.1 Prohibited Open Burning.** Open burning ~~shall be prohibited that is offensive or objectionable because of smoke emissions or when atmospheric conditions or local circumstances make such fires hazardous shall be prohibited.~~

**Exception:** {No change.}

*(Reason: To further protect adjacent property owners/occupants from open burning and/or smoke emissions from open burning.)*

**\*\*Section 307.2; change to read as follows:**

**307.2 Permit Required.** A permit shall be obtained from the *fire code official* in accordance with Section 105.6 prior to kindling a fire for recognized silvicultural or range or wildlife management practices, prevention or control of disease or pests, or open burning-a bonfire. Application for such approval shall only be presented by and permits issued to the owner of the land upon which the fire is to be kindled.

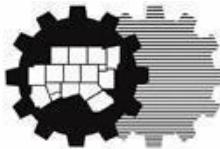
Examples of state or local law, or regulations referenced elsewhere in this section may include but not be limited to the following:

1. Texas Commission on Environmental Quality (TCEQ) guidelines and/or restrictions.
2. State, County, or Local temporary or permanent bans on open burning.
3. Local written policies as established by the *fire code official*.

*(Reason: Amendments to 307.2, 307.3, 307.4, 307.4.3, and 307.5 better explain current requirements and recognize that jurisdictions have locally established policies that best fit their environments.)*

**\*\*\*Section 307.3; change to read as follows:**

**307.3 Extinguishment Authority.** When open burning creates or adds to a hazardous or objectionable situation, or a required permit for open burning has not been obtained, the *fire code official* is authorized to order the extinguishment of the open burning operation. The fire code



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official is authorized to order the extinguishment of the open burning operation by the permit holder, another responsible party, or the fire department.

*(Reason: Provides direction as to responsible parties relative to extinguishment of the subject open burning.)*

**\*\*Section 307.4 and 307.4.1; change to read as follows:**

**307.4 Location.** The location for open burning shall not be less than 50 300 feet (15 240 91 440 mm) from any structure, and provisions shall be made to prevent the fire from spreading to within 50 300 feet (15 240 91 440 mm) of any structure.

**Exceptions:** {No change.}

**307.4.1 Bonfires.** A bonfire shall not be conducted within 50 feet (15 240 mm), or greater distance as determined by the fire code official, of a structure or combustible material, unless the fire is contained in a barbecue pit. Conditions that could cause a fire to spread to within the required setback 50 feet (15 240 mm) of a structure shall be eliminated prior to ignition.

*(Reason: To increase the separation distance thereby increasing the safety of adjacent properties, as per applicable TCEQ rules and regulations regarding outdoor burning. Bonfires were added to this requirement to allow the AHJ the ability to match the increased setback utilized for open burning as necessary. The size of the bonfire will help to determine needed setback, fire equipment, and apparatus as per permit requirements.)*

**\*\*Section 307.4.3, Exceptions; add exception #2 to read as follows:**

**Exceptions:**

1. Portable outdoor fireplaces used at one- and two-family dwellings.
2. Where buildings, balconies, and decks are protected by an approved automatic sprinkler system.

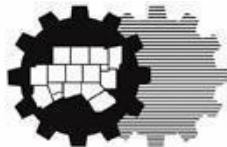
*(Reason: To reflect similar allowances for open-flame cooking in these same locations.)*

**\*\*Section 307.4.4 and 307.4.5; add sections to read as follows:**

**307.4.4 Permanent Outdoor Firepit.** Permanently installed outdoor firepits for recreational fire purposes shall not be installed within 10 feet of a structure or combustible material.

**Exception:** Permanently installed outdoor fireplaces constructed in accordance with the International Residential Code or International Building Code.

**307.4.5 Trench Burns.** Trench burns shall be conducted in air curtain trenches and in accordance with Section 307.2.



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*(Reason: To provide a greater level of safety for this potentially hazardous fire exposure condition. Decrease in separation distance allowed for outdoor firepits due to the permanent nature of construction having substantial securement.)*

**\*\*\*Section 307.5; change to read as follows:**

**307.5 Attendance.** Open burning, trench burns, bonfires, *recreational fires*, and use of portable or permanent outdoor fireplaces or firepits shall be constantly attended until the... {*Remainder of section unchanged*}

*(Reason: Adds attendance for trench burns and outdoor fireplaces and firepits based on previous amendment provision for such to be all-inclusive.)*

**\*\*\*Section 308.1.6, Exception #3; change to read as follows:**

3. Torches or flame-producing devices in accordance with Section 308.4 or 308.1.3.

*(Reason: Additional section applies to this exception.)*

**\*\*\*Section 308.1.7; change to read as follows:**

**308.1.7 Sky Lanterns.** A person shall not release or cause to be released an untethered unmanned free-floating device containing an open flame or other heat source, such as but not limited to a *sky lantern*.

*(Reason: Eliminates the potential fire hazard presented by utilization of such devices and the potential accidental release of such devices.)*

**\*\*\*Section 308.1.9; change to read as follows:**

**308.1.9 Aisles and exits.**

Candles or open flames shall be prohibited in areas where occupants stand, or in an *aisle* or *exit*.

*(Reason: To limit open flames in addition to candles within areas where occupants stand or in aisles or exit to limit the fire hazards associated with the use of open flames in such areas.)*

**\*\*\*Section 308.1.11; add a section to read as follows**

**308.1.11 Open-flame Cooking Devices.** Open flame cooking devices shall comply with Section 4104.

*(Reason: To provide reference to the code section that has additional requirements for open flame cooking devices.)*



**\*\*Section 311.5; change to read as follows:**

**311.5 Placards.** The fire code official is authorized to require marking of any vacant or abandoned buildings or structures determined to be unsafe pursuant to Section 115 of this code relating to structural or interior hazards, shall be marked as required by Section 311.5.1 through 311.5.5.

*(Reason: There may be situations where placarding is not desired or necessary; also clarifies intent that it is not the fire code official's responsibility to provide the placard.)*

**\*\*\*Section 314.4; change to read as follows:**

**314.4 Vehicles.** Electric, liquid-fueled, or gaseous-fueled vehicles, aircraft, boats, or other motor craft shall not be located indoors except as follows:

1. The engine starting system is made inoperable or ignition batteries are disconnected except where the *fire code official* requires that the batteries remain connected to maintain safety features.
2. Fuel in fuel tanks does not exceed any of the following:
  - 2.1. Class I, II, and III liquid fuel does not exceed one-quarter tank or 5 gallons (19 L), whichever is less.
  - 2.2. LP gas does not exceed one-quarter tank or 6.6 gallons (25 L), whichever is less.
  - 2.3. CNG does not exceed one-quarter tank or 630 cubic feet (17.8 m<sup>3</sup>), whichever is less.
  - 2.4. Hydrogen does not exceed one-quarter tank or 2,000 cubic feet (57 m<sup>3</sup>), whichever is less.
3. Fuel tanks and fill openings are closed and sealed to prevent tampering.
4. Vehicles, aircraft, boats, or other motor craft equipment are not fueled or defueled within the building.
5. Electric vehicles shall not be charged inside buildings or other structures, other than where approved in parking garages, or unless otherwise approved by the fire code official.

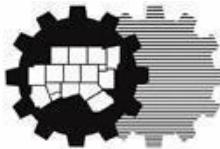
*(Reason: To add safeguards for electric vehicles when on display indoors.)*

**\*\*\*Section 323; add new sections to read as follows:**

**323 Electric Vehicles (EVs).**

**323.1 Electric Vehicle Charging Stations.** Electric vehicle (EV) charging stations shall not be located inside buildings and/or structures, except where approved for parking garage locations as per the National Electrical Code.

**323.1.1 Charging Stations Inside Parking Garage.** EV charging stations located in parking garages shall be located at grade level along the exterior



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perimeter walls and shall be within 150 feet of fire apparatus access roadway, or shall be located on the top level of the garage with no roof or structure above.

**323.1.2 Charging Stations inside R-3 and R-4 occupancies.** Approved charging stations in the private garage shall have a listed heat alarm installed in the garage and interconnected to the smoke alarms inside the dwelling.

**323.2 Disconnect.** Locations containing electric vehicle charging stations shall be provided with a clearly identified and readily accessible emergency disconnect installed in an approved location.

The emergency disconnects for exterior electric vehicle charging stations shall be located within 100 feet (30 480 mm) of, but not less than 20 feet (6096 mm) from the charging stations, unless otherwise approved by the fire code official.

**323.2.1 Height.** The height of the emergency disconnect switch shall be not less than 42 inches (1067 mm) and not more than 48 inches (1219 mm) measured vertically, from the floor level to the activating button.

**323.2.2 Emergency Disconnect Sign.** Emergency disconnect devices shall be distinctly labeled as: "EMERGENCY ELECTRIC VEHICLE CHARGER DISCONNECT." Signs shall be placed in an *approved* location and shall consist of all of the following:

1. White reflective background with red letters.
2. Weather-resistant durable material.
3. Lettering not less than 2 inches (51 mm) high.
4. Permanently affixed to the building or structure in an approved manner.

**323.3 Damaged Electric Vehicle Batteries.** Damaged electric vehicle batteries shall not be stored inside any building or structure, unless otherwise approved by the Fire Code Official.

*(Reason: Electric vehicle fire events have shown to be very difficult to control and extinguish, especially those powered by Li-Ion batteries, and charging can be a potential contributor to these fires. As a result, such vehicles should be charged outside or in approved locations. In addition, the added emergency disconnect is similar to that of fuel station fueling operations to ensure a readily accessible emergency power disconnect in case of emergency at the charging unit. The above sections are not retroactive to existing buildings having previously approved charging stations.)*

\*\*\*Section 404.2.2; add Number 4.10. to read as follows:

4.10. Fire Protection system controls.

*(Reason: This information could be of great help to such plans to facilitate locating sprinkler*



valves to minimize water damage, for instance.)

**\*\*Section 405.5; change to read as follows:**

**405.5 Time.** The fire code official may require an evacuation drill at any time. Drills shall be held at unexpected times and under varying conditions to simulate the unusual conditions that occur in case of fire.

**Exceptions:**

1. {No change.}
2. {No change.}
3. Notification of teachers/staff having supervision of light- or sound-sensitive students/occupants, such as those on the autism spectrum, for the protection of those students/occupants, shall be allowed prior to conducting a drill.

(Reason: This change clarifies who may require a fire or evacuation drill, and also allows for consideration/protection of students/occupants who may be severely negatively impacted by the nature of a fire alarm notification during a practice drill.)

**\*\*Section 501.4; change to read as follows:**

**501.4 Timing of Installation.** When fire apparatus access roads or a water supply for fire protection are required to be installed for any structure or development, they shall be installed, tested, and approved prior to the time of which construction has progressed beyond completion of the foundation of any structure, such protection shall be installed and made serviceable prior to and during the time of construction except when approved alternative methods of protection are provided. Temporary street signs shall be installed at each street intersection when construction of new roadways allows passage by vehicles in accordance with Section 505.2.

(Reason: Reflects current practice in the region relative to ensuring fire department and EMS access during construction, which can be a time of increased frequency for emergency incidents.)

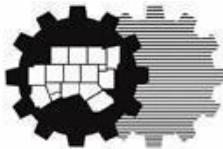
**\*\*Section 503.1.1; add sentence to read as follows:**

Except for one- or two-family dwellings, the path of measurement shall be along a minimum of a 10 feet (3048 mm) wide unobstructed pathway around the external walls of the structure.

(Reason: Recognizes that the hose lay provision can only be measured along a pathway that is wide enough for fire fighter access.)

**\*\*Section 503.2.1; change to read as follows:**

**503.2.1 Dimensions.** Fire apparatus access roads shall have an unobstructed width of not less than 20-24 feet (6096 mm 7315 mm), exclusive of shoulders, except for approved security gates



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in accordance with Section 503.6, and an unobstructed vertical clearance of not less than ~~13 feet 6 inches (4115 mm)~~ 14 feet (4267 mm).

**Exception:** Vertical clearance may be reduced; provided such reduction does not impair access by fire apparatus and approved signs are installed and maintained indicating the established vertical clearance when approved.

(Reason: Amendments to 503.2.1 and 503.2.2 recognize that the equipment now used in firefighting is increasing in size. The code already recognizes that larger dimensions may be required under Section 503.2.2. The amendments are intended to standardize the dimensions for this region. With the increase in fire apparatus size, this will allow for the passage of two fire apparatus side-by-side during a fire or EMS emergency.)

**\*\*Section 503.2.2; change to read as follows:**

**503.2.2 Authority.** The fire code official shall have the authority to require ~~or permit modifications to the required an increase in the minimum~~ access widths and vertical clearances where they are inadequate for fire or rescue operations or where necessary to meet the public safety objectives of the jurisdiction.

(Reason: Amendments to 503.2.1 and 503.2.2 recognize that the equipment now used in firefighting is increasing in size. The code already recognizes that larger dimensions may be required under Section 503.2.2. The amendments are intended to standardize the dimensions for this region. With the increase in fire apparatus size, this will allow for the passage of two fire apparatus side-by-side during a fire or EMS emergency.)

**\*\*Section 503.2.3; change Section 503.2.3 to read as follows:**

**503.2.3 Surface.** Fire apparatus access roads shall be designed and maintained to support imposed loads of 85,000 Lbs. for fire apparatus and shall be surfaced so as to provide all-weather driving capabilities.

(Reason: To address the current size of fire trucks in use – figure derived from DOT requirements for waiver of vehicle exceeding such weight and from current maximum weights of fire trucks being purchased by jurisdictions in the region.)

**\*\*Section 503.3; change to read as follows:**

**503.3 Marking.** ~~Where required by the fire code official, approved signs or other approved notices or markings that include the words NO PARKING FIRE LANE Striping, signs, or other markings, when approved by the fire code official, shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. The means by which fire lanes are designated Striping, signs and other markings shall be maintained in a clean and legible condition at all times and be replaced or repaired when necessary to provide adequate visibility.~~



**(1) Striping** – Fire apparatus access roads shall be continuously marked by painted lines of red traffic paint six inches (6") in width to show the boundaries of the lane. The words “NO PARKING FIRE LANE” or “FIRE LANE NO PARKING” shall appear in four inch (4”) white letters at 25 feet intervals on the red border markings along both sides of the fire lanes. Where a curb is available, the striping shall be on the vertical face of the curb.

**(2) Signs** – Signs shall read “NO PARKING FIRE LANE” or “FIRE LANE NO PARKING” and shall be 12” wide and 18” high. Signs shall be painted on a white background with letters and borders in red, using not less than 2” lettering. Signs shall be permanently affixed to a stationary post and the bottom of the sign shall be six feet, six inches (6'6”) above finished grade. Signs shall be spaced not more than fifty feet (50’) apart along both sides of the fire lane. Signs may be installed on permanent buildings or walls or as approved by the Fire Chief.

*(Reason: Establishes a standard method of marking and reflects regional long-standing practices.)*

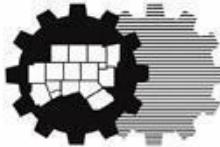
**\*\*Section 503.4; change to read as follows:**

**503.4 Obstruction of Fire Apparatus Access Roads.** Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. The minimum widths and clearances established in Section 503.2.1 and 503.2.2 and any area marked as a fire lane as described in Section 503.3 shall be maintained at all times.

*(Reason: As originally worded, the section implied that vehicles could be parked in the marked fire lane and not be in violation if the minimum width is still maintained. Current accepted enforcement practice is to require the entire marked fire lane to be maintained clear and unobstructed.)*

**\*\*Section 505.1; change to read as follows:**

**505.1 Address Identification.** New and existing buildings shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be not less than 4 inches (102 mm) 6 inches (152.4 mm) high with a minimum stroke width of 1/2 inch (12.7 mm). Where required by the fire code official, address numbers shall be provided in additional approved locations to facilitate emergency response. Where access is by means of a private road, buildings do not immediately front a street, and/or the building cannot be viewed from the public way, a monument, pole or other sign with approved 6 inch (152.4 mm) height building numerals or addresses and 4 inch (101.6 mm) height suite/apartment numerals of a color contrasting with the background of the building or other approved means shall be used to identify the structure.



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Numerals or addresses shall be posted on a minimum 20 inch (508 mm) by 30 inch (762 mm) background on border. Address identification shall be maintained. (Committee recommends removal)

**Exception:** R-3 Single Family occupancies shall have approved numerals of a minimum 3 1/2 inches (88.9 mm) in height and a color contrasting with the background clearly visible and legible from the street fronting the property and rear alleyway where such alleyway exists.

*(Reason: To increase the minimum addressing requirements for commercial properties and establish a minimum for single-family residential properties improving legibility of these signs which are critical to emergency response in a timelier manner.)*

**\*\*Section 507.4; change to read as follows:**

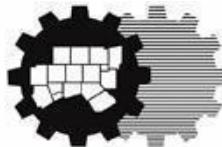
**507.4 Water Supply Test Date and Information.** The water supply test used for hydraulic calculation of fire protection systems shall be conducted in accordance with NFPA 291 “Recommended Practice for Fire Flow Testing and Marking of Hydrants” and within one year of sprinkler plan submittal. The fire code official shall be notified prior to the water supply test. Water supply tests shall be witnessed by the fire code official, as required or approved documentation of the test shall be provided to the fire code official prior to final approval of the water supply system. The exact location of the static/residual hydrant and the flow hydrant shall be indicated on the design drawings. All fire protection plan submittals shall be accompanied by a hard copy of the waterflow test report, or as approved by the fire code official. The report must indicate the dominant water tank level at the time of the test and the maximum and minimum operating levels of the tank, as well, or identify applicable water supply fluctuation. The licensed contractor must then design the fire protection system based on this fluctuation information, as per Section 903.3.5 and the applicable referenced NFPA standard. Reference Section 903.3.5 for additional design requirements.

**Exception:** This exception is only applicable to the NFPA 291 fire hydrant flow test above. Water supply test information may be provided by the water authority via hydraulic water model where approved by the fire code official. The water model report shall include the exact location of the water model node on the city’s water supply piping, elevation, water supply fluctuation information, and all other pertinent water supply test information for fire protection design, as applicable.

*(Reason: Clarifies intent of the test to ensure contractor accounts for water supply fluctuations, as required.)*

**\*\*Section 507.5.4; change to read as follows:**

**507.5.4 Obstruction.** Unobstructed access to fire hydrants shall be maintained at all times. Posts, fences, vehicles, growth, trash, storage and other materials or objects shall not be placed or kept



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near fire hydrants, fire department inlet connections or fire protection system control valves in a manner that would prevent such equipment or fire hydrants from being immediately discernible.  
The fire department shall not be deterred or hindered from gaining immediate access to fire protection equipment or fire hydrants.

*(Reason: Additional guidance based on legacy language to ensure these critical devices are available in an emergency incident.)*

**\*\*Section 509.1.2; add to read as follows:**

**509.1.2 Sign Requirements.** Unless more stringent requirements apply, lettering for signs required by this section shall have a minimum height of 2 inches (50.8 mm) when located inside a building and 4 inches (101.6 mm) when located outside, or as approved by the fire code official. The letters shall be of a color that contrasts with the background.

*(Reason: Provides direction as to appropriate sign criteria to develop local and regional consistency in this regard.)*

**\*\*\*Section 510.6.1: add paragraph to read as follows:**

The inspecting radio contractor shall provide an annual inspection tag/sticker on the ERCES' BDA and any remote annunciator. Tag/sticker shall identify approved inspecting contractor's name, physical address, phone number, and FCC license number, and inspector's name, as well as the date of inspection. System shall not be tagged until all inspection requirements of this section are conducted. Tag/sticker shall be blue in color for a passing system. If this is not possible for any reason, tag/sticker shall be red in color for a failing system with reasons for failure indicated on the tag if possible. If red tag/sticker is placed, AHJ/Fire Marshal shall be notified within a maximum of 24 hours.

*(Reason: There is no current state licensing or tagging requirements for these important communications systems that are critical to life and firefighter safety.)*

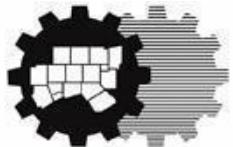
**\*\*\*Section 604.7; change to read as follows:**

**Section 604.7 Storage.** Storage is prohibited in elevator cars or elevator machine rooms. Signage shall be provided at the entry doors to the elevator machine room indicating "ELEVATOR MACHINERY – NO STORAGE ALLOWED."

*Exceptions remain unchanged*

*(Reason: To add signage requirements to aid in limiting storage within elevator machine rooms.)*

**\*\*Section 605.4 through 605.4.2.2; change to read as follows:**



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**605.4 Fuel oil storage systems.** Fuel oil storage systems shall be installed and maintained in accordance with this code. Tanks and fuel-oil piping systems shall be installed in accordance with Chapter 13 of the *International Mechanical Code* and Chapter 57.

**605.4.1 Fuel oil storage in outside, above-ground tanks.** Where connected to a fuel-oil piping system, the maximum amount of fuel oil storage allowed outside above ground without additional protection shall be 660 gallons (2498 L). The storage of fuel oil above ground in quantities exceeding 660 gallons (2498 L) shall comply with NFPA 31 and Chapter 57.

**605.4.1.1 Approval.** Outdoor fuel oil storage tanks shall be in accordance with UL 80, UL 142, UL142A or UL 2085, and also listed as double-wall/secondary containment tanks.

**605.4.2 Fuel oil storage inside buildings.** Fuel oil storage inside buildings shall comply with Sections 605.4.2.12 through 605.4.2.8 or and Chapter 57.

**605.4.2.1 Approval.** Indoor fuel oil storage tanks shall be in accordance with UL 80, UL 142, UL142A or UL 2085.

**605.4.2.2 Quantity limits.** One or more fuel oil storage tanks containing Class II or III combustible liquid shall be permitted in a building. The aggregate capacity of all tanks shall not exceed the following:

1. 660 gallons (2498 L) in unsprinklered buildings, where stored in a tank complying with UL 80, UL 142, UL 142A or UL 2085, and also listed as a double-wall/secondary containment tank for Class II liquids, and the secondary containment shall be monitored visually or automatically.
2. 1,320 gallons (4996 L) in buildings equipped with an *automatic sprinkler* system in accordance with Section 903.3.1.1, where stored in a tank complying with UL 142, UL 142A or UL 2085. The tank shall be listed as a secondary containment tank, and the secondary containment shall be monitored visually or automatically.
3. 3,000 gallons (11 356 L) in buildings equipped with an *automatic sprinkler* system in accordance with Section 903.3.1.1, where stored in protected above-ground tanks complying with UL 2085 and Section 5704.2.9.7. The tank shall be listed as a secondary containment tank, as required by UL 2085, and the secondary containment shall be monitored visually or automatically.

*(Reason: Issues addressed by Chapter 57, such as venting to outside of buildings, remote fill to outside of building, overfill protection, physical protection, etc., are not included in Section 605.4, so compliance with Chapter 57 is also required. The Board removed the applicability to heating systems only from the charging statement based on this more prudent method of diesel storage for generators, boilers, fire pumps and other fuel-fired equipment inside buildings without requiring Group H occupancy classification – this is established practice in the region*



as well.)

**\*\*Section 807.5.2.2; change to read as follows:**

**807.5.2.2 Artwork in Corridors.** Artwork and teaching materials shall be limited on the walls of corridors to not more than 20 percent of the wall area. Such materials shall not be continuous from floor to ceiling or wall to wall. Curtains, draperies, wall hangings, and other decorative material suspended from the walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 in accordance with Section 807 or be noncombustible.

Exception: Corridors protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 shall be limited to 50 percent of the wall area.

*(Reason: This change allows an increase in wall coverage due to the presence of sprinklers. Also provides additional guidance relative to fire resistance requirements in these areas.)*

**\*\*Section 807.5.2.3; change to read as follows:**

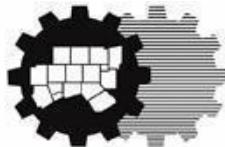
**807.5.2.3 Artwork in Classrooms.** Artwork and teaching materials shall be limited on walls of classrooms to not more than 50 percent of the specific wall area to which they are attached. Curtains, draperies, wall hangings and other decorative material suspended from the walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 in accordance with Section 807 or be noncombustible.

*(Reason: This change provides additional guidance relative to fire resistance requirements in these areas.)*

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

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

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



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outlet. Verify that check valves function properly and that there are no closed control valves on the system.

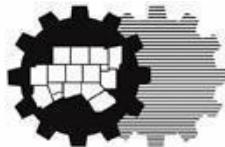
3. Any pressure relief, reducing, or control valves shall be tested in accordance with the requirements of NFPA 25. All hose valves shall be exercised.
4. If the FDC is not already provided with approved caps, the contractor shall install such caps for all FDC's as required by the *fire code official*.
5. Upon successful completion of standpipe test, place a blue tag (as per Texas Administrative Code, Fire Sprinkler Rules for Inspection, Test and Maintenance Service (ITM) Tag) at the bottom of each standpipe riser in the building. The tag shall be check-marked as "Fifth Year" for Type of ITM, and the note on the back of the tag shall read "5 Year Standpipe Test" at a minimum.
6. The procedures required by Texas Administrative Code Fire Sprinkler Rules with regard to Yellow Tags and Red Tags or any deficiencies noted during the testing, including the required notification of the local Authority Having Jurisdiction (*fire code official*) shall be followed.
7. Additionally, records of the testing shall be maintained by the owner and contractor, if applicable, as required by the State Rules mentioned above and NFPA 25.
8. Standpipe system tests where water will be flowed external to the building shall not be conducted during freezing conditions or during the day prior to expected night time freezing conditions.
9. Contact the *fire code official* for requests to remove existing fire hose from Class II and III standpipe systems where employees are not trained in the utilization of this firefighting equipment. All standpipe hose valves must remain in place and be provided with an approved cap and chain when approval is given to remove hose by the *fire code official*.

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

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

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

*(Reason: Places the responsibility on the business or property owner to maintain their fire alarm*



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*systems in approved condition. Allows the enforcement of “prohibition of false alarms”. Replaces text lost from the legacy codes that helps to ensure the maintenance of life safety systems.)*

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

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

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

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

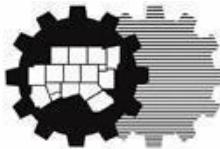
**903.1.1 Alternative Protection.** Alternative automatic fire-extinguishing systems complying with Section 904 shall be permitted instead of in addition to automatic sprinkler protection where recognized by the applicable standard and, or as approved by the *fire code official*.

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

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

**903.2 Where required.** Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.12. Automatic Sprinklers shall not be installed in elevator machine rooms, elevator machine spaces, and elevator hoistways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances.

Exception: Spaces or areas in telecommunications buildings used exclusively for telecommunications equipment, associated electrical power distribution equipment, batteries not required to have an automatic sprinkler system by Section 1207 for energy storage systems and standby engines, provided that those spaces or areas are equipped throughout with an automatic



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~~smoke detection system in accordance with Section 907.2 and are separated from the remainder of the building by not less than 1 hour fire barriers constructed in accordance with Section 707 of the International Building Code or not less than 2 hour horizontal assemblies constructed in accordance with Section 711 of the International Building Code, or both.~~

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

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

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

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

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

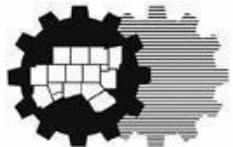
Exception: Unless otherwise required by this code, floors classified as an open parking garage are not required to be sprinklered.

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

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

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

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



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

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

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

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

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

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

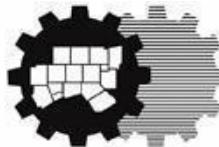
*(Reason: Fire departments are unable to regularly inspect the interior of these commercial occupancies and are unaware of the contents being stored.)*

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

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

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

**\*\*Option A**



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

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

**Exception:**

1. Occupancies in Group F-2.

**903.2.11.7 High-Piled Combustible Storage.** For any building with a clear height exceeding 12 feet (4572 mm), see Chapter 32 to determine if those provisions apply.

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

**\*\*\*Option B**

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

**903.2.11.3 Buildings 55 35 feet or more in height.** An automatic sprinkler system shall be installed throughout buildings that have one or more stories ~~with an occupant load of 30 or more, other than penthouses in compliance with Section 1511 of the International Building Code~~, located 55 35 feet (46 764 10 668 mm) or more above the lowest level of fire department vehicle access, measured to the finished floor.

**Exception:**

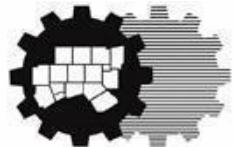
1. Occupancies in Group F-2.

**903.2.11.7 High-Piled Combustible Storage.** For any building with a clear height exceeding 12 feet (4572 mm), see Chapter 32 to determine if those provisions apply.

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

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

Exception: Open parking garages complying with 903.2.10



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

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

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

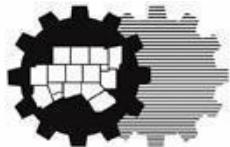
1. A room or space where sprinklers constitute a serious life or fire hazard because of the nature of the contents, where approved by the fire code official.
2. Generator and transformer rooms, under the direct control of a public utility, separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a fire-resistance rating of not less than 2 hours.
3. ~~Rooms or areas that are of noncombustible construction with wholly noncombustible contents.~~
4. ~~Fire service access~~ Elevator machine rooms, and machinery spaces, and hoistways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances.
5. ~~Machine rooms, machinery spaces, control rooms and control spaces associated with occupant evacuation elevators designed in accordance with Section 3008 of the International Building Code.~~

*(Reason: Gives more direction to code official. Exception 3 deleted to provide protection where fire risks are poorly addressed. Amendment 903.2 addresses Exception 5 above relative to the elimination of sprinkler protection in these areas to avoid the shunt trip requirement.)*

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

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

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



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*fire in dry pipe systems, detecting any blockages in the pipe network, and ensuring the dry pipe valve is in good condition.)*

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

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

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

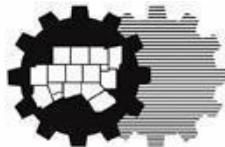
*(Reason: Corridor protection is critical to the means of egress, and corridors are regularly utilized for miscellaneous storage, fixtures, artwork, food kiosks and beverage dispensers, and furnishings. Balcony protection is required due to issues with fire exposure via soffit vents and the potential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

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

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

1. Attics that are used or intended for living purposes or storage shall be protected by an automatic sprinkler system.
2. Where fuel-fired equipment is installed in an unsprinklered attic, not fewer than one quick-response intermediate temperature sprinkler shall be installed above the equipment.
3. Attic spaces of buildings that are two or more stories in height above grade plane or above the lowest level of fire department vehicle access.
4. Group R-4, Condition 2 occupancy attics not required by Item 1 or 3 to have sprinklers shall comply with one of the following:
  - 4.1. Provide automatic sprinkler system protection.
  - 4.2. Provide a heat detection system throughout the attic that is arranged to activate the building fire alarm system.
  - 4.3. Construct the attic using noncombustible materials.
  - 4.4. Construct the attic using fire-retardant-treated wood complying with Section 2303.2 of the International Building Code.
  - 4.5. Fill the attic with noncombustible insulation.

*(Reason: Attic protection is required due to issues with fire exposure via soffit vents, as well as firefighter safety. Several jurisdictions indicated experience with un-protected attic fires*



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*resulting in displacement of all building occupants. NFPA 13 provides for applicable attic sprinkler protection requirements, as well as exemptions to such, based on noncombustible construction, etc. Attached garages already require sprinklers via NFPA 13R – this amendment just re-emphasizes the requirement.)*

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

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

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

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

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

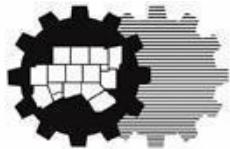
**903.3.1.4.1 Attics.** Only dry-pipe, preaction, or listed antifreeze automatic fire sprinkler systems shall be allowed to protect unheated attic spaces.

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

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

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

*(Reason: In the last few years, severe winters brought to light several issues with current practices for sprinklering attics, not the least of which was wet-pipe sprinklers in ventilated attics provided with space heaters, etc. for freeze protection of such piping. This practice is not acceptable for the protection of water-filled piping in a ventilated attic space as it does not provide a reliable means of maintaining the minimum 40 degrees required by NFPA, wastes energy, and presents a potential ignition source to the attic space. The intent of this amendment is to help reduce the large number of freeze breaks that have occurred in the past with water-filled wet-pipe sprinkler systems in the future, most specifically in attic spaces.)*



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

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

*(Reason: To define uniform safety factor for the region.)*

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

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

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

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

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

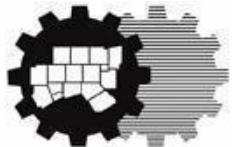
Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45 seconds. Reference Section 903.3.9 for required floor control assemblies. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

*(Reason: To avoid significant water losses, reduce false alarms, and eliminate undetected tampering of water supplies. Consistent with amendment to IFC 905.9.)*

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

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

*(Reason: Fire department connections are not always located at the riser; this allows the fire department faster access and ease of recognition of the FDC location, especially at night.)*



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

**905.3.8 Buildings Exceeding 10,000 sq. ft.** In buildings exceeding 10,000 square feet in area per story and where any portion of the building's interior area is more than 200 feet (60960 mm) of travel, vertically and horizontally, from the nearest point of fire department vehicle access, Class I standpipes shall be provided.

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

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

5. Where the roof has a slope less than 4 units vertical in 12 units horizontal (33.3-percent slope), each standpipe shall be provided with a two-way a-hose connection shall be located to serve the roof or at the highest landing of an interior exit stairway with stair access to the roof provided in accordance with Section 1011.12.
6. {No change.}
7. When required by this Chapter, standpipe connections shall be placed adjacent to all required exits to the structure and at two hundred feet (200') intervals along major corridors thereafter, or as otherwise approved by the fire code official.

*(Reason: Item 5 reduces the amount of pressure required to facilitate the required testing of NFPA 14 and 25, and provides backup protection for fire fighter safety. Item 7 allows for the rapid deployment of hose lines to the body of the fire.)*

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

**905.8 Dry standpipes.** Dry standpipes shall not be installed.

**Exception:** Where subject to freezing and in accordance with NFPA 14. Additionally, manual dry standpipe systems shall be supervised with a minimum of 10 psig and a maximum of 40 psig air pressure with a high/low Supervisory alarm.

*(Reason: To define manual dry standpipe supervision requirements. Helps ensure the integrity of the standpipe system via supervision, such that open hose valves will result in a supervisory low air alarm. NFPA 14 requires supervisory air for such, but does not provide pressure criteria for what that means.)*

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

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45 seconds. Reference Section 903.3.9 for required floor control assemblies. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.



*(Reason: To avoid significant water losses. Consistent with amendment to IFC 903.4.1)*

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

~~3. In storage areas of Group S occupancies where forklift, powered industrial truck or powered cart operators are the primary occupants, fixed extinguishers, as specified in NFPA 10, shall not be required where in accordance with all of the following:~~

- ~~3.1. Use of vehicle mounted extinguishers shall be approved by the fire code official.~~
- ~~3.2. Each vehicle shall be equipped with a 10 pound, 40A:80B:C extinguisher affixed to the vehicle using a mounting bracket approved by the extinguisher manufacturer or the fire code official for vehicular use.~~
- ~~3.3. Not less than two spare extinguishers of equal or greater rating shall be available on site to replace a discharged extinguisher.~~
- ~~3.4. Vehicle operators shall be trained in the proper operation, use and inspection of extinguishers.~~
- ~~3.5. Inspections of vehicle mounted extinguishers shall be performed daily.~~

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

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

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

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

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

**907.2.1 Group A.** A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group A occupancies ~~where the having an~~ occupant load ~~due to the assembly occupancy is of~~ 300 or more persons, or where the Group A occupant load is more than 100 persons above or below the *lowest level of exit discharge*. Group A occupancies not separated from one another in accordance with Section 707.3.10 of the *International Building Code* shall be considered as a single occupancy for the purposes of applying this section. Portions of Group E occupancies occupied for assembly purposes shall be



provided with a fire alarm system as required for the Group E occupancy.

**Exceptions:** {No change.}

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

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

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

**Exceptions:**

1. {No change.}
  - 1.1. Residential In-Home day care with not more than 12 children may use interconnected single station detectors in all habitable rooms. (For care of more than five children 2 1/2 or less years of age, see Section 907.2.6.)

{No change to remainder of exceptions.}

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

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

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

Exception: {No change.}

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

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



3. Open air portions of buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the *International Building Code*; however, this exception does not apply to accessory uses including but not limited to sky boxes, restaurants, and similarly enclosed areas.

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

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

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

*(Reason: Helps to reduce false alarms.)*

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

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

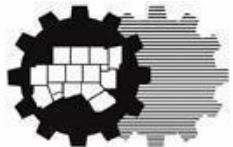
*(Reason: To provide uniformity in system specifications and guidance to design engineers. Improves reliability of fire alarm devices and systems.)*

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

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

**Exceptions:**

1. ~~Fire alarm systems in single story buildings less than 22,500 square feet (2090 m<sup>2</sup>) in area.~~
2. ~~Fire alarm systems that only include manual fire alarm boxes, waterflow initiating devices and not more than 10 additional alarm initiating devices.~~
3. ~~Special initiating devices that do not support individual device identification.~~



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4. ~~Fire alarm systems or devices that are replacing existing equipment.~~

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

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

See 907.6.3 for the required information transmitted to the supervising station.

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

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

**910.2.3 Group H. Buildings and portions thereof used as a Group H occupancy as follows:**

1. In occupancies classified as Group H-2 or H-3, any of which are more than 15,000 square feet (1394 m<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.

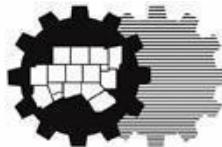
**Exception: Buildings of noncombustible construction containing only noncombustible materials.**

*(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.)*

**\*\*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*



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*exterior of the building opening doors manually. Such requires a significant number of first responders on scene to conduct this operation and significantly delays activation and/or capability of the smoke exhaust system.)*

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

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

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

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

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

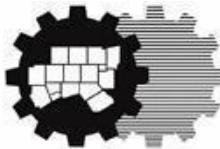
**Exception:** When it is necessary to locate the fire pump room on other levels or not at an exterior wall, the corridor leading to the fire pump room access from the exterior of the building shall be provided with equivalent fire resistance as that required for the pump room, or as approved by the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

*(Reason: This requirement allows firefighters safer access to the fire pump room. The requirement allows access without being required to enter the building and locate the fire pump room interior access door during a fire event. The exception recognizes that this will not always be a feasible design scenario and as such, provides an acceptable alternative to protect the pathway to the fire pump room.)*

**\*\*Section 914.3.1.2; change to read as follows:**

**914.3.1.2 Water Supply to required Fire Pumps.** In all buildings that are more than 420 120 feet (128 36.6 m) in building height, and buildings of Type IVA and IVB construction that are more than 120 feet (36.6 m) in building height, required fire pumps shall be supplied by connections to no fewer than two water mains located in different streets. Separate supply piping shall be provided between each connection to the water main and the pumps. Each connection and the supply piping between the connection and the pumps shall be sized to supply the flow and pressure required for the pumps to operate.

**Exception:** {No change to exception.}



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

**\*\*\*Section 915; delete and replace to read as follows:**

**915.1 General.** Carbon monoxide (CO) detection shall be installed in new buildings in accordance with Section 915.1.1. Carbon monoxide detection shall be installed in existing buildings in accordance with Section 1103.9.

**Exception:** Carbon monoxide detection is not required in Group S, Group F and Group U occupancies that are not normally occupied.

**915.1.1 Where required.** Carbon monoxide detection shall be installed in the locations specified in Section 915.2 where any of the following conditions exist.

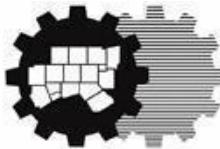
1. In buildings that contain a CO source.
2. In buildings that contain or are supplied by a CO producing forced-air furnace.
3. In buildings with attached private garages.
4. In buildings that have a CO producing vehicle that is used within the building.

**915.2 Locations.** Carbon monoxide detection shall be installed in the locations specified in Sections 915.2.1 through 915.2.3.

**915.2.1 Dwelling units.** Carbon monoxide detection shall be installed in dwelling units outside of each separate sleeping area in the immediate vicinity of the bedrooms. Where a CO source is located within a bedroom or its attached bathroom, carbon monoxide detection shall be installed within the bedroom.

**915.2.2 Sleeping units.** Carbon monoxide detection shall be installed in sleeping units.

**Exception:** Carbon monoxide detection shall be allowed to be installed outside of each separate sleeping area in the immediate vicinity of the sleeping unit where the sleeping unit or its attached bathroom does not contain a CO source and is not served by a CO-producing forced-air furnace.



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**915.2.3 Group E occupancies.** A carbon monoxide system that uses carbon monoxide detectors shall be installed in Group E occupancies. Alarm signals from carbon monoxide detectors shall be automatically transmitted to an on-site location that is staffed by school personnel.

**Exception:** Carbon monoxide alarm signals shall not be required to be automatically transmitted to an on-site location that is staffed by school personnel in Group E occupancies with an occupant load of 30 or less.

**915.2.4 CO-producing forced-air furnace.** Carbon monoxide detection complying with Item 2 of Section 915.1.1 shall be installed in all enclosed rooms and spaces served by a fuel-burning, forced-air furnace.

**Exceptions:**

1. Where a carbon monoxide detector is provided in the first room or space served by each main duct leaving the furnace, and the carbon monoxide alarm signals are automatically transmitted to an approved location.
2. Dwelling units that comply with Section 915.2.1.

**915.2.5 Private garages.** Carbon monoxide detection complying with Item 3 of Section 915.1.1 shall be installed within enclosed occupiable rooms or spaces that are contiguous to the attached private garage.

**Exceptions:**

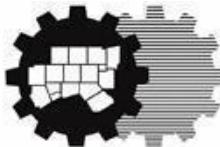
1. In buildings without communicating openings between the private garage and the building.
2. In rooms or spaces located more than one story above or below a private garage.
3. Where the private garage connects to the building through an open-ended corridor.
4. An open parking garage complying with Section 406.5 of the International Building Code or an enclosed parking garage complying with Section 406.6 of the International Building Code shall not be considered a private garage.
5. Dwelling units that comply with Section 915.2.1.

**915.2.6 All other occupancies.** For locations other than those specified in Sections 915.2.1 through 915.2.5, carbon monoxide detectors shall be installed on the ceiling of enclosed rooms or spaces containing CO-producing devices or served by a CO source forced-air furnace.

**Exception:** Where environmental conditions prohibit the installation of carbon monoxide detector in an enclosed room or space, carbon monoxide detectors shall be installed in an approved enclosed location contiguous with the room or space that contains a CO source.

**915.3 Carbon monoxide detection.** Carbon monoxide detection required by Sections 915.1 through 915.2.3 shall be provided by carbon monoxide alarms complying with Section 915.4 or carbon monoxide detection systems complying with Section 915.5.

**915.3.1 Alarm limitations.** Carbon monoxide alarms shall only be installed in dwelling units and in sleeping units. They shall not be installed in locations where the code requires carbon monoxide detectors to be used.



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**915.3.2 Fire alarm system required.** New buildings that are required by Section 907.2 to have a fire alarm system and by Section 915.2 to have carbon monoxide detectors shall be connected to the fire alarm system in accordance with NFPA 72.

**915.3.3 Fire alarm systems not required.** In new buildings that are not required by Section 907.2 to have a fire alarm system, carbon monoxide detection shall be provided by one of the following:

1. Carbon monoxide detectors connected to an approved carbon monoxide detection system in accordance with NFPA 72.
2. Carbon monoxide detectors connected to an approved combination system in accordance with NFPA 72.
3. Carbon monoxide detectors connected to an approved fire alarm system in accordance with NFPA 72.
4. Where approved by the fire code official, carbon monoxide alarms maintained in accordance with the manufacturer's instructions.

**915.3.4 Installation.** Carbon monoxide detection shall be installed in accordance with NFPA 72 and the manufacturer's instructions.

**915.4 Carbon monoxide alarms.** Carbon monoxide alarms shall comply with Sections 915.4.1 through 915.4.4.

**915.4.1 Power source.** Carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than that required for overcurrent protection.

**Exception:** Where installed in buildings without commercial power, battery powered carbon monoxide alarms shall be an acceptable alternative.

**915.4.2 Listings.** Carbon monoxide alarms shall be listed in accordance with UL 2034.

**915.4.3 Combination alarms.** Combination carbon monoxide/smoke alarms shall be an acceptable alternative to carbon monoxide alarms. Combination carbon monoxide/smoke alarms shall be listed in accordance with UL 217 and UL 2034.

**915.4.4 Interconnection.** Where more than one carbon monoxide alarm is required to be installed, carbon monoxide alarms shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms. Physical interconnection of carbon monoxide alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm.

**915.5 Carbon monoxide detection systems.** Carbon monoxide detection systems shall be an acceptable alternative to carbon monoxide alarms and shall comply with Sections 915.5.1 through 915.5.3.



**915.5.1 General.** Carbon monoxide detectors shall be listed in accordance with UL 2075.

**915.5.2 Locations.** Carbon monoxide detectors shall be installed in the locations specified in Section 915.2. These locations supersede the locations specified in NFPA 72.

**915.5.3 Combination detectors.** Combination carbon monoxide/smoke detectors shall be an acceptable alternative to carbon monoxide detectors, provided that they are listed in accordance with UL 268 and UL 2075.

**915.5.4 Occupant notification.** Activation of a carbon monoxide detector shall annunciate at the control unit and shall initiate audible and visible alarm notification throughout the building.

**Exception:** Occupant notification is permitted to be limited to the area where the carbon monoxide alarm signal originated and other signaling zones in accordance with the fire safety plan, provided that the alarm signal from an activated carbon monoxide detector is automatically transmitted to an approved on-site location or off-premises location.

**915.5.5 Duct detection.** Carbon monoxide detectors placed in environmental air ducts or plenums shall not be used as a substitute for the required protection in Section 915.

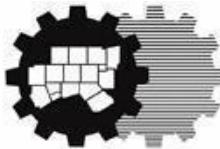
**915.6 Maintenance.** Carbon monoxide alarms and carbon monoxide detection systems shall be maintained in accordance with NFPA 72. Carbon monoxide alarms and carbon monoxide detectors that become inoperable or begin producing end of life signals shall be replaced.

**915.6.1 Enclosed parking garages.** Carbon monoxide and nitrogen dioxide detectors installed in enclosed parking garages in accordance with Section 404.1 of the International Mechanical Code shall be maintained in accordance with the manufacturer's instructions and their listing. Detectors that become inoperable or begin producing end of life signals shall be replaced.

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

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

**915.2.1 Interior spaces with direct carbon monoxide sources.** In all occupancies, interior spaces with a direct carbon monoxide source shall be provided with carbon monoxide detection located in close proximity to the direct carbon monoxide source and in accordance with Section 915.3.



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Exception: Where environmental conditions in an enclosed space are incompatible with carbon monoxide detection devices, carbon monoxide detection shall be provided in an approved adjacent location.

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

**Exceptions:**

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

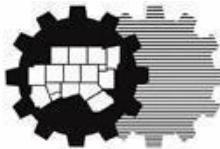
**915.2.3 Interior spaces with forced-indirect carbon monoxide sources.** In all occupancies, interior spaces with a forced-indirect carbon monoxide source shall be provided with carbon monoxide detection in accordance with either of the following:

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

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

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

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



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

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

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

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

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

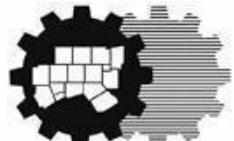
**915.4.1.1 Power source.** In buildings with a wired power source, carbon monoxide alarms shall receive their primary power from a permanent connection to building wiring, with no disconnecting means other than for overcurrent protection, and shall be provided with a battery backup. In buildings without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

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

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

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

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



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

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

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

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

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

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

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

\*\*Section 1006.2.1; change Exception #3 to read as follows:

**1006.2.1 Egress based on occupant load and common path of egress travel distance.** Two exits or exit doorways from any space shall be provided where the design occupant load or the common path of egress travel distance exceeds the values listed in Table 1006.2.1. The



cumulative occupant load from adjacent rooms, areas or space shall be determined in accordance with Section 1004.2.

**Exceptions:**

1. {No change.}
2. {No change.}
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 may be exempted.)*

**\*\*Section 1103.5.3; add sentence to read as follows:**

Fire sprinkler system installation shall be completed within 24 months from date of notification by the fire code official.

*(Reason: Regional consistency of this retroactive requirement to allow business owners adequate time to budget to accommodate the cost of the fire sprinkler system.)*

**\*\*Section 1103.5.6; add to read as follows:**

**1103.5.6 Spray Booths and Rooms.** Existing spray booths and spray rooms shall be protected by an approved automatic fire-extinguishing system in accordance with Section 2404.

*(Reason: Consistent with amendment to IFC 2404, and long-standing regional requirement to protect this hazardous operation.)*

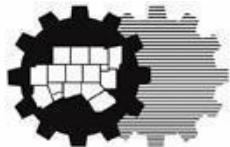
**\*\*Section 1103.7.7; add to read as follows:**

**1103.7.7 Fire Alarm System Design Standards.** Where an existing fire alarm system is upgraded or replaced, the devices shall be addressable. Fire alarm systems utilizing more than 20 smoke and/or heat detectors shall have analog initiating devices.

**Exception:** Existing systems need not comply unless the total building, or fire alarm system, remodel or expansion exceeds 30% of the building. When cumulative building, or fire alarm system, remodel or expansion initiated after the date of original fire alarm panel installation exceeds 50% of the building, or fire alarm system, the fire alarm system must comply within 18 months of permit application.

**1103.7.7.1 Communication requirements.** Refer to Section 907.6.6 for applicable requirements.

*(Reason: To assist responding personnel in locating the emergency event and provide clarity as to percentages of work that results in a requirement to upgrade the entire fire alarm system.)*



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\*\*\* **Section 1103.9; delete and change to read as follows:**

**1103.9 Carbon monoxide detection.** Carbon monoxide detection shall be installed in existing buildings where any of the conditions identified in Section 915.1.1 exist. Carbon monoxide alarms shall be installed in the locations specified in Section 915.2 and the installation shall be in accordance with Section 915.4.

Exceptions:

1. Carbon monoxide alarms are permitted to be solely battery operated where the code that was in effect at the time of construction did not require carbon monoxide detectors to be provided.
2. Carbon monoxide alarms are permitted to be solely battery operated in dwelling units that are not served from a commercial power source.
3. A carbon monoxide detection system in accordance with Section 915.5 shall be an acceptable alternative to carbon monoxide alarms.

**1103.9 Carbon monoxide detection.** Carbon monoxide detection shall be installed in existing buildings in accordance with Section 915.

(Reason: The final version of the 2024 edition text for Section 1103.9 that was approved fell short of clearly conveying requirements. Furthermore, the adopted code text seems to require a level of protection for some occupancies that is excessive and for other occupancies insufficient. This wording matches the approved changes in the 2027 IFC)

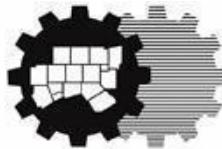
\*\*\* **Section 1201.4; add to read as follows:**

**1201.4 Electrical Shutdown.** Energy systems including solar photovoltaic power systems, stationary fuel cell power systems, or electrical energy storage systems shall have a remote power shut down box. The location shall be at an *approved* location. The box shall only be accessible by the fire department and shall be keyed to the fire department Key Box as outlined in Section 506.

(Reason: To provide a secure electrical disconnect located where Fire responders are able to shut down power to these systems in an emergency)

\*\*\* **Section 1207.2; add to read as follows:**

**1207.2 Commissioning, decommissioning, operation and maintenance.** Commissioning, decommissioning, operation and maintenance shall be conducted in accordance with this section. In addition to the ordinary inspection and test requirements that buildings, structures and parts thereof are required to undergo, Energy Storage Systems subject to the provisions of Section 1207 shall undergo special inspections and tests sufficient to verify the proper commissioning of the Energy Storage System in its final installed condition. The design submission accompanying the construction documents shall clearly detail procedures and methods to be used and the items



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subject to such inspections and tests. Such commissioning shall be in accordance with generally accepted engineering practice and, where possible, based on published standards for the particular testing involved. The special inspections and tests required by this section shall be conducted under the same terms as in Chapter 17 of the International Building Code.

*(Reason: Installation of these systems require specialized knowledge to ensure they are installed and function to code. These systems integrate multiple disciplines including, electrical, mechanical, and fire protection systems.)*

**\*\*Section 2304.1; change to read as follows:**

**2304.1 Supervision of Dispensing.** The dispensing of fuel at motor fuel-dispensing facilities shall be conducted by a qualified attendant or shall be under the supervision of a qualified attendant at all times or shall be in accordance with Section 2204.3. the following:

1. Conducted by a qualified attendant; and/or,
2. Shall be under the supervision of a qualified attendant; and/or
3. Shall be an unattended self-service facility in accordance with Section 2304.3.

At any time, the qualified attendant of item Number 1 or 2 above is not present, such operations shall be considered as an unattended self-service facility and shall also comply with Section 2304.3.

*(Reason: Allows a facility to apply the attended and unattended requirements of the code when both are potentially applicable.)*

**\*\*Section 2401.2; delete this section in its entirety.**

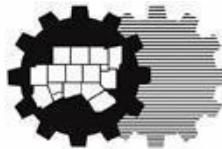
**Section 2401.2 Nonapplicability.** This chapter shall not apply to spray finishing utilizing flammable or combustible liquids that do not sustain combustion, including:

1. Liquids that do not have a fire point when tested in accordance with ASTM D92.
2. Liquids with a flashpoint greater than 95°F (35°C) in a water-miscible solution or dispersion with a water and inert (noncombustible) solids content of more than 80 percent by weight.

*(Reason: This section eliminates such booths from all compliance with Chapter 24 including, but not limited to: size, ventilation, fire protection, construction, etc. If the product utilized is changed to a more flammable substance, the lack of compliance with Chapter 24 could result in significant fire or deflagration and subsequent life safety hazard.)*

**\*\*Section 3307.1; change to read as follows:**

**Section 3307.1 Required access.** Approved vehicle access for firefighting and emergency



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response shall be provided to all construction or demolition sites. Vehicle access shall be provided to within ~~400~~ 50 feet (~~30~~ 480 ~~15~~ 240 mm) of temporary or permanent fire department connections. Vehicle access shall be provided by either temporary or permanent roads, capable of supporting vehicle loading under all weather conditions. Vehicle access shall be maintained until permanent fire apparatus access roads are available. When fire apparatus access roads are required to be installed for any structure or development, access shall be approved prior to the time which construction has progressed beyond completion of the foundation of any structure. Whenever the connection is not visible to approaching fire apparatus, the fire department connection shall be indicated by an approved sign.

*(Reason: Improves access to the FDC where required, as well as coordinates with the timing of installation amendment from Section 501.4.)*

**\*\*\*Section 3307.1.2; change to read as follows:**

**3307.1.2 Stairways required.** Where building construction exceeds 40 feet (12 192 mm) in height above the lowest level of fire department vehicle access, a temporary or permanent stairway shall be provided. As construction progresses, such stairways shall be extended to within one floor of the highest point of construction having secured decking or flooring. Whenever the stairways are not visible to approaching fire apparatus, the stairways locations shall be indicated by an approved sign.

*(Reason: Improves access to the stairways where required.)*

**\*\*\*Section 3307.5.3; add section to read as follows:**

**3307.5.3 Standpipe Signage.** Whenever the standpipes are not visible to approaching fire apparatus, locations shall be indicated by an approved sign.

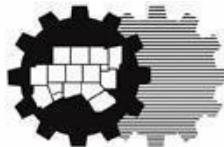
*(Reason: Improves access to the standpipes where required.)*

**\*\*\*Section 4104.2; change to read as follows:**

**4104.2 Open-flame Cooking Devices.** Charcoal burners and other open-flame cooking devices, charcoal grills and other similar devices used for cooking shall not be operated or located on combustible balconies, decks, or within 10 feet (3048 mm) of combustible construction.

**Exceptions:**

1. One- and two-family dwellings where LP-gas containers are limited to a water capacity not greater than 50 pounds (22.68 kg) [nominal 20-pound (9.08 kg) LP-gas capacity] with an aggregate LP-gas capacity not to exceed 100 pounds (5 containers). All LP-gas containers shall be stored outside, as per Chapter 61.
2. Where buildings, balconies and decks are protected by an approved automatic sprinkler system, and LP-gas containers are limited to a water capacity not greater than 50 pounds (22.68 kg) [nominal 20-pound (9.08 kg) LP-gas capacity], with an



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aggregate LP-gas capacity not to exceed 40 lbs. (2 containers). All LP-gas containers shall be stored outside, as per Chapter 61.

3. LP-gas cooking devices having LP-gas containers with a water capacity not greater than 2-1/2 pounds [nominal 1-pound (0.454 kg) LP-gas capacity].

*(Reason: Decrease fire risk in multi-family dwellings and minimize ignition sources and clarify allowable limits for 1 & 2 family dwellings, and allow an expansion for sprinklered multi-family uses. This amendment adds clarification and defines the container size allowed for residences.)*

***\*\*Section 5601.1.3; change to read as follows:***

**5601.1.3 Fireworks.** The possession, manufacture, storage, sale, handling, and use of fireworks are prohibited.

**Exceptions:**

1. Only when approved for fireworks displays, the storage and handling of fireworks as allowed in Section 5604 and 5608.
2. ~~Manufacture, assembly and testing of fireworks as allowed in Section 5605.~~
3. 2. The use of fireworks for approved fireworks displays as allowed in Section 5608.
4. ~~The possession, storage, sale... {Delete remainder of text.}~~

*(Reason: Restricts fireworks to approved displays only, which is consistent with regional practice. Such is intended to help protect property owners and individuals from unintentional fireworks fires within the jurisdiction, as well as to help protect individuals from fireworks injuries. It is noted that there has been a change in the State Law to allow possession of unopened fireworks in certain areas of the vehicle, and it is highly recommended that AHJ's familiarize themselves with the applicable State Laws in this regard.)*

***\*\*Section 5703.6; add sentence to end of paragraph to read as follows:***

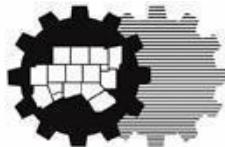
An approved method of secondary containment shall be provided for underground tank and piping systems.

*(Reason: Increased protection in response to underground leak problems and remediation difficulty in underground applications. Coordinates with TCEQ requirements.)*

***\*\*Section 5704.2.11.4; change to read as follows:***

**5704.2.11.4 Leak Prevention.** Leak prevention for underground tanks shall comply with Sections 5704.2.11.4.1 and 5704.2.11.4.2 through 5704.2.11.4.3. An approved method of secondary containment shall be provided for underground tank and piping systems.

*(Reason: Increased protection in response to underground leak problems and remediation*



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*difficulty in underground applications. Coordinates with TCEQ requirements.)*

**\*\*Section 5704.2.11.4.2; change to read as follows:**

**5704.2.11.4.2 Leak Detection.** Underground storage tank systems shall be provided with an *approved* method of leak detection from any component of the system that is designed and installed in accordance with NFPA 30 and as specified in Section 5704.2.11.4.3.

*(Reason: Reference to IFC Section 5704.2.11.4.3 amendment.)*

**\*\*Section 5704.2.11.4.3; add to read as follows:**

**5704.2.11.4.3 Observation Wells.** Approved sampling tubes of a minimum 4 inches in diameter shall be installed in the backfill material of each underground flammable or combustible liquid storage tank. The tubes shall extend from a point 12 inches below the average grade of the excavation to ground level and shall be provided with suitable surface access caps. Each tank site shall provide a sampling tube at the corners of the excavation with a minimum of 4 tubes. Sampling tubes shall be placed in the product line excavation within 10 feet of the tank excavation and one every 50 feet routed along product lines towards the dispensers, a minimum of two are required.

*(Reason: Provides an economical means of checking potential leaks at each tank site. This is long-standing regional practice.)*

**\*\*Section 5707.4; add paragraph to read as follows:**

Mobile fueling sites shall be restricted to commercial, industrial, governmental, or manufacturing, where the parking area having such operations is primarily intended for employee vehicles. Mobile fueling shall be conducted for fleet fueling or employee vehicles only, not the general public. Commercial sites shall be restricted to office-type or similar occupancies that are not primarily intended for use by the public.

*(Reason: The general public does not expect a hazardous operation to be occurring in a typical parking lot or for a fuel truck to be traversing such parking lot, temporarily fueling a vehicle, and moving on to the next area in the parking lot to fuel the next vehicle. Vehicular accidents occur in parking lots on a regular basis, but the presence of a fuel truck, especially one in the process of fueling a vehicle with gasoline, greatly adds to the potential risk involved in such accidents. By restricting such operations to the occupancies in question, the employees of the business may be adequately notified to expect such operations to occur in the parking lot.)*

**\*\*{Appendix B Fire-Flow Requirements for Buildings amendments}**

**\*\*Table B105.2; change footnote a. to read as follows:**



a. The reduced fire-flow shall be not less than ~~4,000~~ 1,500 gallons per minute.

*(Reason: The minimum fire-flow of 1,500 gpm for other than one- and two- family dwellings has existed since the 2000 edition of the IFC, as well as the Uniform Fire Code before that. Little to no technical justification was provided for the proposed code change at the code hearings. The board believes that the already-allowed 75 percent reduction in required fire-flow for the provision of sprinkler protection is already a significant trade-off. The minimum 1,500 gpm is not believed to be overly stringent for the vast majority of public water works systems in this region, especially since it has existed as the requirement for so many years. Further, the continued progression of trading off more and more requirements in the codes for the provision of sprinkler protection has made these systems extremely operation-critical to the safety of the occupants and properties in question. In other words, should the sprinkler system fail for any reason, the fire-flow requirements drastically increase from that anticipated with a sprinkler-controlled fire scenario.)*

**\*\*{Appendix D Fire Apparatus Access Roads amendments}**

**\*\*Section D102.1; change to read as follows:**

**D102.1 Access and loading.** Facilities, buildings or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an *approved* fire apparatus access road with an asphalt, concrete or other *approved* driving surface capable of supporting the imposed load of fire apparatus weighing up to ~~75,000~~ 85,000 pounds (~~34 050~~ 38 556 kg).

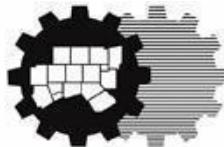
*(Reason: To address the current size of fire trucks in use – figure derived from DOT requirements for waiver of vehicle exceeding such weight and from current maximum weights of fire trucks being purchased by jurisdictions in North Texas.)*

**\*\*Section D103.4; change to read as follows:**

**D103.4 Dead ends.** Dead-end fire apparatus access roads in excess of 150 feet (45 720 mm) shall be provided with width and turnaround provisions in accordance with Table D103.4.

**TABLE D103.4**  
**REQUIREMENTS FOR DEAD-END FIRE APPARATUS ACCESS ROADS**

LENGTH (feet)	WIDTH (feet)	TURNAROUNDS REQUIRED
0–150	<del>20</del> <u>24</u>	None required



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151–500	<del>20</del> <u>24</u>	120-foot Hammerhead, 60-foot "Y" or 96-foot diameter cul-de-sac in accordance with Figure D103.1
501–750	26	120-foot Hammerhead, 60-foot "Y" or 96-foot diameter cul-de-sac in accordance with Figure D103.1
Over 750		Special approval required

For SI: 1 foot = 304.8 mm.

*(Reason: Reflects current increased apparatus access roadway widths as indicated in the recommended amendment to 503.2.1.)*

**\*\*Section D103.5; change Item 1 to read as follows:**

**D103.5 Fire apparatus access road gates.** Gates securing the fire apparatus access roads shall comply with all of the following criteria:

1. Where a single gate is provided, the gate width shall be not less than ~~20~~ 24 feet (~~6096~~ 7315.2 mm). Where a fire apparatus road consists of a divided roadway, the gate width shall be not less than 12 feet (3658 mm).

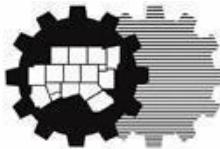
*(Reason: Reflects current increased apparatus access roadway widths as indicated in the recommended amendment to 503.2.1.)*

**\*\*Section D103.6; change to read as follows:**

**D103.6 Signs. Marking.** Striping, signs, or other markings, when approved by the *fire code official*, shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. Striping, signs and other markings shall be maintained in a clean and legible condition at all times and be replaced or repaired when necessary to provide adequate visibility.

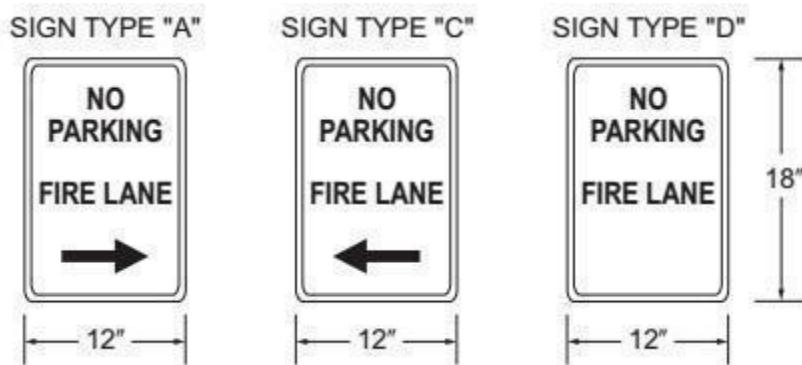
**(1) Striping** – Fire apparatus access roads shall be continuously marked by painted lines of red traffic paint six inches (6") in width to show the boundaries of the lane. The words "NO PARKING FIRE LANE" or "FIRE LANE NO PARKING" shall appear in four inch (4") white letters at 25 feet intervals on the red border markings along both sides of the fire lanes. Where a curb is available, the striping shall be on the vertical face of the curb.

**(2) Signs** – Signs shall read "NO PARKING FIRE LANE" or "FIRE LANE NO PARKING" and shall be 12" wide and 18" high (See Figure D103.6). Signs shall have red letters on a white reflective background, using not less than 2" lettering. Signs shall be permanently affixed to a stationary post and the bottom of the sign shall be six feet, six inches (6'6") above finished grade. Signs shall be spaced not more than fifty feet (50') apart along both sides of the fire lane. Signs may be installed on permanent buildings or walls or as approved by the Fire Chief.



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Where required by the *fire code official*, fire apparatus access roads shall be marked with permanent "NO PARKING FIRE LANE" signs complying with Figure D103.6, or other approved method. Signs shall have a minimum dimension of 12 inches (305 mm) wide by 18 inches (457 mm) high and have red letters on a white reflective background. Signs shall be posted on one or both sides of the fire apparatus road as required by Section D103.6.1 or D103.6.2.



**FIGURE D103.6  
FIRE LANE SIGNS**

(Reason: Reflects current markings for apparatus access roadways as indicated in the recommended amendment to Section 503.3)

**\*\*Section D103.6.1 and D103.6.2; delete sections as follows:**

**D103.6.1 Roads 20 to 26 feet in width.** *Fire lane* signs as specified in Section D103.6 shall be posted on both sides of fire apparatus access roads that are 20 to 26 feet wide (6096 to 7925 mm).

**D103.6.2 Roads more than 26 feet in width.** *Fire lane* signs as specified in Section D103.6 shall be posted on one side of fire apparatus access roads more than 26 feet wide (7925 mm) and less than 32 feet wide (9754 mm).

(Reason: Reflects current markings for apparatus access roadways as indicated in the recommended amendment to 503.3 and D103.6, which requires the signage on both sides of the fire apparatus access roads, regardless of width)

**\*\*Section D104.3; change to read as follows:**

**D104.3 Remoteness.** Where two fire apparatus access roads are required, they shall be placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the lot or area to be served, measured in a straight line between accesses, or as approved by the fire code official.

(Reason: To provide some additional flexibility to the fire code official on the location of the two North Central Texas Council of Governments

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*fire apparatus access roads.)*

**\*\*Section D105.3; change to read as follows:**

**D105.3 Proximity to building.** Unless otherwise approved by the fire code official, one or more of the required access routes meeting this condition shall be located not less than 15 feet (4572 mm) and not greater than 30 feet (9144 mm) from the building, and shall be positioned parallel to one entire side of the building. The side of the building on which the aerial fire apparatus access road is positioned shall be *approved by the fire code official*.

*(Reason: To provide some additional flexibility to the fire code official on the location of the aerial fire apparatus access roads.)*

**\*\*Section D106.3; change to read as follows:**

**D106.3 Remoteness.** Where two fire apparatus access roads are required, they shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses, or as approved by the fire code official.

*(Reason: To provide some additional flexibility to the fire code official on the location of the two fire apparatus access roads.)*

**\*\*Section D107.2; change to read as follows:**

**D107.2 Remoteness.** Where two fire apparatus access roads are required, they shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses, or as approved by the fire code official.

*(Reason: To provide some additional flexibility to the fire code official on the location of the two fire apparatus access roads.)*

**\*\*\*{Appendix L FIREFIGHTER AIR REPLENISHMENT SYSTEMS amendments}**

**\*\*\*Option A**

**\*\*\*Section L101.1; change to read as follows:**

**L101.1 Scope.** Firefighter air replenishment systems (FARS) shall be provided in accordance with this appendix in new buildings where any of the following conditions are met:

1. Buildings with an occupied floor or occupied roof located more than 75 feet (22,860 mm) above the lowest level of fire department vehicle access.
2. Buildings having 2 or more stories below grade plane.



**\*\*\*Option B**

**\*\*\*Section L101.1; change to read as follows:**

**L101.1 Scope.** Firefighter air replenishment systems (FARS) shall be provided in accordance with this appendix in new buildings where any of the following conditions are met:

1. Buildings having 6 or more stories above grade plane.
2. Buildings having 2 or more stories below grade plane.

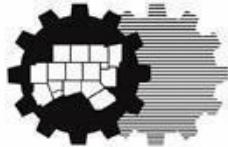
~~The adopting ordinance shall specify building characteristics or special hazards that establish thresholds triggering a requirement for the installation of a FARS. The requirement shall be based on the fire department's capability of replenishing firefighter breathing air during sustained emergency operations. Considerations shall include:~~

1. ~~Building characteristics, such as number of stories above or below grade plane, floor area, type of construction and fire resistance of the primary structural frame to allow sustained firefighting operations based on a rating of not less than 2 hours.~~
2. ~~Special hazards, other than buildings, that require unique accommodations to allow the fire department to replenish firefighter breathing air.~~
3. ~~Fire department staffing level.~~
4. ~~Availability of a fire department breathing air replenishment vehicle.~~

*(Reason: The adoption of Firefighter Air Replenishment Systems (FARS) for specific new construction is critical to meeting operational demands and ensuring firefighter safety during extended interior fireground operations in complex or high-risk structures. Staffing limitations significantly impact the fire department's ability to transport and distribute self-contained breathing apparatus (SCBA) cylinders efficiently—particularly in buildings with substantial vertical travel distances, whether above or below grade. Installing a FARS mitigates these challenges by enabling rapid and efficient air resupply without the need for additional personnel to conduct time-consuming and labor-intensive cylinder shuttle operations. This amendment aligns fire code requirements with the actual capabilities and operational realities of fire departments.*

*Jurisdictions should consider expanding the application of FARS to address operational challenges in additional high-risk building types, as identified in IBC Chapter 16. These additional thresholds address the operational limitations associated with delayed SCBA resupply in large, complex, or continuously occupied structures where interior travel distances and sustained operations may exceed firefighter working time. Such requirements should only be applied where a minimum 2-hour fire-resistive construction is provided for the primary structural frame, stairways, and other critical building elements to ensure the survivability of firefighter access routes.*

*Requiring FARS in buildings that exceed these specific construction thresholds enhances*



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*firefighter safety, supports effective incident mitigation, and ensures sustained operations during long-duration or complex incidents. This approach ensures that FARS provisions are aligned with both fire department operational needs and the inherent risk profile of the building type.)*

**\*\*\*Section L104.13.1; change to read as follows:**

**L104.13.1 Location.** Fill stations for refilling breathing air cylinders shall be located as follows:

1. In the primary stair, as designated by the fire code official, a fill station shall be installed on the first level and on every odd-numbered floor thereafter.
2. In all other stairs, a fill station shall be installed on the second level and on every even-numbered floor thereafter.
  
1. ~~Fill stations shall be provided at the fifth floor above and below the ground level floor and every third floor level thereafter.~~
2. ~~On floor levels requiring fill stations, one fill station shall be provided adjacent to a required exit stair at a location designated by the fire code official. In buildings required to have three or more exit stairs, additional fill stations shall be provided at a ratio of one fill station for every three stairways.~~

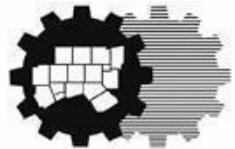
*(Reason: The specified locations for firefighter air replenishment system (FARS) fill stations are based on operational efficiency, responder safety, and ease of access during emergency operations. Locating fill stations in both the primary and secondary stairwells at alternating floor intervals ensures consistent and rapid access to breathing air replenishment throughout the building, without creating congestion in any single stairwell.*

*Jurisdictions considering installation of FARS within large horizontal buildings with a footprint of 500,000 square feet or greater, the FARS connections should be installed at strategic locations, such as no more than 125 feet from corners.)*

**\*\*\*Section L106.1; add paragraph to read as follows:**

The inspecting FARS contractor shall provide annual inspection tag/sticker on the FARS' interior air monitoring panel. Tag/sticker shall identify approved inspecting contractor's name, physical address, phone number, and certified inspector's name, as well as date of inspection. System shall not be tagged until all inspection requirements of this section are conducted. Tag/sticker shall be blue in color for a passing system. If this is not possible for any reason, tag/sticker shall be red in color for a failing system with reasons for failure indicated on the tag if possible. If red tag/sticker is placed, AHJ/Fire Marshal shall be notified immediately within a maximum of 24 hours.)

*(Reason: There is no current state licensing or tagging requirements for these important*



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*firefighter safety systems.)*

***END***